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# **NATURAL CLIMATE SOLUTIONS WHITE PAPER**

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# EXECUTIVE SUMMARY

In line with recommendations from the Intergovernmental Panel on Climate Change (IPCC), we have set a goal to achieve net zero emissions by 2030 for our scope 1 and 2 emissions. Our emission reduction strategy includes leveraging all reduction measures recommended by the IPCC from avoiding emissions, then reducing emissions through efficiencies, then replacing high-carbon energy sources with lower carbon alternatives, and finally investing in certified natural climate solutions where abatement technologies do not exist at scale.

Research published in the Proceedings of the National Academy of Sciences (PNAS) found nature-based solutions for sequestration have the ability to achieve up to 37%<sup>1</sup> of the emissions mitigation required to limit carbon dioxide concentration in the atmosphere.

Utilized as mitigation strategy, natural climate solutions provide immediate emission reductions until the advancement of technological solutions are available and accessible across our carbon footprint.

With Disney's long legacy of protecting the environment, we have focused our investments on strengthening the integrity of vulnerable ecosystems with natural climate solutions. Since 2009, we have invested in over 25 projects, in North America, Peru, China, Mexico, Cambodia, and Honduras. Examples of the projects include forest conservation, restoration and sustainable forest management. Our investments in carbon projects have removed or reduced over 5.3 million metric tons of carbon dioxide equivalents over 2012-2019.

## In the last decade we have:

- Conserved over 1 million acres of forests
- Protected over 760 miles of rivers
- Planted over 9 million trees
- Improved accessibility to recreational areas through trail development and maintenance
- Created over 800 jobs
- Provided socio-economic benefits to over 155,000 families

We seek projects in regions where we can support positive local change. Nevertheless, we prioritize natural climate solutions, which may not necessarily coincide with where our businesses are located. Projects we support must meet rigorous standards for quality established for carbon reduction projects, and be verified with a third-party audit. Projects must use peer-reviewed methodologies grounded in science, and result in emission reductions that are additional, quantifiable, verifiable, and permanent.

Our extensive due diligence includes review of the carbon accounting, management capacity, experience of the organization, consent from parties impacted by the project, and co-benefits of the project. The majority of our collaborators are non-profit organizations who have demonstrated success in the strategic development of multi-benefit programs with long-term positive impacts on conservation and direct benefits to communities. Since science is the cornerstone of nature-based projects, we support organizations that have scientists on their staff and collaborate with experts.

Project developers are responsible to support all carbon reduction claims with a third-party audit. For full transparency, the verification certifications are available on a public registry and unique serial numbers accompany every verified carbon reduction to avoid double counting.

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1. As defined in the [Proceedings of the National Academy of Sciences, Natural Climate Solutions](#), nature-based solutions for carbon sequestration are conservation, restoration, and improved land management actions that increase carbon storage and/or avoid greenhouse gas emissions across global forests, wetlands, grasslands, and agricultural lands.

# INTRODUCTION

The Intergovernmental Panel on Climate Change (IPCC)<sup>2</sup> asserts that complete decarbonization of the economy is required to avoid the worst effects of climate change. Mitigation strategies like technological solutions and natural climate solutions (NCS) are necessary to achieve emission reductions to stabilize atmospheric CO<sub>2</sub> concentrations at desired levels. Scientific studies indicate that it will not be possible to reach global 2030 goals to minimize climate change without the deployment of NCS at scale.

Since 2009, Disney has operated under a long-term vision to achieve net zero greenhouse gas emissions. We have been steadily on track to meet our 2013 goal to reduce our emissions 50% from 2012 levels by 2020, and will report on this progress in our 2020 CSR report.

We have now released an updated goal to get us closer to our vision of net zero. We aim to achieve net zero emissions by 2030 for our scope 1 and 2 emissions.<sup>3</sup> Our emission reduction strategy includes leveraging all reduction measures recommended by the IPCC, following a hierarchy of: avoiding emissions, reducing emissions through efficiencies, replacing high-carbon energy sources with lower carbon alternatives, and finally investing in certified natural climate solutions. We will achieve net zero emissions for our direct operations when we mitigate the remaining measured amount of greenhouse gases released with investments in natural climate solutions.

Actions we take today to avoid and reduce emissions include careful sustainable design choices resulting in less energy demand, and investments to increase our energy efficiency. We are also committed to purchasing 100% zero carbon electricity by 2030, and are increasing our efforts to purchase or procure zero-carbon electricity to match our electricity use. It is important to note that a significant portion of our carbon footprint comes from fuel use in the Walt Disney Company's cruise fleet. Here, significant technology advances are needed to move to low carbon alternatives. NCS will play an important role to mitigating these emissions until other solutions are available at scale. As we deploy our emission reduction strategies,

we anticipate the proportion of natural climate solutions needed to achieve net zero to decrease. [See our white paper](#) for further details on greenhouse gas emission reduction goals and strategies.

