

**PREVENTING EXTINCTION  
IN A CHANGING WORLD:**

**A Conservation Masterplan for Chester Zoo**

**2021 - 2030**

# Foreword

Accredited zoos have long been at the forefront of efforts to conserve biodiversity and they are an integral part of the global IUCN Species Survival Commission network. Their work with animals in their care and wider engagement with *in situ* conservation efforts have saved dozens of species from extinction. Two famous examples are the Scimitar-horned Oryx and the Mauritius Pink Pigeon, who owe their continued existence to the collaborative efforts of zoos. Likewise, the eighty Extinct in the Wild species in the IUCN Red List of Threatened species can only return to nature by the intervention of zoos, aquariums and botanical gardens. Through education of their visitors and members, and their wider engagement with the public, they also play a major part in raising awareness of the plight of biodiversity on our planet.

The magnitude of the extinction crisis requires deliberate, innovative conservation actions. I write this at a pivotal time for nature as world leaders prepare for crucial summits on biodiversity and climate in 2021 that will determine the long-term future of nature on our planet. We must both scale up and connect existing interventions, and find new, transformative approaches if we are going to meet the challenge. Zoos, aquariums and botanical gardens must play a central role in this.

Chester Zoo has risen to the challenge in their Conservation Masterplan. As one of the world's leading conservation-based zoos, Chester Zoo has a special role to play in making the transformation both as a leader in the community and an actor in saving species. This Conservation Masterplan sets out how they will work collaboratively to tackle the biodiversity crisis, by combining direct contributions to restoring populations and landscapes for wildlife, with creating the conditions for reversing further loss of biodiversity, engaging people and influencing policy.

With over two million visits to Chester Zoo in 2019 and similar numbers following the zoo's activity on social media in 2020, the plan capitalizes on the opportunity to connect people with nature and use its voice to create positive change.

I heartily commend all at Chester Zoo for their achievements and vision for the future, and very much look forward to continue to see their work in action in the years to come.

**Jon Paul Rodríguez, PhD**

Chair, IUCN Species Survival Commission  
Instituto Venezolano de Investigaciones Científicas  
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ZOOS LIKE OURS ARE CONSERVATION  
POWERHOUSES. OUR UNIQUE  
COMBINATION OF LIVING COLLECTIONS,  
MILLIONS OF VISITORS, SCIENTIFIC SUPPORT AND  
WIDE RANGING SKILLS CAN BE HARNESSSED  
TO MAKE A SUBSTANTIAL CONTRIBUTION  
TO PREVENT EXTINCTION



A Conservation Masterplan for Chester Zoo

## Introduction

Our world is undergoing rapid and catastrophic environmental change brought about by our unsustainable exploitation of the planet's resources. In 2010 the Convention on Biological Diversity (CBD) set out a target of extinctions prevented and conservation status of threatened species improved by 2020 (known as 'Aichi target 12'). In 2019, the Intergovernmental Science-Policy platform on Biodiversity and Ecosystem Services (IPBES) reviewed progress by collating 15 years of extensive research and revealed that over 1 million species are in immediate danger of extinction, concluding that Aichi target 12 is very far from having been met. Their report calls for **transformative change** in our present patterns of behaviour to end biodiversity loss.

As we enter the decade of the 2020s our relationship with the natural world has been brought into even sharper focus by our experience with the coronavirus pandemic and we are perhaps in the 'last chance saloon' for making this transformative change.

Zoos like ours are **conservation powerhouses**. Our unique combination of living collections, millions of visitors, scientific support and wide ranging skills can be harnessed to make a substantial contribution to the transformative change required. We at Chester Zoo are already at the forefront of tackling biodiversity loss and leading behaviour change amongst our visitors and supporters. Our work is evidence-based, grounded in the interlinking of science and practice.

However, transformative change requires new and more integrated approaches to tackling the biodiversity crisis. We must bring together our skill sets and combine them with those of a wide range of partners to tackle both the biological and anthropological causes of extinction in order to ensure that our planet remains diverse and vibrant.

This Conservation Masterplan for Chester Zoo aims to build on our success and sets out a road map for the delivery of our mission of **preventing extinction** through **close integration of our many different types of conservation work**. At its heart are a set of bold targets that clearly set out the significant contribution we plan to make to Sustainable Development Goals (SDGs) and the successor to the CBD, the post-2020 biodiversity framework.

This forward looking plan covers an initial period of 10 years from 2021 – 2030, and seeks to implement significant parts of the Society's Strategic Plan. It sits alongside the visionary 'Strategic Development Plan' for the physical zoo site over the same time period.

**CONSERVATION  
AND SCIENCE**  
AT CHESTER ZOO

# PREVENTING EXTINCTION IN A CHANGING WORLD USING OUR INTEGRATED APPROACH TO CONSERVATION, BY 2030 WE WILL HAVE:

**PRESERVED** options for future conservation for an additional

**150** 

species through conservation breeding and propagation

**REVERSED** declines of

**200** 

threatened populations of species in the wild

**EMPOWERED**   
**10million**

people to live more sustainably

**TRAINED**   
**5000**

conservationists

**IMPROVED**   
landscapes for wildlife totalling  
**250,000 ha**

**INFLUENCED**  
**5** 

major policy areas for wildlife

Join and help us on our journey to **Preventing Extinction.**

A Conservation Masterplan for Chester Zoo

## OUR Mission and Strategic Objectives

Our mission is **Preventing Extinction.**

We do this by delivering on our six strategic objectives:

1. **Preventing extinction** by achieving the greatest conservation impact
2. **Preventing extinction** by being a world-class visitor attraction
3. **Preventing extinction** by providing exceptional animal and plant care
4. **Preventing extinction** by ensuring financial sustainability
5. **Preventing extinction** by developing our people to be the best
6. **Preventing extinction** by being a voice for change

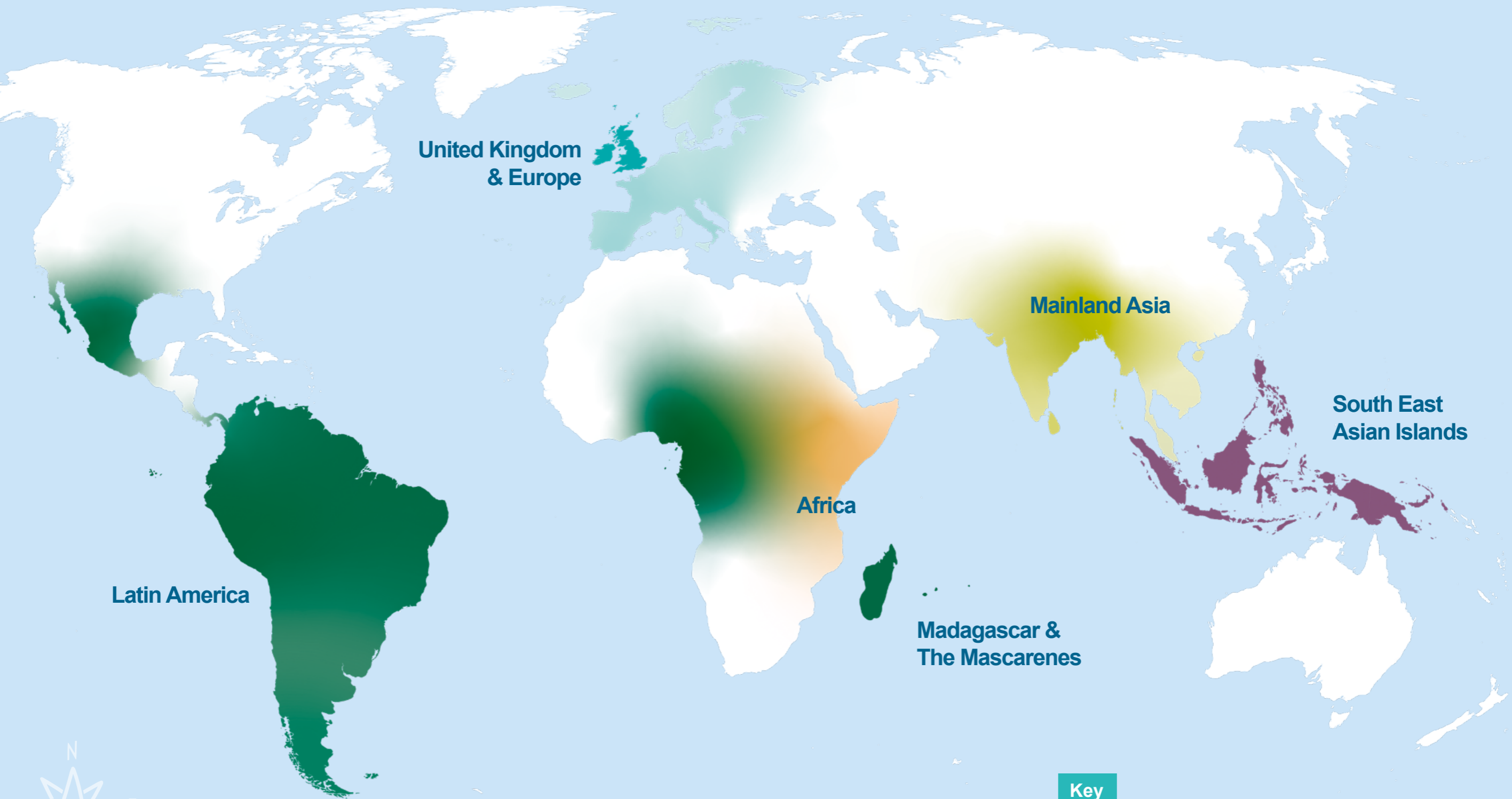
The Conservation Masterplan is a plan to deliver on these objectives (especially 1, 3, 5 and 6) and sits alongside the Chester Zoo Strategic Development Plan which sets out the physical development of the zoo itself into biogeographical zones based on the six major regions where we focus our conservation work.

