

BIODIVERSITY MANAGEMENT



Within Sustainability, measures to protect biodiversity are critical to achieving healthy ecosystems for nature and people. As a real estate and hospitality company, FIVE Holdings intersects with natural ecosystems from planning to development to operations. Therefore, biodiversity is relevant and important to include within FIVE's Sustainability Strategy. Biodiversity encompasses a multifaceted approach to protecting the natural world including how FIVE does real estate development, plans and manages landscaping, strategizes procurement, handles chemical usage, and builds partnerships with relevant organizations locally and internationally to support nature. With the emergence of nature-based frameworks, such as TNFD and SBTN, building the capacity and awareness around biodiversity is important for businesses more than ever.



For biodiversity management, FIVE has performed a third-party biodiversity impact assessment to identify the impact of its properties in both Dubai and Zurich by using a set of pre-defined methods and criteria. The assessment entails a list of research organizations and international organizations in the region with whom collaborations may result in partaking in initiatives for promoting biodiversity through various approaches. FIVE has set the ambition to engage with a university on an informal or formal basis, at least annually.

Biodiversity targets and action plans have been created as mitigation strategies (Minimize, Avoid, Restore and Offset) and monitored as a part of quarterly meetings under ISO:14001.

In April 2023, FIVE undertook a formal biodiversity assessment by the Germany-based global engineering and design firm Afry. This high-level report served to provide a baseline for which FIVE can formally understand its relation to biodiversity. The report structure included an introduction on key biodiversity concepts, Biodiversity impacts in the tourism industry, followed by a biodiversity assessment of FIVE and concluding with a roadmap of five process-based targets and action plans.

The report identified the current work FIVE has done in monitoring resource efficiency, providing customer awareness, and optimizing sourcing of sustainable-certified products. The assessment followed the mitigation hierarchy in providing its assessment including avoidance, minimization, restoration, and offsetting. The report also analysed FIVE's hotels in proximity to protected areas through desktop-based satellite tools and included risk assessment for each hotel. Following a property-specific risk assessment, the report identified the macro-level biodiversity risks in the host countries of UAE and Switzerland. Following the assessment, the report provided five processed based targets:

1. Optimize Input
2. Optimize Output
3. Biodiversity-friendly management
4. Conservation partnerships programme
5. Low-Impact CAPEX Programme

For each target, the report provided action plans mapped to the mitigation hierarchy, level of impact, FIVE's readiness to implement, pressures addressed by taking each action, followed with an overall assessment and a KPI which can be used to track progress in the future. These action plans related to sustainable procurement, waste management, and direct environmental biodiversity enhancement, reflecting the broad scope of biodiversity that touches other elements of FIVE's environmental management system. Accordingly, FIVE's Biodiversity assessment has been used to inform the action plans of FIVE's standalone waste and procurement strategies. In various cases, the suggested action plan measures have already been initiated at FIVE, reflecting the company's

existing work to promote biodiversity. This includes sourcing animal products and vegetables with sustainable certifications and local farms, using ecologically safe cleaning products, recycling waste including used cooking oil, using organic gardens, optimizing chemical use, recycling wastewater, using glass and plant-based bottles to reduce plastic, adopting nature-based amenities, and promoting pollination through biodiversity and climate-smart landscaping.

Refer the 'Policy on Protected Areas' and 'AFRY Biodiversity report' for more details

Biodiversity Measures and Initiatives

In Dubai, FIVE sources' vegetables locally through Barakat and its local farm partners including Veggie Tech and Themar Al Emarat. These smart agricultural developments promote biodiversity by using bees to naturally pollinate their plants within the semi-open greenhouses, while also reducing the carbon footprint of sourcing produce to the UAE. Products are grown with minimal chemicals and water conservation technology to mitigate further impact on the growing environment.

In-grown mushrooms at local farms

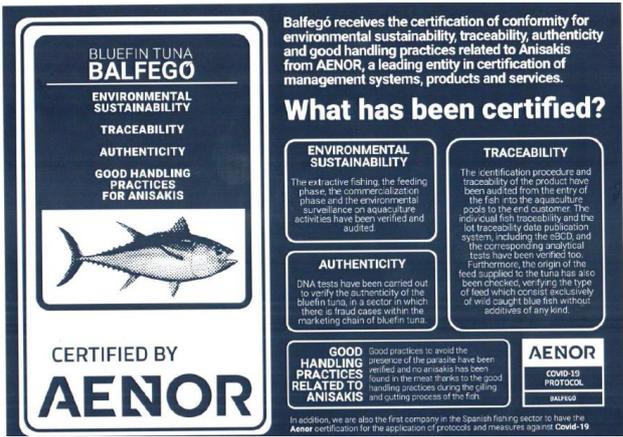
FIVE team visiting local farms



Local produce in UAE



Whether sourcing local truffles, butchery, or herbs in Zurich to utilizing Balfego-certified Blue Fin Tuna, Kagoshima Japanese Beef, or ISO 22000 farm certified mushrooms, FIVE continues to promote biodiversity through sustainable procurement practices.