These regions are:

- |                                    |   |
|------------------------------------|---|
| 1. <b>South East Asian islands</b> | 4. <b>Latin America</b>                   |
| 2. <b>Mainland Asia</b>            | 5. <b>Madagascar &amp; the Mascarenes</b> |
| 3. <b>Africa</b>                   | 6. <b>United Kingdom and Europe</b>       |

# THE REGIONS WHERE WE WORK

We focus our conservation work on the six regions shown on this map which were designed to prioritise the planet's biodiversity hotspots where high biodiversity is combined with the greatest degree of threat.



Within Chester Zoo itself, through our strategic development plan, we are developing biogeographical zones that feature key ecosystems within these regions, and these are shown in the coloured key.

**Key**

- Foothills & Floodplains
- Islands
- Grasslands
- Forests
- Heritage & UK



# THE NORTH OF ENGLAND ZOOLOGICAL SOCIETY: 100 years of conservation

In 1931 Chester Zoo opened its doors, with the express purpose of establishing a 'zoo without bars' to counter traditional ideas at the time of displaying exotic animals in sterile and artificial conditions.

Our founder George Mottershead was passionate about animal welfare, and exhibited animals in naturalistic environments to enable them to behave more naturally and provide people with positive educational experiences. Three years later, in 1934, the North of England Zoological Society, a charity dedicated to animal care and education was established. Chester Zoo is still managed by the North of England Zoological Society but we have expanded

our charitable objectives to embrace biodiversity conservation whilst remaining at the forefront of animal welfare and conservation education.

George Mottershead was a leading light in the zoo community, serving as president of the International Union of Directors of Zoological Gardens, the forerunner of the World Association of Zoos and Aquaria (WAZA), which now takes a central role in the global conservation movement. The WAZA Conservation Strategy 2015-2025 has guided the development of this Conservation Masterplan.

We will mark the 100th anniversary of the opening of Chester Zoo in 2031



by achieving six bold targets laid out in this plan. These achievements will make a significant contribution to the transformative change required to tackle the biodiversity crisis and support the objectives set out in the Sustainable Development Goals and the post-2020 Biodiversity Framework.



**PREVENTING  
EXTINCTION**



# OUR Approach - Integrated Conservation

**Preventing extinction is complex and requires multi-faceted and collaborative approaches to resolve inter-related threats.**

Our work with the animals and plants under our care, underpinned by sound science, and our deep understanding of people, provides a winning combination of skill sets. Added to this, the development of field-based research, often associated with the species with which we work in the zoo, provides an important link to addressing threats in the field.

The 'One Plan' approach has been developed by the International Union for the Conservation of Nature (IUCN) Conservation Planning Specialist Group to promote integrated species conservation planning that considers all populations of a species to be valuable, both inside and outside its natural range and under all conditions of management, with the ultimate goal of viable populations of species thriving in healthy ecosystems. This approach to conservation is strongly advocated by the IUCN, WAZA and regional zoo associations such as the European Association of Zoos and Aquaria (EAZA)

and was the subject of a motion approved by the IUCN World Conservation Congress led by EAZA and co-sponsored by Chester Zoo.

'One Plan' thinking provides the basis of our integrated approach in managing *in situ* and *ex situ* populations together. In addition to managing the populations themselves we take on critical areas of influence for the species - managing landscapes and influencing the actions of people, business and governments.

Our inter-disciplinary teams and extensive network of partners and supporters take a holistic approach to preventing extinction by tackling the '4 Ps': **Populations, Places for wildlife, People and Policy**

**Working together we will solve complex problems by integrating these major components in our conservation delivery.**



## POPULATIONS

Effective management of populations of species both *in situ* (in the wild) and *ex situ* (in zoos and breeding centres) through research, conservation breeding, welfare and monitoring.



## PLACES

Providing safe and healthy habitats for wildlife through effective protection, restoration and management.



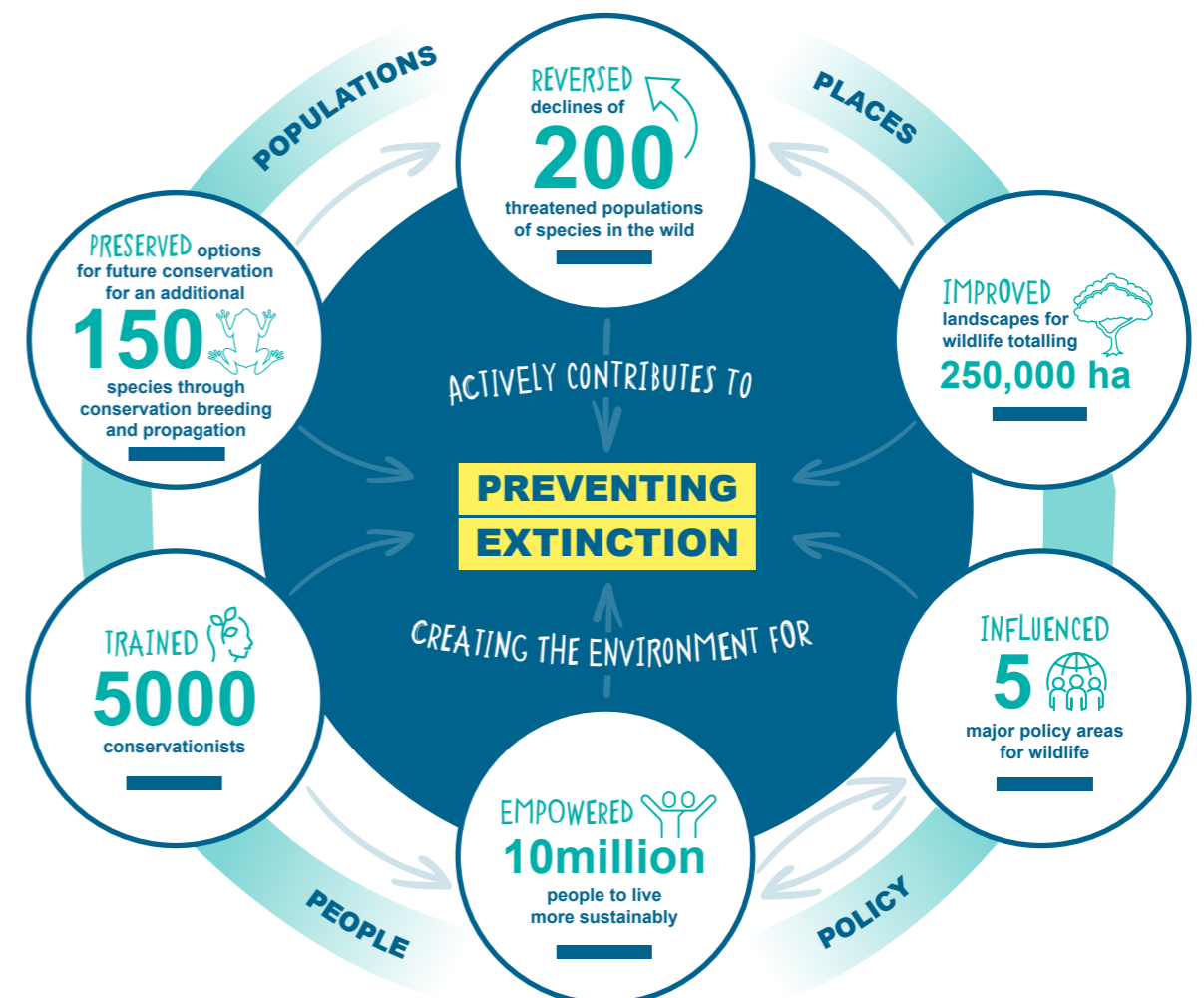
## PEOPLE

Working with people everywhere and in all areas of society to enable them to co-exist and thrive with wildlife and develop nature-friendly, sustainable lifestyles and livelihoods.



## POLICY

Influence businesses, statutory agencies and governments to incorporate effective planning and legislation to protect and enhance biodiversity, and in doing so contribute to vibrant economies.



# OUR Conservation Skills

At the heart of our conservation work is an evidence-based approach which identifies and addresses the challenges faced by our natural world. Key to this is our diverse pool of talent and expertise at the zoo and the hugely valuable collaborations that we develop with our many partners.

Combining the skills of scientists and practitioners across many different disciplines of our organisation and through our global networks accelerates our progress and provides an environment where innovation can thrive.

We build feedback and sharing of best practice in to all of our work to ensure that any progress can be quickly applied, on the ground, for greater conservation impact.

Our conservation team includes our keepers and curators, our horticulturalists and botanists, our scientists and field conservationists, our educators, our communicators, our fundraisers, our commercial and business support teams, all working together to prevent extinction.



The broad experience of this team covers a range of skills and expertise, including:

- Population management
- Habitat design and enrichment
- Innovative husbandry and plant propagation
- Behaviour and welfare research
- Veterinary care
- Reproductive physiology and population biology.
- Conservation assessment
- Surveys and monitoring
- Conservation planning
- Conservation translocations
- Conservation technology
- Sustainable livelihoods and economic development
- Community led human wildlife conflict mitigation
- Conservation education and engagement
- Community outreach
- Social research
- Behaviour change
- Policy level consultation
- Communications and marketing

We enrich and enhance this skill set by working collaboratively with our partners and colleagues from national and international zoo associations, academic and educational institutions and conservation NGOs. We also work with governments and international bodies to improve our opportunities to deliver change. We value each and every individual and organisation that engages with and contributes to our education and community led initiatives. By working together we can meet the challenges of today and those of the future.

Throughout our Conservation Masterplan we'll give examples of how this expertise is being applied in our conservation practice now and how we plan to develop these skills for the future.



# OUR Sustainable Zoo

Our wider strategy for preventing extinction must involve measures designed to reduce the global threats to biodiversity presented by climate change and over exploitation of natural resources.

Central to this strategy is demonstrating sustainability in all of the zoo's operations. We have set the following sustainability goals for our zoo site and estate for the ten year period of the plan

**CARBON NET ZERO**  
by 2030

**ZERO WASTE**  
operation by 2030

**PROCUREMENT OF DEFORESTATION FREE COMMODITIES**  
in all major supply chains

To engage our visitors and members we will establish a set of principles that will guide the redesign of our products and services to ensure they meet our sustainability criteria. By asking ourselves 'how nature would do it', we aim to develop new initiatives that will make it possible for every aspect of a zoo visit to be sustainable, and inspire visitors to adapt to more sustainable consumer behaviour beyond their visit in their everyday lives.



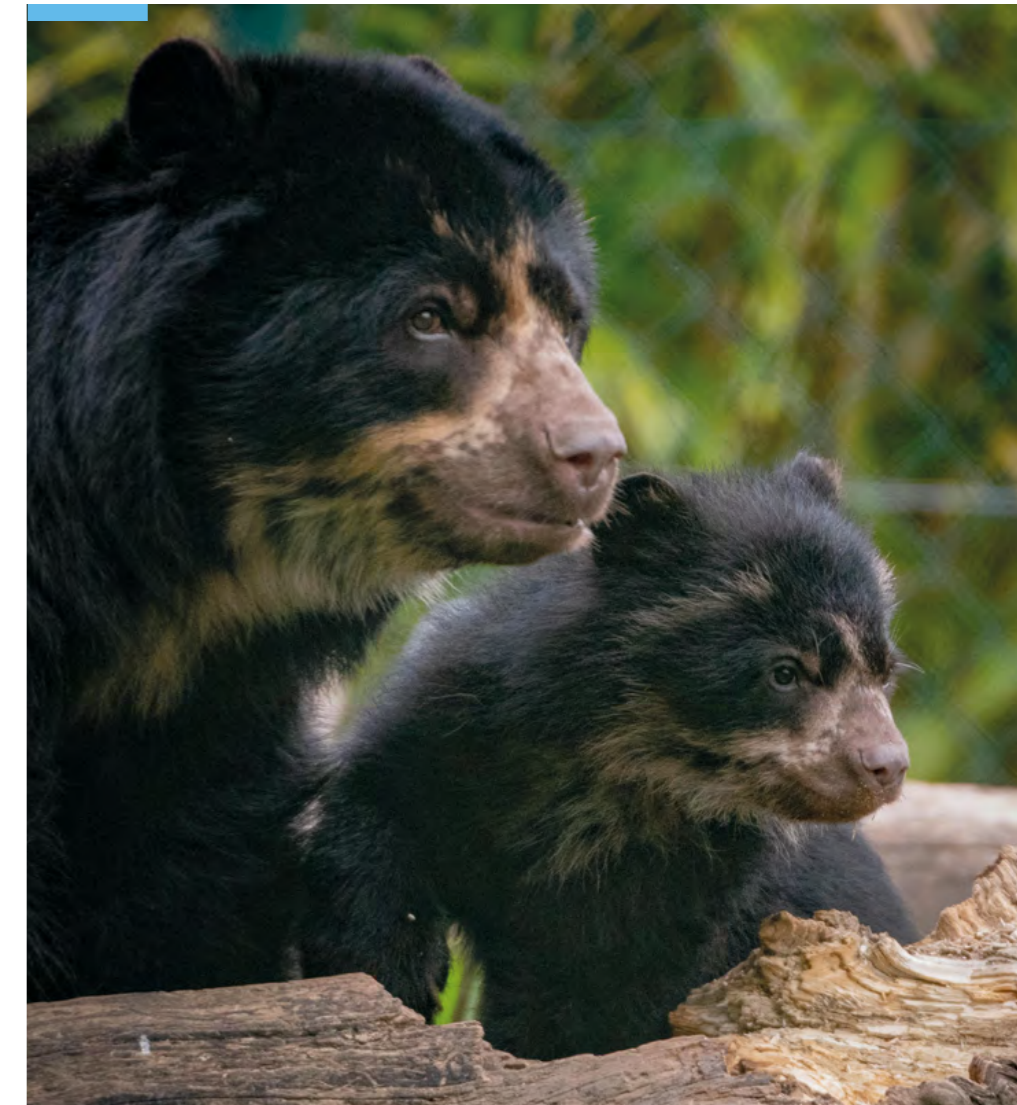


Zoos are unique amongst conservation organisations for the incredibly important and diverse animal and plant collections that they manage *ex situ*. At Chester Zoo we are the custodians of populations of around 3000 species of animals and plants. These are critically important reservoirs of genetic biodiversity for an increasing number of species.

## POPULATIONS

'NO OTHER GROUP OF INSTITUTIONS HAS THE SCIENTIFIC KNOWLEDGE AND PRACTICAL EXPERIENCE TO KEEP AND BREED THOUSANDS OF ANIMAL SPECIES, THEREBY OFFERING ENORMOUS POTENTIAL FOR CONTRIBUTING TO WILDLIFE CONSERVATION.' WAZA Conservation Strategy 2015

© Steve Metzler



This valuable biodiversity resource underpins not only our *ex situ* conservation breeding and propagation activities, but also enables us to apply our extensive skills and experience to *in situ* restoration of wild populations when necessary in the six regions where we work.

This approach improves the status of animal and plant populations, decreasing the likelihood of extinction both locally and globally, making a substantial contribution

to the Post-2020 Biodiversity Framework (the successor to the Convention on Biological Diversity).

By securing a future for a substantial number of species we will also contribute to two of the United Nations Sustainable Development Goals (SDGs), Life below water (SDG 14) and Life on Land (SDG 15).



## Working with the global conservation movement

Central to our work on populations is our relationship with the International Union for the Conservation of Nature (IUCN), the body responsible for coordinating conservation effort across the globe. We are full members and support the IUCN, and especially its Species Survival Commission (SSC) in a number of ways.

Equally vital is our close collaboration with the World Association of Zoos and Aquaria (WAZA) and the regional zoo associations, especially the European Association of Zoos and Aquaria (EAZA) with whom we play a leading role through membership of EAZA committees and conservation breeding programmes.

We provide significant financial and technical support for the role of the Chair of the SSC and for the Conservation Planning Specialist Group (CPSG) which works with the taxonomic specialist groups and the zoo community to develop effective action plans for the world's threatened species.

We lead on developing some of these plans. We currently have significant input to and/or leadership roles in a number of IUCN taxonomic specialist groups, task forces and inter-disciplinary groups and we contribute to the quadrennial IUCN World Conservation Congress through proposing and supporting motions to the Congress.

Wherever possible our conservation projects follow the 'Assess - Plan - Act'

approach advocated by the SSC through the CPSG, with a particular emphasis on providing the opportunities for turning conservation plans into action. Working with the wider conservation community we actively support and encourage conservation assessment and planning that leads to effective action on the ground.

As we move into the 2020s we will actively participate in the SSC and WAZA led 'Reverse the Red' movement which aims to strengthen strategic cooperation and action to ensure the survival of species and habitats as part of the coordinated plan to achieve the species targets of the Post-2020 Biodiversity Framework.



## TARGET 1 Preserve options for future conservation by intensively managing an additional 150 species of animals and plants (of which at least 50 will be animal species) through conservation breeding and propagation.



**Maintaining and managing individuals and populations of highly threatened species (both locally and globally) is essential for safeguarding them and preserving options for future conservation.**

Conservation focussed zoos and botanic gardens are in a unique position to achieve this. Collectively these represent our species preservation programmes, which we will increase by at least 150 species of highly important animals and plants over the next 10 years.

Species are included within this target if they fulfill the roles within our collection plan and based upon the 'IUCN SSC guidelines on the use of *ex situ* management for species conservation'; four applicable conservation roles are considered as preserving options for the future.

- a) Conservation (Ark)** – Species which are extinct (or on the verge of extinction) in the wild (at a local, regional or global level) and which would become completely extinct without *ex situ* management.
- b) Conservation (Insurance)** – Species for which *ex situ* management aims to maintain a viable population of the species to prevent predicted local, regional or global extinction and hence preserves options for the future. The *ex situ* management will normally be as part of a recommended conservation action.

- c) Conservation (Translocation)** – Species for which individuals managed *ex situ* forms part of a source population for conservation translocation (population restoration, assisted colonisation or ecological replacement).
- d) Conservation (Temporary support)** – Species managed temporarily *ex situ* with the intent of protecting individuals from predicted imminent threats or high mortality (e.g. catastrophes or head-starting).

**Criteria of importance in selecting appropriate species include (but are not limited to):**

- Native to one of the six major geographic regions in which we work.
- Species totally dependent upon conservation out of their normal habitat ('*ex situ*') either regionally or globally (often as evidenced by the IUCN Red List category, Extinct in the Wild).
- Species highly threatened with extinction (often as evidenced by the IUCN Red List categories; Critically Endangered, Endangered or Vulnerable).
- Species highly susceptible to rapid decline by virtue of their localised and/or highly fragmented distributions.