Balfego receives the certification of conformity for environmental sustainability, traceability, authenticity and good handling practices related to Anisakis from AENOR, a leading entity in certification of management systems, products and services.

What has been certified?

<p>ENVIRONMENTAL SUSTAINABILITY</p> <p>The extractive fishing, the feeding phase, the commercialization phase and the environmental surveillance on aquaculture activities have been verified and audited.</p>	<p>TRACEABILITY</p> <p>The certification procedure and traceability of the product have been audited from the entry of the fish into the aquaculture ponds to the end customer. The individual fish traceability and the lot traceability data publication system, including the eBCD, and the corresponding analytical tests have been verified too. Furthermore the origin of the feed supplied to the tuna has also been checked, verifying the type of feed which consists exclusively of wild caught blue fish without additives of any kind.</p>
<p>AUTHENTICITY</p> <p>DNA tests have been carried out to verify the authenticity of the bluefin tuna, in a sector in which there is fraud cases within the marketing chain of bluefin tuna.</p>	<p>GOOD HANDLING PRACTICES RELATED TO ANISAKIS</p> <p>Good practices to avoid the presence of the parasite have been verified and no anisakis has been found in the most critical to the good handling practices during the chilling and cutting process of the fish.</p>

In addition, we are also the first company in the Spanish fishing sector to have the Aenor certification for the application of protocols and measures against Covid-19.



MSC - FISHERY CERTIFICATE

Certificate No: MSC-F-61465 Initial date: 08 September 2022 Valid until: 08 September 2022 - 07 September 2025

This is to certify that the Fishery operations of

JC Mackintosh greenstick, handline and fishing rod bluefin tuna fishery

Client: ATUN ROJO DEL ESTRECHO
Address: Muelle Pesquero 18,11380, Tarifa, Cádiz, Spain

has been found to comply with the requirements of
MSC Fisheries Standard and Guidance v2.01

Biodiversity Initiatives – Landscaping Projects

FIVE Jumeirah Village Native and Medicinal Landscaping Project

To promote pollinator and climate-amenable landscaping species and to raise customer awareness on biodiversity, FIVE Jumeirah Village has initiated a native and medicinal plant landscaping project. In the first phase of this initiative, the hotel will renovate its 5th floor podium by including three sections of strategic landscaping. The first section will provide a modern aesthetic evocative of FIVE’s home desert climate through an installation of a succulent and cactus garden including a variety of agave species, flowering succulents native to UAE emirates such as Fujairah, and a range of ornamental cacti. Moving across the circular podium, guests will then encounter a stretch of native Ghaf, the UAE national tree, and Neem trees. Finally, the third element of the first phase will include highly medicinal species including Morgina “Tree of Life”, Maswak – famously used as a natural toothbrush by numerous civilizations for thousands of years, orange flowering tecomalla, and Manilla Tamarind. This biodiversity initiative aims to capitalize on FIVE’s iconic green energy and lush landscaping by now including a proactive focus on supporting biodiversity. Upon completion, the sections will include QR coded displays which will allow guests to learn about the cultural, medicinal and biodiversity qualities of the plants.



Ref: BB/MT/PI/FIVE/2023-38ad/r1/00

Date: MARCH 25th, 2023

To:
Five Hotel JVC
Dubai UAE.

Attention: MR. David

SUBJECT: PROPOSAL/QUOTATION NATIVE PLANTS /SUSTAINABLE PLANTS.

FIVE Jumeirah Village Guest Apartment Landscaping Project

In tandem with its speciality native and medicinal plant landscaping project, FIVE Jumeirah Village is undergoing an enhancement of its 59 floors of landscaping in each guest apartment and suite. This project will satisfy FIVE’s aesthetic requirements while including a purposeful, science-informed strategy to source plants that will thrive in the corkscrew facades varying light conditions while also promoting pollination and climate-smart species. The outcome of this project will be to provide luxury level landscaping that is attuned to the climate and varying conditions to thrive while maximizing native or regionally adapted plants that promote pollination.