Our species preservation model utilises our extensive expertise and resources, combined with our close cooperative links with other global zoos, botanic gardens and the EAZA.

## Measurement

Within our collections we currently hold 742 species that fulfil the criteria by having one of the four primary roles outlined above. We will increase this number of species for which we play significant roles in *ex situ* population management as measured against the species collection plan by 150 (including at least 50 animals).

Each one will be intensively managed through a combination of appropriate actions including; conservation

breeding and propagation activities; coordinating the population; writing best practice husbandry guidelines; carrying out research essential for the health or sustainability of the *ex situ* population; and/or holding a significant proportion of the *ex situ* population.

Chester Zoo's animal and plant collection plan sets targets for the acquisition of all species along with primary and secondary roles. This allows for the tracking of progress towards achieving the goal of an additional 150 species during the next decade.



## CASE STUDIES

### Eastern Black Rhinoceros

Our scientists and animal care team led a 5 year research project, which culminated in the establishment of a conservation physiology toolkit and the birth of 10 rhino calves within 10 years.



Our work in zoos resulted in the founding of a lab in Lewa Wildlife Conservancy, Kenya to develop a similar approach for wild populations, work that continues to develop with the support of partners.

We are committed to finding safe places for rhinos through community led initiatives and the use of scientific research to establish how best to reintroduce animals successfully to the wild.

### Asian Songbirds

Overexploitation for the wildlife trade is one of the main drivers for species loss, including a demand for cage birds in Indonesia that has led to the Asian songbird crisis; a very real, and imminent, extinction threat to numerous species. Working in close partnership with a variety of organisations, we are already addressing the impact of the songbird trade and finding solutions.

Activities include on-going commitments to specialist conservation breeding facilities that manage assurance populations of some of Indonesia's most threatened species. These include the critically endangered Javan green magpie (*Cissa thalassina*) whose population we have rescued through conservation breeding at Chester and with our *in situ* partners at the Cikananga Wildlife Centre in West Java.

Following the first breeding at Cikananga in 2012, in 2015 six pairs of Javan green magpies were imported from Indonesia to Chester Zoo, to establish an assurance population. Skilled husbandry informed by behavioural research has resulted in a number of successful breeding attempts, increasing the zoo population to over 90 at seven institutions.

Over the coming years we will develop a comprehensive programme of work designed to reverse threats and secure populations of a number of Asian songbird species.



### Bermuda snails

The greater Bermuda snail (*Poecilozonites circumfirmatus*) was considered extinct until a tiny population was recently rediscovered in Bermuda. A rapid response initiative to prevent extinction was mobilised in 2016 by bringing 60 individuals to Chester Zoo for conservation breeding.

Two years later conservation breeding success enabled the first releases to new locations on the island, and continued conservation breeding will provide further snails for other planned release sites.

The project has also developed innovative monitoring, which will continue until the wild populations become stable.

The programme has provided a reference model of rapid response in invertebrate species conservation, with applied research helping to provide evidenced guidelines in regard to husbandry, health screening and best practise in marking and monitoring of post release populations. We will employ this model for other invertebrate populations as part of our work towards target 1 over the next ten years.



### Montseny Brook Newt

The Montseny Brook newt (*Calotriton arnoldi*) is a critically endangered amphibian endemic to the Montseny National Park in Catalonia, Spain and *ex situ* management is required to save it from extinction.

Chester Zoo joined the conservation breeding programme in 2017, using biosecure facilities specifically designed from modified shipping containers.

We developed a multidisciplinary approach to address the key issues in the *ex situ* programme, which included low survival rate from eggs in captivity and slow growth towards sexual maturity. We have been able to establish a long-term breeding programme and an EAZA *ex-situ* Programme (EEP) for the species

Newts bred in our facilities are now used for reintroductions into areas of the Montseny National Park where habitat has been restored which will help to recover the population.

This project is providing a reference model of applied research answering key conservation questions. Experience has been disseminated on best practice husbandry, health screening, individual marking and monitoring of post release populations. We will employ this model for other amphibian projects.





## TARGET 2 Halt or reverse the decline of at least 200 highly threatened populations of plants and animals.

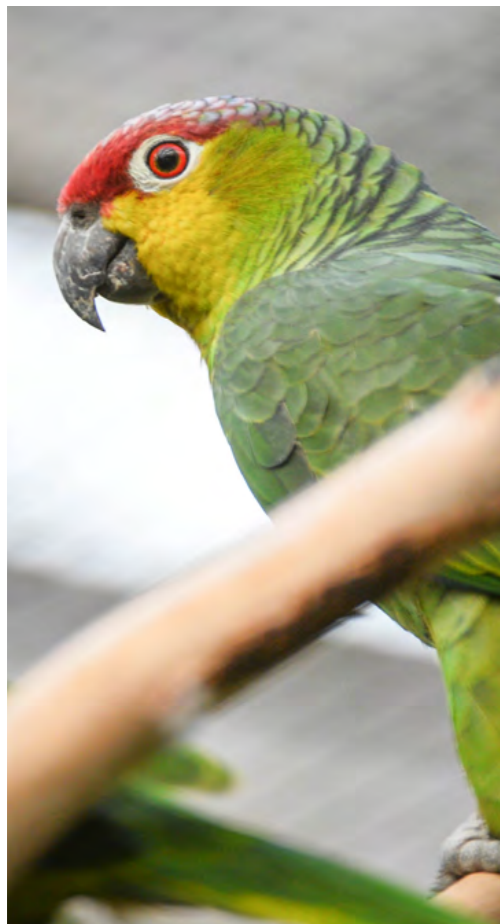
The World Wildlife Fund's (WWF) Living Planet Index reports that vertebrate populations overall have declined by 68% since 1970. These extensive declines, mirrored or in many cases even worse in invertebrates and plant groups, are the forerunner of a mass extinction which will surely follow if we do nothing to reverse them.

We will expand upon our success in reversing the fortunes of a number of wild populations of animals and plants through a combination of population management, habitat enhancement and conservation translocation, facilitated by research and stakeholder engagement. We will scale this up to at least 200 populations in the next ten years. This work is closely aligned with our training and empowerment targets (4 and 5) covered in the following pages of this plan.

Collectively this target comprises our **population restoration projects**, halting or reversing declines in existing populations and, where appropriate, using reintroduction to establish new populations. These projects will cover a wide range of different species of animals and plants, and in some cases we will work with more than one discrete population of the same species.

Criteria used for population selection include (but are not limited to):

- Native to one of the six major geographic regions in which we work.
- Chester Zoo has a particular contribution to make to reverse the fortunes of these populations through our specialist skills. In many cases this will include expertise associated with particular taxonomic groups, sometimes specifically requested by government or conservation agencies.
- Species or populations that are highly threatened with extinction (often as evidenced by the IUCN red list categories; Critically Endangered, Endangered or Vulnerable), either through global or local assessment.
- Keystone species of importance to particular landscapes or habitats.
- Linked to and benefit from our work on places, people and policy via our landscape conservation programmes and/or our campaigns and policy initiatives



### Measurement

For each population we will establish a baseline using current best estimates of population size or trend, or based on range (area of occupancy and extent of occurrence).

Through repeat measures we will monitor population change and aim to see the population trend increasing or stabilising during the project and beyond. Timescales are acknowledged as short in a ten year plan so proxy measures such as range expansion or threat reduction may be used for some species.

Over the last ten years we have moved away from providing only financial support for conservation outreach projects to working in closer collaboration with our partners and employing our

technical skills to co-design and lead projects. This trajectory will continue.

For each population restoration project, Chester Zoo will have a significant role in contributing to actions that result in an evidenced improvement for these populations in the wild, such as assessing and planning, validating marking techniques, ecological studies, provision of individuals for release and habitat improvement work.

The overarching aim for each population on which we work is to improve the status of the population and thus decrease its chances of extinction. It is important to recognise that this is not a one-off but a long-term commitment that will usually require continued work to maintain and ensure that the impact on population change is permanent.

### CASE STUDIES

#### UK carnivorous plants

We support the North West Rare Plant Initiative which targets dozens of threatened plants from across the North West of Britain.

A particular focus is on lowland mosslands which are being restored by partners in the Wildlife Trusts, but which have lost many of their native carnivorous plant species.

The great sundew (*Drosera anglica*), has been successfully reintroduced to local mosslands, after an absence of over 150 years; populations of plants quadrupled since reintroduction. 60 Lesser bladderwort (*Utricularia minor*) plants translocated into pools in the Manchester mosslands have multiplied to approximately 200,000 individuals in just a few years.

We will build on this success to contribute to more local plant restorations to help restore native flora in our region.





### Asian Wild Cattle and Babirusa

Chester Zoo is a core supporter of the Action Indonesia Global Species Management Plans (GSMPs) for lowland anoa (*Bubalus depressicornis*), Banteng (*Bos javanicus*) and Babirusa (*Babyrousa spp.*), which use the 'One Plan' Approach to combine the skills, resources and expertise of the zoo community and *in situ* conservationists.

Building on our own success with breeding these species, we delivered training to Indonesian zoos and forestry office staff which built the capacity for transfers and breeding to occur, helping to achieve the GSMPs' goals of healthy *ex situ* populations.

Where recommended by genetics, and with adequate monitoring and protection in place, these skills will be used to translocate animals between protected areas in Indonesia to increase gene flow.