FIVE Zurich “Insect and Pollinator Hotel” Terrestrial Rooftop

FIVE Zurich champions environmental impact mitigation by its terrestrial green roof. This first reduces the cooling load by minimizing the heat island effect. In addition, the rooftop includes numerous “insect and pollinator Hotel” structures approved by the local government and sourced of wood, stone, and gravel.



This complements the hotel’s 360 degree surrounding of pasture and orchards such that FIVE Zurich provides all of the FIVE high energy entertainment and luxury flare within a subtle setting that promotes biodiversity.

FIVE Palm Jumeirah and FIVE Jumeirah Village Organic Herb Gardens

In 2022, FIVE Palm Jumeirah and FIVE Jumeirah Village established their own small-scale organic herb, vegetables, and citrus gardens. Steps away from FIVE’s homegrown outlets, these organic gardens provide a refreshment of green energy and nature to guests and chefs alike, vibrant flavours as fresh as can be, and a site for pollination attracting local pollinator species that capitalize on FIVE as a biodiversity node in the surrounding region.



FIVE Palm Jumeirah Documentation of Landscaping Species, Natural-based pesticides, and fertilizers

In 2023, FIVE undertook the activity of documenting every plant species on its property including the Latin name. FIVE has set the ambition to undertake a similar exercise for its other operational hotels and to maintain these records in the future.

Where possible, FIVE incorporates natural-based pesticides such as Neem Oil. FIVE aims to continue to monitor its chemical use for treatment of pests and to source natural-based alternatives as much as possible. The same ambition extends to FIVE’s cleaning supplies used by housekeeping.

PRODUCT SPECIFICATION	FORM	CATEGORY
Actara 25 wg	Granules	Insecticide
Imidachchem	Liquid	Insecticide
Abamectin 1.8 ec	Liquid	Miticide/Acaricide
Sanmite 20 wp	Powder	Miticide/Acaricide
Karate	Liquid	Insecticide
Neem oil	Liquid	Insecticide
ECO Oil	Liquid	Insecticide
Uniform 390 SE	Liquid	Fungicide
Carial Star	Liquid	Fungicide
Rhizolex	Powder	Fungicide
Previcur	Liquid	Fungicide
Poltiglia 20 PB Manica	Powder	Fungicide
Ridomil Gold	Granules	Fungicide
FERTILIZER/SOIL CONDITIONER		
Multi N	Liquid	Fertilizer
AMCO-COMBI	Powder	Fertilizer
Fast Green	Powder	Fertilizer
YARA MILA Complex	Granules	Fertilizer
YARA MILA Complex	Soluble	Fertilizer
CALCINET	Granules	Fertilizer
AMCOLON Soluble	Powder	Fertilizer
POATACIUM NITRATE	Granules	Fertilizer
Organic Compost/Manure	Powder	Fertilizer
Cocopeat	NA	Fertilizer/Soil Conditioner
	ORGANIC SUBSTANCES	

This inventory of pesticides and fertilizers used for FIVE landscaping in Dubai identifies those natural-based chemicals. FIVE has set the ambition to increase its percentage of biodiversity friendly products as much as possible.

#	SCIENTIFIC NAME	COMMON NAME
TREES		
1	<i>Ficus benghalensis</i>	Banyan, Banyan fig and Indian banyan
2	<i>Ficus benjamina</i>	Weeping fig, Benjamin fig or Ficus tree
3	<i>Ficus Niitida</i>	Cuban Laurel, Indian Laurel Fig, Green Island Fig, Chinese Banyan
4	<i>Frangania glabra</i>	Pongam, Karum Tree, Poonga-Oil Tree
5	<i>Azadirachta indica</i>	Neem, nintree or Indian lilac
6	<i>Flumeria rubra</i>	Common frangipani, Temple tree
7	<i>Flumeria obtusa</i>	Pagoda tree or White frangipani
8	<i>Cassia fistula</i>	Golden shower tree
9	<i>Conocarpus erectus</i>	buttonwood or button mangrove
PALM TREES		
1	<i>Washingtonia robusta</i>	Mexican fan palm, Mexican washingtonia
2	<i>Rhapis excelsa</i>	Broadleaf lady palm or Bamboo palm
3	<i>Dypsis lutescens</i>	Golden cane palm, Areca palm, Yellow palm, Butterfly palm
4	<i>Chrysalidocarpus lutescens</i>	Areca Palm
5	<i>Howea forsteriana</i>	Kentia palm, thatch palm or palm court palm
6	<i>Zamia furfuracea</i>	Cardboard palm or cardboard cycad
7	<i>Wodyetia bifurcata</i>	Foxtail palm
SHRUBS/BUSHES		
1	<i>Mumaya paniculata</i>	Orange jasmine, orange jessamine, china box or mock orange
2	<i>Hibiscus rosa-sinensis</i>	Chinese hibiscus, China rose, Hawaiian hibiscus, rose mallow
3	<i>Clerodendrum inermis</i>	Wild Jasmine
4	<i>Fandanus Bapititii Variegata</i>	Gold-striped screwpine, Gold-striped screwpine
5	<i>Jasminum sambac</i>	Jasminum sambac
6	<i>Hymenocallis littoralis</i>	Beach spider lily
7	<i>Bougainvillea glabra</i>	lesser bougainvillea or paperflower
8	<i>Bougainvillea spectabilis</i>	Great Bougainvillea, Paper Flower.
9	<i>Bougainvillea pink pixie</i>	Paper Flower, Great Bougainvillea
10	<i>Ficus Microcarpa</i>	Green Island Ficus
11	<i>Ficus microcarpa var. crassifolia</i>	Wax Fig, Taiwan Ficus
12	<i>Fernisatum setaceum Green</i>	Green fountaingrass
13	<i>Ruellia tuberosa</i>	Fever root, snapdragon root and Wild Petunia
14	<i>Sansevieria trifasciata</i>	Snake Plant
15	<i>Sansevieria cylindrica</i>	Cylindrical snake plant, African spear or spear sansevieria
16	<i>Ficus elastica</i>	Rubber fig, Rubber bush, Rubber tree
17	<i>Fachira aquatica</i>	Gurana Chestnut, Provision tree, shaving-brush tree, Marapa Chestnut
18	<i>Ixora chinensis</i>	Chinese ixora
19	<i>Ixora coccinea</i>	Scarlet jungle flame
20	<i>Tabernaemontana divaricata</i>	Pin wheel flower
21	<i>Acalypha wilkesiana</i>	Copperleaf
22	<i>Ehretia microphylla</i>	Fukien Tea Tree, Wild Tea, Scorpion Bush
23	<i>Aloe barbadensis miller</i>	Aloe vera
CLIMBERS		
1	<i>Jasminum grandiflorum</i>	Spanish Jasmine, French Jasmine
2	<i>allamanda cathartica</i>	Golden trumpet
3	<i>Mandevilla splendens</i>	Yellow Bell Climber
GROUND COVERS		
1	<i>Asystasia gangetica Green</i>	Chinese Violet, Creeping Foxglove, Ganges Primrose
2	<i>Asystasia gangetica Variegata</i>	Chinese Violet, Creeping Foxglove, Ganges Primrose
3	<i>Rhoeo discolor</i>	Boat Lily, Oyster Plant, Cradle Lily
4	<i>Sesuvium portulacastrum</i>	Sea Purslane, Gelang Laut
5	<i>Wedelia trilobata</i>	Yellow Creeping Daisy, Singapore Daisy
6	<i>Ipomoea pes-caprae</i>	Beach Morning Glory, Railroad Vine, Sea Morning Glory
7	<i>Portulaca grandiflora</i>	Japanese Rose, Moss Rose
8	<i>Carissa grandiflora Boxwood Beauty</i>	Compact Natal Plum
9	<i>Portulacaria afra</i>	Elephant bush
HERBS		
1	<i>Mentha longifolia</i>	Horsemint
2	<i>Mentha piperita</i>	Peppermint
3	<i>Cymbopogon citratus</i>	Lemon grass
4	<i>Salvia rosmarinus</i>	Rosemary
5	<i>Ocimum basilicum</i>	Basil

FIVE Palm Jumeirah has undertaken a documentation of all its landscaping species to better understand its biodiversity contributions. The company has set the ambition to complete similar inventory across all its operating hotels.

Tree Planting through Emirates Environmental Group Recycling Campaign and Through Botanica Supplier Partnership

FIVE has supported local and global reforestation projects through partnerships including local recycling campaigns hosted by Emirates Environmental Group and through a partnership with its floral supplier Botanica and a tie-up with One Tree Planted. EEG's "One Communi-Tree" Initiative allows recyclers to donate trees for each threshold reached in recyclables.