We will now support our partner's work in the field to secure protected areas for the release and reestablishment of individuals into the wild from these *ex situ* assurance populations.



### Giant Pangolin

The giant pangolin (*Manis gigantea*) is the largest of the pangolins, endangered by the illegal trade in scales and meat and by habitat loss. It is also one of the least known of all Africa's mammals.

We have used conservation technology such as camera traps and GPS based biotags to develop giant pangolin specific survey and monitoring methods at our study sites in Uganda, Nigeria and Gabon, and these have recorded numerous new behaviours.

This groundbreaking project has used these data to identify key habitat requirements and priority populations.

Together these are contributing to the development of long-term monitoring programs and regional conservation action plans that we will use to protect this remarkable species from extinction.



### Mexican Freshwater Fish

The Mexico Fish Ark project is a collaboration between Chester Zoo and Universidad Michocana de San Nicolás de Hidalgo in Morelia, central Mexico. It aims to prevent the extinction of about 40 species of fish that are endemic to Mexico and under severe threat from deforestation, overfishing and invasive species.

The project runs a large 'Aqualab' together with outdoor ponds, providing a naturalistic environment to better prepare species for release in order to bolster dwindling populations in the wild.

As part of this project we have already successfully reversed the extinction in the wild of the Tequila splitfin (*Zoogeneticus tequila*) through reintroduction from zoo populations to suitable sites within its historic range in the Teuchitlán River basin of Jalisco, Mexico.

The Tequila splitfin has become a flagship species for the engagement and education of local communities in the protection of the wider Teuchitlán River system.

We will now use this model to inform the development of new conservation programs for other endemic Mexican freshwater fish species and threatened endemic salamanders.



With habitat destruction and degradation the primary cause of biodiversity loss on the planet, securing space where wildlife can thrive is central to preventing extinction.

## PLACES FOR WILDLIFE

‘AS ZOOLOGICAL PROFESSIONALS WHO CARE FOR ANIMALS AS OUR CORE FUNCTION, IT IS CRITICAL THAT WE GIVE HIGHEST PRIORITY TO INCREASING OUR COMMITMENT TO THE CONSERVATION OF WILD POPULATIONS’

WAZA Conservation Strategy 2015



This is further exacerbated by; i) climate change, which requires habitats for wildlife to be connected across a landscape scale to enhance climate resilience and allow species to adapt and recover; and ii) poverty, which threatens further degradation if improving livelihoods is not a central part of any conservation strategy.

The Post-2020 Biodiversity Framework (PBF) will target at least 30% of land and sea to be secured via protected areas and other effective area-based conservation strategies, and promote greater landscape connectivity overall. Protection of a few pristine sites for wildlife is not an effective strategy on its own and we must use innovation and ingenuity to work with people across whole landscapes to enable wildlife to prosper alongside human populations. This will also help to meet the PBF targets around sustainable livelihoods

and reducing human-wildlife conflict and in doing so contribute to (SDG 1) No poverty, (SDG 2) Zero hunger and (SDG 8) Decent work and economic growth.

Our work on promoting sustainable livelihoods and human-wildlife coexistence as part of our holistic approach to field conservation provides us with a solid foundation from which to provide safe spaces for wildlife across a landscape scale in a number of the places where we work, both at home and overseas, thus also contributing to (SDG 14) Life below water and (SDG 15) Life on land.





**TARGET 3** Improve a total of 250,000ha of landscape for wildlife in at least six locations around the world.

Over the last two decades we have pioneered community-based conservation initiatives in a number of countries, tackling human wildlife conflict challenges and promoting sustainable livelihoods to reduce threats to wildlife. This work will be scaled up to span landscapes within each of the regions in which we work.

Our conservation landscape programmes will be designed to address multiple factors threatening species and their habitats within our six major regions. The landscapes may be statutorily protected areas or mosaic landscapes managed for people and wildlife.

Our conservation landscapes will showcase how people and wildlife can thrive together in areas that are managed by their local communities. By supporting sustainable practices and working with local partners to establish lasting agreements with stakeholders we aim to secure the long-term future of those landscapes for people and wildlife.

All the landscapes will fall within our six major regional programmes and are represented in the zoo by our zones as laid out in the Zoo's Strategic Development Plan.

In addition, each conservation landscape will fulfil the following criteria:

- Be part of wider holistic conservation activities within Chester Zoo.
- Include target species that are highly threatened, some of which are represented in the zoo's collection.
- Provide opportunities for us to apply our expertise and experience, in partnership with others, to achieve measurable positive change by 2030 evidenced against baselines.

Each programme will have a habitat management, reconnection and/or restoration component to contribute towards achieving target 3. Although protection of the landscape will be an important component, ensuring that protection is both effective and sustainable involves a close working relationship with the people who live alongside the wildlife there. We will support local partners in practical community engagement and finding solutions to human-wildlife conflict.

Delivery of objectives is a shared effort, a combination of direct intervention and partnership support (both technical and financial) to achieve conservation impact.

**Measurement**

Chester Zoo will have a significant role (financially, technically, academically, or as a Co-ordinator) contributing to action, or activities that lead to action, such that by 2030 at least 250,000 hectares of landscapes are sustainably managed to provide evidenced net gains for biodiversity.

Evidence of net gains (and therefore improvement) will include some or all of the following:

- Measurable reduction in threats,
- Increase in quality/quantity of habitat,
- Population increases in key indicator species
- Range expansion/recolonization of species that have become locally scarce or extinct.

Evidence of improvement in lasting protection measures will also be required, such as statutory designations and/or legally binding local or regional land-use and management agreements. Projects will also have human development indicators but ultimately action needs to show evidenced improvement in biodiversity indicators.

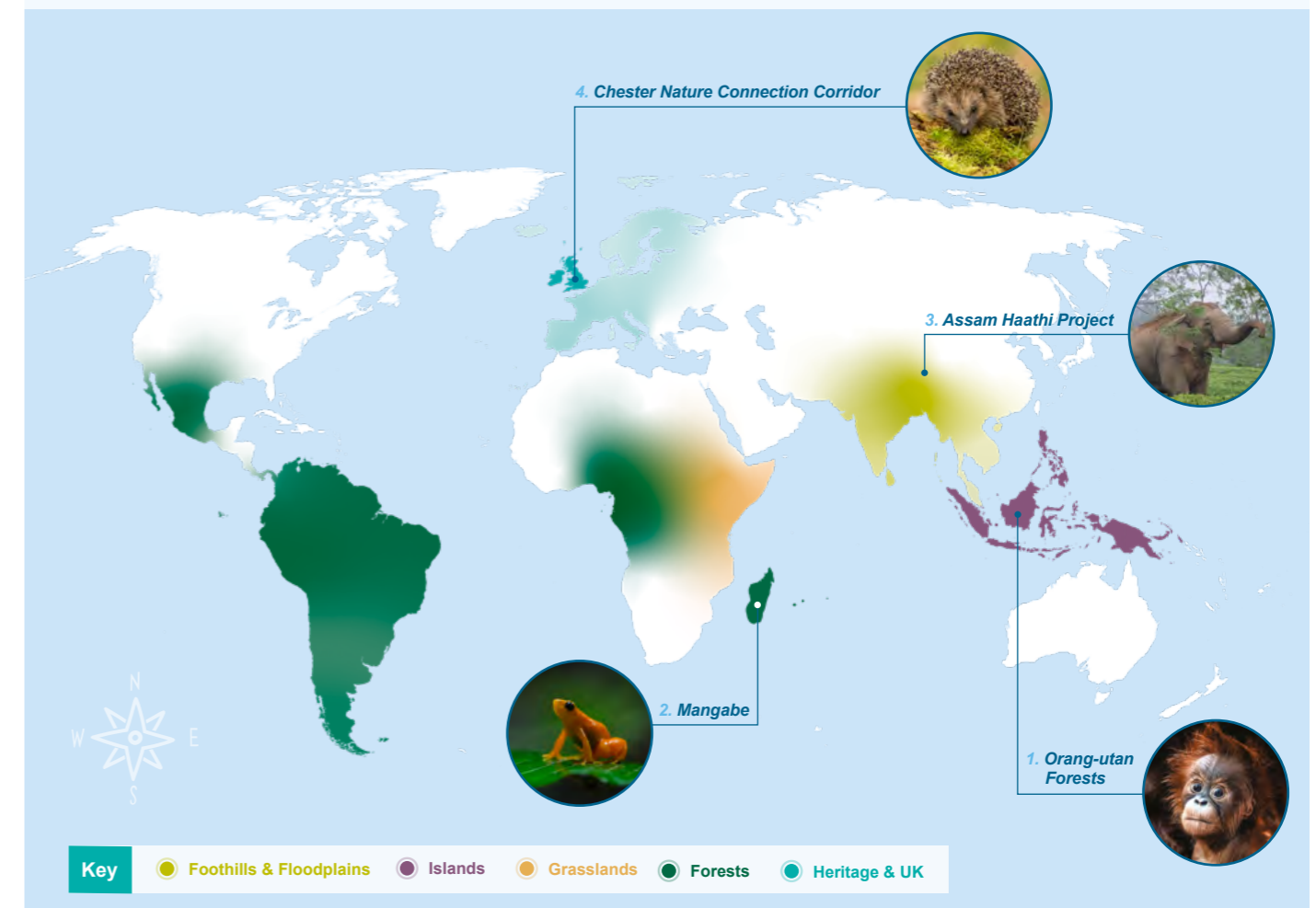


**OUR Conservation Landscape Programmes**

Over the ten year timescale of this plan we will develop a total of at least six conservation landscape programmes, one per region and each one linked with one of our biogeographical zones in the zoo. The first of these will be based on current, well-established projects that are outlined below and featured in the case studies presented in the following pages.



- 1. South East Asian Islands:**  
*Orang-utan Forests:* Tropical rainforest restoration in Borneo with Hutan and the Borneo Nature Foundation.
- 2. Madagascan Forests:**  
*Mangabe:* Re-connecting forest patches in Mangabe and other areas, working with long-term partner Madagasikara Voakajy.
- 3. Mainland Asia (Foothills & Floodplains):**  
*Assam Haathi Project:* Resolving human-elephant conflict and reconnecting forest landscapes in Assam, India with our partners in the Wildlife Trust of India.
- 4. UK Conservation:**  
*Chester Nature Connection Corridor:* Connecting up wildlife landscapes and people in our region, with the Chester Zoo nature reserve and estate at its centre and engagement with a wide range of local community partners in rewilding and creating habitats for wildlife.



A second wave of these conservation landscape programmes will be determined based on the outcome of work currently underway in new areas or with new partners in areas with a significant landscape component.

## CASE STUDIES

### South East Asian Islands: Orang-utan forests

In the Malaysian state of Sabah, the Kinabatangan floodplain is home to almost 1000 Bornean orang-utans (*Pongo pygmaeus*) and many other threatened endemic mammals and birds. The area is under intense pressure due to the habitat fragmentation caused by deforestation for agriculture, including oil palm.



Working alongside conservation organisation HUTAN our approach has combined scientific research with education and protection and management of wildlife habitat. Local communities are the implementers of project activities, with the ultimate aim of providing sustainable solutions for the long term survival of orang-utans and other species.

A scientific, evidence-based rationale for our sustainable palm oil work, working with HUTAN and other NGOs, has helped us to establish a movement for the sustainable industry and sustainable practices on the ground in Sabah.

We have helped connect fragmented habitat through the erection of orang-utan bridges and work to regenerate rainforest at a number of sites along the Kinabatangan River. Through our partners working with plantation owners, local communities and the Sabah Wildlife Department in the Kinabatangan forests we have been able to help establish critical forest corridors.

The next phase of the landscape work will restore more forest corridors over a wider landscape and provide future monitoring for management of wildlife in forest-agricultural mosaic landscapes across Borneo and further afield.

### Madagascan Forests: Mangabe

Through staff exchanges, expeditions and capacity building we are building an inventory of the biodiversity of this important but previously neglected forest area, home to rare lemurs such as indri and aye aye and a host of endemic birds and reptiles.



Our conservation activity includes golden mantella frog monitoring through new techniques which have been developed in the zoo and are now implemented in the wild as standard monitoring technique for the species, informing pond management strategies.

We are also working with local communities to establish a community-led, sustainable management plan for Mangabe, enabling them to patrol the protected area and prevent illegal gold mining and logging.

We will step up our support for community initiatives and help communities to secure legal management rights, as well as participating in the collection of data on the distribution and status of various threatened species populations. We will extend this model of community development to other wildlife-rich areas in Madagascar as opportunities allow.



### Mainland Asia (Foothills & Floodplains): The Assam Haathi Project

We work in partnership with the Wildlife Trust of India in Manas Tiger Reserve (MTR) and Manas National Park (MNP) in north-western Assam in India. The diverse landscape includes semi evergreen forests and is significant for the conservation of a variety of threatened species including the population of perhaps over a thousand wild Asian elephant (*Elephas maximus*).



During the last two decades, an increasing human population in and around MTR has resulted in natural wild habitats being converted into human settlements and farmland. This has resulted in conflict between elephants and local people.

Our 'Assam Haathi Project' has focused on researching and implementing interventions to mitigate this conflict and restore habitat within and around MNP and in other parts of Assam.

The Project will now apply our learning to scale up these interventions in order to mitigate human-elephant conflict across the whole Manas landscape.

We will also support the creation of new protected areas to ensure that elephants can move safely between existing national parks and neighbouring community forest areas.

### UK Conservation: Chester Zoo Nature Connection Corridor

Our Chester Zoo Nature Reserve was established in 2013 and now covers 5 ha of restored wetland, wildflower meadow and replanted woodland. It has been used as a training ground for the Chester Zoo 'Wildlife Connections Campaign' which has already shown great success in providing skills to local communities in and around Chester, enabling the creation of wildlife habitats in a range of settings across the region.



We will adopt more sustainable practices across the zoo estate, extend the area of land managed directly for biodiversity and connect it with priority wildlife habitats within the surrounding landscapes between the City of Chester and Ellesmere Port, working with local communities to help restore habitats.

The resulting 'Chester Zoo Nature Connection Corridor' will provide a 15 km long wildlife corridor running adjacent to local waterways. We aim to build on this to create and connect habitats such as pond, reed bed, wildflower

meadow, and hedgerow to benefit a wide variety of native species such as the great crested newt (*Triturus cristatus*) and the hedgehog (*Erinaceus europaeus*).

Our collaboration with a broad network of local partners will continue to contribute to and complement other local conservation initiatives to facilitate a regional biodiversity conservation approach in the north-west of England and north Wales. Our close collaboration with the local biodiversity record centre, rECOrd, will continue to inform land and species management strategies.

# PEOPLE

‘BY HELPING TO CREATE A CULTURE OF CONSERVATION IN SOCIETY, ZOOS AND AQUARIUMS ARE AN INTEGRAL PART OF THE PROCESS TO GENERATE THE ATTITUDE AND THE WILL NEEDED TO SAVE SPECIES AND MAINTAIN HEALTHY ECOSYSTEMS’ WAZA Conservation Strategy 2015

Almost all threats to wildlife are linked to human behaviours. Human population increases and lifestyle changes have put ever increasing pressures on wildlife species and habitats. As a charity dedicated to conservation and education and an organisation with a large public reach and profile, we are able to work with visitors, communities, businesses and policy makers to inform, inspire and empower a change to more pro-conservation behaviours.



We will create opportunities for everyone to get involved in conservation and have a voice, actively seeking to engage those who have previously been under-represented. We will use our social science, pedagogical, communication and social marketing expertise to ensure our interventions achieve their full potential.

towards sustainable consumption and lifestyles and to (SDG 4) Quality education, (SDG 11) Sustainable cities and communities, (SDG 12) Responsible consumption and production and (SDG 13) Climate Action.



This will contribute to the post-2020 biodiversity framework target of people everywhere taking measurable steps



**TARGET 4** Enable 5,000 conservationists to deliver positive change for wildlife through our training programmes.

There has never been a more important time to ensure we have trained professional conservationists out in the world, preventing extinction. Our challenges may be growing, but so is the number of resilient, well-trained and effective conservationists. Continuing our capacity building traditions is an essential part of achieving the vision of our Conservation Masterplan.

We already offer professional and practical training in a number of areas, delivered by passionate and experienced Chester Zoo staff. We will now multiply our conservation impact by bringing this together into a new **Conservation Training Academy** to support the Conservation Masterplan. We will offer targeted training to our partners and supporters from a wide cross section of society, including zoo, aquarium and botanical garden professionals, field conservationists, researchers, teachers and educationalists, planners and policy makers and many others.

**Our training portfolio will build on existing provision and develop offers in three broad areas:**

- On-the-job placement training;
- Higher education (including our PhD scholars programme); and
- Continuous Professional Development training (CPD) in our key areas of expertise.

We will focus on our expertise in areas that link with our other Masterplan targets but which are poorly represented in the conservation training sector as a whole, such as wildlife endocrinology, conservation social science and conservation education. Where appropriate we will seek professional accreditation through our partnerships with zoo associations, universities and other bodies. We will develop and mentor trainees by providing clear pathways and long term support through an alumni network.

**Measurement**

Measurement will be through a set of Key Performance Indicators (KPIs) that will assess impact of training as well as numbers trained. This will be done via a trainee alumni programme that will track the use made of training and the contribution it makes to positive conservation outcomes.

We are planning to introduce a Training Effectiveness Index to track this which will include measures of knowledge gains and upskilling, skills audits and tracking of impact of training via destination tracking and an alumni network.



**CASE STUDIES**

**Zoo Trainee Programme**

Since the 1980s we have run a competitive and rigorous keeper training programme which has been so successful that you will see many of our ex-trainees in zoos across the UK and Europe all the way to director level.

The programme will develop over the next 10 years to encompass a wider range of skills through a new formalised workshop programme. These trainees will be provided with a holistic training programme, which encompasses the wide diversity of skills and competencies' required in the modern zoo.

Trainees will work with our collection and science teams and will have a diverse and well-rounded experience before entering the industry. Our trainees will leave the zoo ready to start their careers in conservation.

## Conservation Scholars and Fellows

Over the past decade we have welcomed 49 trainees to our Conservation Scholars and Fellows Programme, in collaboration with a number of universities. The research students and postdocs whom we support through this programme are trained to become powerful conservation trail-blazers who understand the threats faced by wildlife and how to deliver evidence to mitigate and overcome these challenges.



They gain the experience of working on applied, conservation-oriented projects by actively engaging with our animal collection, our conservation education initiatives and our field projects around the globe. They are mentored and trained by our internationally recognised experts and deliver evidence-based knowledge that can be used to influence and implement conservation action.

Our Scholars and Fellows range from, for example, mechanical engineers working on antiviral materials to reduce viral transmission in parakeets, to zoologists assessing reintroduction fitness of amphibians for release, to social scientists investigating drivers of Java's songbird trade to enable effective conservation campaigns to reduce demand.