Likewise, Botanica plants trees in Kenya for every floral arrangement sold, allowing FIVE to contribute to habitat restoration beyond boundaries.

FIVE Sponsoring Beehives in UAE

FIVE has initiated a plan to sponsor honeybee hives on-site or within the sanctuary of Hatta Honey, a UAE national treasure that promotes biodiversity of the UAE's historical landscape while producing top of the line honey produced from native and medicinal trees.



Quotation

ASAL HATTA TRADING LLC DUBAI HATTA Emirate : DUBAI TRN : 100442581300003 E-Mail: m.magdi@anhb.ae		Quotation No. 3010	Dated 15-03-2023		
Buyer FIVE Jumeirah Village Hotel Attn: David Shepley TRN: Emirate: DUBAI Country: UAE TEL: +971 58 880 0425 P O BOX		Delivery Note Supplier's Ref.	Mode/Terms of Payment 100% ADVANCE Other Reference(s)		
Buyer's Order No.		Dated			
Dispatch Document No.		Delivery Note Date			
Despatched through		Destination			
Terms of Delivery					
Sl No.	Description of Goods	Quantity	per	Amount Excl.VAT	VAT %
1	Wooden Beehive with 5 frames of bees	5.00	500	AED 2,500.00	
2	Monthly Management Fees per hive	5.00	150	AED 750.00	
3	Management fees per year	12.00	750	AED 9,000.00	
				AED 11,500.00	
				AED 575.00	
				AED 12,075.00	

Reflecting some of FIVE's substantial efforts to promote biodiversity, FIVE has set the ambition to increase its awareness and focus on biodiversity within its Sustainability Program. By using the AFRY report as a guide in setting priorities and focus

areas, FIVE will continue to expand its initiated programs while developing new initiatives both within the hotel and by working with local organizations to protect habitats, wildlife, and people. As with Sustainability, biodiversity has proven a holistic and interconnected topic that will engage various elements of FIVE’s environmental management and departments.

Targets, Objectives and Action Plans

Sub-Objectives	KPI	Target	Action Plans	Responsible Person	Frequency
Sustainable Procurement					
Reducing impact on biodiversity	% biodiversity friendly items within product categories	Intelligent sourcing of biodiversity-friendly resources for all operations (Source: AFRY <i>Biodiversity Report for FIVE</i>)	<ul style="list-style-type: none"> • Source certified organic products for bars and restaurants and consider recommendations of the TRAFFIC programme • Source organic/sustainably produced fertilizers, herbicides, and chemicals for cleaning/maintenance as much as possible • Source natural and cultural products for guest rooms, public areas, gifts, and souvenir shop, consider sustainably certified products (i.e., Forest Stewardship Council) 	Purchasing Manager, Purchasing Executives	As and when
Biodiversity Targets					
Reducing impact on biodiversity	# of strategic measures implemented across the action plan areas	Improve biodiversity through effective landscape management (Source: AFRY <i>Biodiversity Report for FIVE</i>)	<ul style="list-style-type: none"> • Maximize planting of native flora and insect friendly flowering plants in outdoor facilities and gardens. Source species with differing flowering times to support pollinators throughout the year • Create insect and lizard hotels, bird houses and nests, watering spots within hotel's gardens • Introduce awareness and educational concepts to the hotels, using infographics, signs on flora and fauna etc. that can be found on the premises • Switch to insect-friendly lighting and avoid unnecessary and excessive lighting during night-time 	Purchasing Manager, Director of Sustainability	As and when

			<ul style="list-style-type: none"> • Reduce noise emissions from the hotels • Re-think outdoor concept and explore opportunities for unsealing concrete floors, where feasible, and expanding green spaces • Consider zoning coastal areas to plant mangroves or protect existing forests and creating mini-reefs for biodiversity recovery and ecotourism activities 		
	# of partnership initiatives launched during the year	<p>Engage with conservation organizations and knowledge partners and develop an ecotourism programme</p> <p>(Source: AFRY <i>Biodiversity Report for FIVE</i>)</p>	<ul style="list-style-type: none"> • Avoid activities that risk negative wildlife interactions and disturbances of nature • Explore partnerships with local conservation NGOs and support species conservation, habitat restoration and education programmes • Explore collaborations with universities and research organizations • Increase opportunities for nature-friendly activities in nearby nature reserves 	Purchasing Manager, Director of Sustainability	As and when

All these targets and action plans are monitored as a part of ISO:14001 targets and initiatives through quarterly meetings with the respective stakeholders.