We will develop and grow our Conservation Scholars and Fellows programme to provide a major part of the scientific underpinning that will support the delivery of the Conservation Masterplan.

## Professional Courses

We have a long history of disseminating our specialisms in both informal and formal settings to enable practicing conservationists and other zoo professionals to learn new skills, share best practice and establish professional networks.

One example of how we work in partnership to deliver training is the Orang-utan Veterinary Advisory Group (OVAG), with whom we have worked to provide professional training to specialists in primate health in SE Asia and beyond for over 10 years. Today OVAG brings together more than 30 organisations including rehabilitation centres, conservation NGOs, universities, government bodies, and zoos, coordinated by a local committee of vets and ecologists. As a result of the sharing of best practice through the training programme, OVAG now provides recommendations on Ebola, tuberculosis, hepatitis and most recently COVID-19 and these have been acted on by conservation projects and governments in the region.

With the launch of our new Conservation Training Academy we will provide a set of continuous professional development opportunities for both early career conservationists and those wishing to develop a wider range of skills to use in their current roles. Using our

specialists at the zoo we will provide a range of short courses in both technical, vocational and transferable skillsets, delivered using virtual platforms and in the field as well as in the zoo.

Our training is global, and with the range of courses developed, we aim to build an alumni network of conservationists across a multitude of sectors, which are able to support our mission of Preventing Extinction.



## TARGET 5 Empower 10 million people to live more sustainably and for the benefit of wildlife.

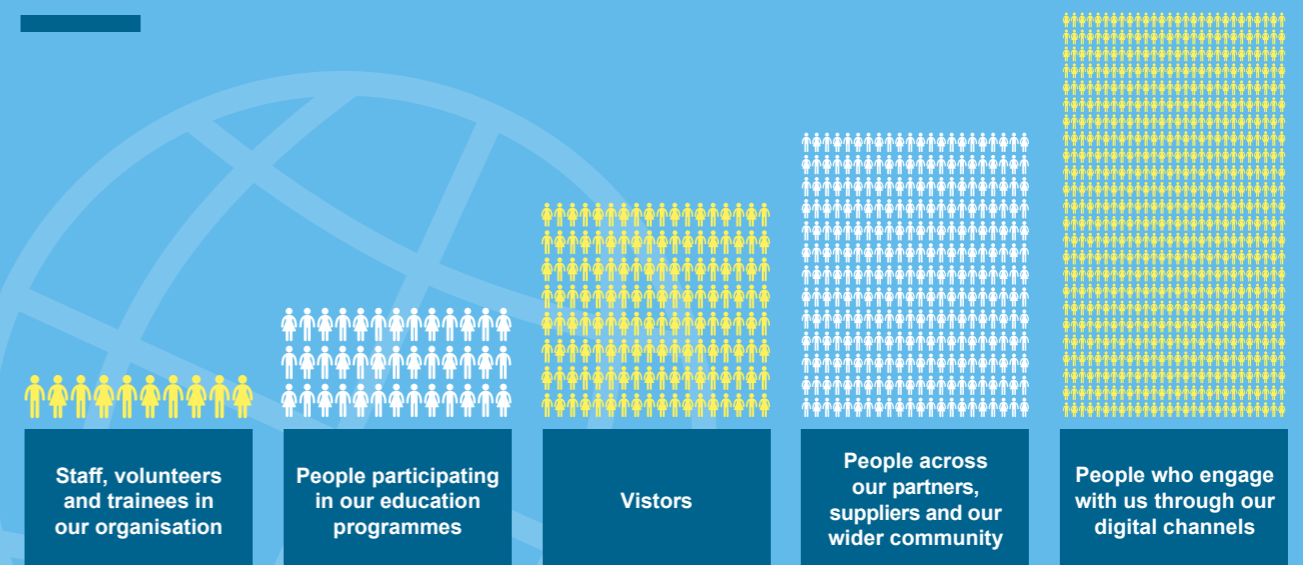
To achieve the transformational change required to tackle the extinction crisis we need to engage with the widest possible cross section of the public. As the nation's most visited zoo, with extensive reach through our public profile, marketing campaigns and educational outreach, we have a unique opportunity to do this at the scale required. By working with our local partners to support communities living alongside wildlife in the field we are also able to contribute to empowering sustainable lifestyles in a variety of different settings and for increasing numbers of people worldwide.

By empowerment we mean enhancing the capacity of an individual or group to make choices and transform those choices into desired actions and outcomes.

Empowerment encompasses the wide range of work we do to encourage conservation behaviours. Our conservation education and interpretation, delivered both in the zoo and through our outreach programmes, lay the foundations for people to live more sustainably by increasing their understanding of conservation, connecting them with nature and acting on their sense of agency and self-efficacy.

Our behaviour change campaigns deliver conservation action within specific communities and are underpinned by behavioural theory. All of our people focused interventions are carefully designed to generate the outcomes that science tells us contribute to empowering people to live more sustainably.

## OUR levels of influence



## Measurement

We expect many millions of people to visit and interact with us over the lifetime of this plan, but for at least 10 million of these we expect to be able to evidence measurable change towards empowerment for sustainability. Using

a Theory of Change approach and established behaviour change theories, we have identified a suite of outcomes that contribute to this change. Using robust theory and methods, our conservation social scientists will evaluate the extent to which our different interventions achieve these outcomes. Where possible we will also

directly monitor specific behaviour change outcomes, such as habitat created or sustainable purchasing choices made. We are developing a consistent framework for measuring all of these outcomes and the contribution they make to empowering people and our ultimate goal of preventing extinction.

## CASE STUDIES

### Conservation Curriculum

Since 2017, we've been working with Ignite Teaching School Alliance (Ignite TSA) to enable whole schools to build their curriculum around conservation and take action for wildlife. By bringing together our conservation education expertise with our partners' education sector knowledge we have provided a year-round programme of professional development for teachers and school leaders.

Each participating school chose a Chester Zoo conservation campaign to focus on. Then, drawing on the professional development programme, they built a curriculum covering the full range of school subjects for their school around their chosen issue. Teaching of the curriculum was supported by Chester Zoo staff and resources either at the zoo or in school.

Over 80 schools have taken part so far, engaging school leadership teams, teaching staff, thousands of pupils across multiple year groups and their wider communities of families, businesses and other organisations.

Evaluation has demonstrated the impact on teachers' perception of the curriculum, with participants reporting more confidence in developing the curriculum around a particular theme. Teachers also reported an increased connection to nature and, most meaningfully, increased confidence in taking action to protect endangered species themselves.

Pupils also demonstrated new knowledge about conservation and increased connection to nature. Together, schools took action for wildlife, including changing the way playgrounds are managed to create better habitat, lobbying politicians and/or businesses to act more sustainably, changing buying habits and campaigning in their communities.

We will build on this model to extend its reach to schools across our wider region and beyond.



## Community Engagement with Overseas Field Partners

The skills of our team delivering engagement and behaviour change activities in the zoo can be vital to addressing conservation challenges in the field. Working with often rural communities living at the interface with wildlife means we encounter communities who come into direct conflict with wildlife.



These communities can become part of a co-existence solution. We engage and understand attitudes and behaviours, and support communities to develop and implement strategies that mitigate the threats.

In Ecuador, we have converted our understanding of the relationship between people and parrots to engage communities directly in nest protection.

In Kenya, Mauritius, Malaysia and Brazil we have worked closely with our partners' community and education teams, supporting on-going field projects, translating strategies into practical activities, helping to build capacity. We provide training in writing learning objectives, delivering interactive activities and support to evaluate intervention success.

Human behaviours are socially or economically linked and in Bolivia, we work with rural communities to develop alternative livelihoods through bee-keeping, which is helping reduce conflict with Andean Bears. Similarly, in Assam we work with communities to build electric fencing, provide effective surveillance and develop alternative livelihoods to mitigate crop raiding by elephants.

Here in the UK, our Wildlife Connections campaign is successfully empowering local communities to improve their local areas for wildlife.

Community engagement and behaviour change will underpin our conservation landscape and population restoration work to ensure an integrated approach to preventing extinction.

## Sustainable Palm Oil campaign

Our Sustainable Palm Oil Challenge aims to increase demand for sustainable palm oil in order to prevent habitat destruction, by changing consumer behaviour in the UK.



Collaboration is the key to this project, working with national and international governments, zoos, NGOs, the Round Table on Sustainable Palm Oil (RSPO), communities, manufacturers, retailers, food service providers and the palm oil industry. A collaboration between our own field programmes, marketing and learning teams established a public programme that would communicate this complex conservation issue.

We delivered an innovative behaviour change programme 'Sustainable Palm Oil Cities'.

More than 50 organisations in the food service industry changed their supply chains, and became Sustainable Palm Oil Champions. We supported their journey by

providing resources, advice, and recognition of their achievements and in March 2019, Chester became the first Sustainable Palm Oil City in the world.

The UK government's aim to ensure that 100% of palm oil supplied to the UK is certified sustainable is now more attainable. Cities and towns nationwide are working to deliver the programme in their own area. The success of the project is testament to the power of people and the implementation of behaviour change theory.

We will take the learning from this project to future campaigns covering sustainable procurement and the promotion of deforestation-free commodities.

As the most visited zoo in the UK and through our many members and supporters worldwide we have the potential to provide a collective voice for change and to create a better world for wildlife through influencing policy.

# POLICY



The Dasgupta Review of the Economics of Biodiversity (2021) has made the compelling case for natural capital and accounting to be brought into the way in which businesses, institutions and nations measure wealth and determine policy.

We aim to influence businesses, local and national governments and international bodies to incorporate effective planning and legislation that will protect and enhance biodiversity. In doing so, we intend to make a contribution to the Post-2020 Biodiversity Framework targets, in integrating biodiversity values in national and local planning and reforming economic sectors towards sustainable practices. This will, in turn support (SDG 11) Sustainable cities and communities, (SDG 12) Responsible consumption and

production, (SDG 13) Climate action and (SDG 17) Partnerships for the goals. Our work with business and policy makers will connect to our work with our 'people' targets and will relate to our expertise and conservation approach. We'll identify specific policy issues with the potential to deliver greatest conservation impact. We'll involve a range of politicians, policy makers and influencers, and will always work collaboratively with industry, zoo associations and other conservation NGOs.



'ZOOS AND AQUARIUMS ARE PART OF A LARGER SOCIETY WHERE THEIR INFLUENCE CAN BE USED TO CREATE A CULTURE OF CONSERVATION.'

WAZA Conservation Strategy 2015



## TARGET 6 Influence positive change in policy for wildlife in five major thematic areas.

Our policy work will focus on five key areas where we are able to use a combination of our expertise, evidence base and collective voice to influence change. Broadly these are expected to cover:

1. Deforestation free commodities (sustainable palm oil, soy, beef and others)
2. Conservation education (including curriculum)
3. UK wildlife (including legislation, local and regional plans)
4. Sustainable tourism
5. International Conservation (including Wildlife trade, global treaties such as CBD)

Work to influence policy is iterative and highly collaborative. We intend to use a variety of approaches, both direct and indirect, to influence stated policy directives, legislative change and action at the regional, national and international level. Examples include:

- Sponsoring motions to the World Conservation Congress to establish policy for the IUCN.
- Working with our industry associations (e.g. BIAZA, EAZA, WAZA, ALVA) on sector-wide campaigns.
- Working with business and industry bodies to affect change towards more sustainable practices (e.g. Round Table on Sustainable Palm Oil).
- Sharing evidence-based publications with decision makers.
- Providing advice and evidence to Government consultation exercises and parliamentary committees.
- Lobbying Ministers, Members of Parliament and local councillors on key issues affecting wildlife.
- Actively participating in committees, conferences and summits that lead to change.



### Measurement

In each of our identified areas of policy we will set out our vision and monitor change towards that vision.

We will use a variety of measures, both direct and indirect, to determine how well our voice is being heard, including:

- Reputation surveys and perception audits.
- Invitations we receive to provide evidence and advice on formulation and drafting of policy and legislation (e.g. consultation exercises, white papers, parliamentary committees etc) – and the extent to which our evidence and advice is used in subsequent changes.
- Participation in committees, conferences and summits that lead to change.
- Citation of our reports and publications as part of official documents that lead to change.
- Citation and quotation in parliamentary activity, including speeches, debates, select committee activity etc.
- Media engagement including quotes and interviews.

In each of our identified areas of policy we will set out our vision, monitor change towards that vision and the extent to which we have influenced it using the above measures.

### Deforestation Free Commodities

Deforestation is now the second leading cause of climate change globally and is responsible for biodiversity loss. In the tropics deforestation is largely driven by commercial agriculture in industries such as palm oil, soy, timber and cocoa, amongst others.

Our vision is for deforestation free commodities to become the norm in producing and buying countries and to achieve a 100% deforestation free policy for commodities entering the UK.

Through the experience of our sustainable palm oil campaign (see case study on page 43), we aim to influence business, the palm oil industry, national and international Governments and consumers to support sustainable agriculture.

We will work collaboratively within the zoo community (BIAZA, EAZA and WAZA), and alongside other NGOs to drive forward a strategy to develop globally recognised and enforceable certification schemes for a range of commodities, which will help to protect forests and other vital wildlife habitats.

Particular focus will be placed on areas where forest risk commodities impact our own conservation projects and target species.



### Conservation Education

We want to see conservation action embedded in school curricula across England and Wales. Our experience of the work with the Ignite Teaching School Alliance (see case study on page 40) shows that a whole school approach to conservation action can support a wide range of outcomes for children and society. We will provide opportunities for conservation action to be enshrined within all of the components of the national curriculum.

We will work with partners across the education and conservation sectors and seek to influence the Department for Education, Ofsted, Estyn and other official bodies to ensure that the importance of conservation education in the curriculum and the empowerment of young people to be change makers, is acknowledged in official guidance to schools.

We will work directly with education professionals, and particularly school leaders and those providing training to teachers, to help embed conservation into their curricula and to encourage them to be advocates for change. We will facilitate opportunities for conservation action to be embedded across the different facets of the school curricula.







## Sustainable Tourism

Chester Zoo aims to be a leader in sustainable attractions, creating a framework for reducing the environmental impact of attractions on the environment and working with partners to collaborate on solutions that enable the sector to develop more sustainable ways of operating.

The framework is based around four main principles, which embrace our sustainability goals.

- Working towards zero waste across all zoo operations (reducing, reusing and recycling all resources).
- Achieve a net zero carbon target by 2030 with specific focus around travel, energy and construction.
- Develop a strategy to achieve 100% deforestation free commodities within our own supply chain.
- Using our influence to change the behaviour of consumers and the wider industry

At policy level we will:

- Access funding to enable our operations to become more sustainable as part of the UK's green strategy.
- Contribute to consultations relating to green infrastructure and industry level change to enable us to reach our sustainability targets more easily.
- Join with leaders from other sectors to share learning and best practice.
- Use our influence with the international zoo sector to encourage sustainable practice and promotion of sustainable lifestyles to visitors.
- Influence policy makers to legislate for greater sustainability within the tourism sector whilst maintaining commercial viability for our sector.



## International Conservation

Through active engagement with international conservation bodies and treaties we intend to play our part in ensuring that their policies and practices are grounded in evidence and directed towards effective practical action.

Our research has contributed to measurement of the Convention on Biological Diversity Aichi target 1 (awareness of biodiversity and the steps that people can take to conserve it) and will influence future targets for the Post-2020 Biodiversity Framework.

We have also supplied evidence to support changes to CITES and participated in consultations with the UK government on wildlife conservation in the UK Overseas Territories. During the Covid 19 pandemic we influenced UK Government policy towards zoos through highlighting the conservation and societal value of zoos in a position paper and targeted lobbying.

As an IUCN member and active contributor to specialist groups and task forces we already play a role in influencing IUCN policy. We are engaging with the quadrennial World Conservation Congress through co-sponsoring motions in areas such as tackling the Asian songbird trade, promoting behaviour change and developing a 'One Plan' approach to conservation. We will strengthen this engagement over the coming years through active participation in the Reverse the Red initiative, working with WAZA and others to ensure that the special contribution that zoos make in tackling the biodiversity crisis is fully utilised.

We aim to tie our future policy work in this area closely to our population and conservation landscape projects, ensuring that we take every opportunity to use them as case studies to influence broader international conservation policy towards mitigating threats and promoting effective 'One Plan' solutions.



## UK Wildlife

Our long history of UK focussed conservation has delivered multiple projects supporting the restoration of a range of species and habitats.

We have a wide-ranging set of skills and experts involved in this multifaceted work, with projects in the surrounding landscape but also land management on our own zoo site and nature reserve. Our activities involve an extensive network of partners and varied audiences connected to the zoo. Through Wildlife Connections we have influenced and facilitated positive change for wildlife at a local and regional level and we will continue to build our relationship with local government to help shape and deliver regional environmental policies.

Over the next 10 years we will campaign for change, and help innovate solutions for topics of importance to UK biodiversity, working to influence the UK Government's 25 year Environment Plan and Ten Point Plan for a Green Industrial Revolution. Chester Zoo will be part of the green recovery helping us shift towards more sustainable practises and strategies for farming, food, transport and other key topics that will provide net gains for UK biodiversity into the future.

A man wearing a blue cap and a light-colored button-down shirt with a 'CHESTER ZOO' logo on the chest is sitting in a lush green forest. He is looking upwards and to the left with a thoughtful expression, holding a smartphone in his hands. The background is filled with vibrant green foliage and trees.

## TOGETHER WE CAN CREATE A BETTER WORLD FOR WILDLIFE!

### Join us in Preventing Extinction.

Achieving our mission of preventing extinction cannot be done alone. We rely on partnerships with a wide range of people and organisations, including our visitors, members and supporters.

We work with many other zoos, aquariums and botanical gardens through the cooperative networks provided by WAZA, EAZA and BIAZA and with the global conservation movement via the IUCN. We will continue to strengthen our links with our many NGO, zoo and educational partners and seek new strategic partnerships to help us achieve our ambitions.

We will expand our network of business partners and seek new relationships with local and national Governments to help us achieve our objectives, especially in the areas of people and policy. Above all we will engage our visitors and supporters in our conservation mission and provide new opportunities to work together for wildlife.

There are many ways in which you can join us: Engage with our campaigns at the zoo or online; join one of our training programmes; or volunteer at the zoo. Work collaboratively with our conservationists to help us achieve these targets or support our conservation work by becoming a member, adopter or donor.

We hope the aspirations of this Conservation Masterplan have inspired you to come on the journey with us to prevent extinction. For further information and to join us please visit [www.chesterzoo.org](http://www.chesterzoo.org)

A Conservation Masterplan for Chester Zoo

**CONSERVATION  
AND SCIENCE**  
AT **CHESTER ZOO**



**Preventing Extinction.**