As we work towards our goal of net zero emissions, we will leverage NCS projects to drive immediate prevention and removal of carbon emissions, primarily where other solutions do not exist. According to a recent study published in the Proceedings of the National Academy of Sciences, NCS have the ability to provide up to 37% of needed emissions reductions by 2030.<sup>4</sup> The study highlights the importance of NCS and reinforces why we finance NCS projects such as reforestation, improved forest management, and reduced emissions from avoided deforestation.

As detailed in the rest of this document, we seek out high quality cost-effective projects that would not come to fruition if not for the funding we provide. Our due diligence is extensive, in order to support the best in class projects. We have made strategic investments to support NCS projects for nearly a decade to achieve significant emission reductions with a variety of community and ecosystem benefits.

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2. Global Warming of 1.5°C Special Report, October 2018

3. According to the GHG Protocol, Scope 1 emissions include direct emissions from owned or controlled sources, Scope 2 emissions include indirect emissions from the generation of purchased energy, and Scope 3 emissions include all indirect emissions that occur in a company's value chain (including both upstream and downstream emissions).

"Sites under operational control" are defined as those company assets for which we have direct operational control, including responsibility for procuring electricity and fuel. The boundary for greenhouse gas emissions includes owned and operated assets (such as Walt Disney Parks and Resorts, Disney Cruise Line and commercial spaces), leased assets (such as Disney Stores and office locations), as well as Productions (including feature films, television, theatricals, and ESPN).

4. Natural climate solutions, Proceedings of the National Academy of Sciences September 2017

# SUMMARY OF PROJECT BENEFITS

Protecting and conserving nature is part of Disney's DNA, from our [philanthropic work](#) to creating immersive experiences like Disney's Animal Kingdom, and inspiring our audience to value the environment through stories on Disney+ and National Geographic. Focusing in natural climate solutions to reduce carbon emissions aligns with the values of Disney and our environmental stewardship commitment.

Since 2009, we have supported sustainable forest management and forest restoration in North America and China with investments in natural climate solutions. We also support the conservation of expansive tropical rainforests and cloud forests in Peru, Cambodia, and Mexico. Beyond direct investments in natural resources, we support the reduction of forest degradation by investing in projects that reduce cooking fuelwood through the distribution of efficient cookstoves. Our investments in reforestation projects are expected to remove over 1.5 million tons of emissions from the atmosphere. This is equivalent to emissions from removing 324,000 vehicles off the road in a year.

These projects benefit biodiversity, bolster ecosystem services on private and public lands, and deliver economic benefits to local communities. Specifically, our investments in approximately twenty-five forest carbon projects over the last decade have:

- Conserved over 1 million acres of forests,
- Protected over 760 miles of rivers,
- Planted over 9 million trees,
- Improved accessibility to recreational areas through trail development and maintenance,
- Created over 800 jobs, and
- Provided socio-economic benefits to over 155,000 families.

Our commitment to reducing greenhouse gas emissions and supporting the restoration of forests earned [Disney the Climate Action Champion Award](#) and [Commitment to Quality Award](#).

## Box 1: Reduction of Greenhouse Gas Emissions<sup>5</sup>

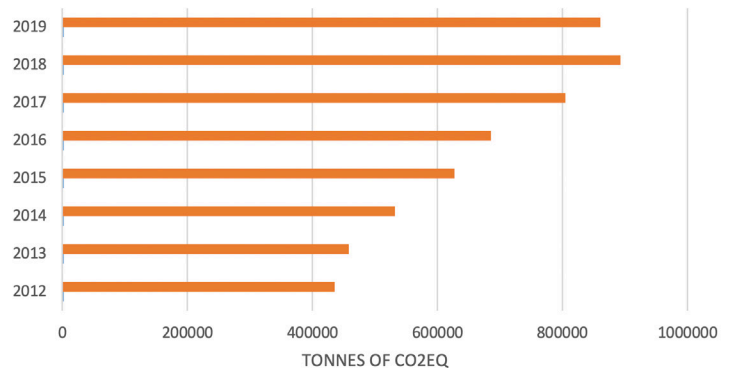


Figure 1: Annual Greenhouse Gas Emission Reductions from Carbon Projects

Our support of carbon reduction projects reduced carbon dioxide equivalent emissions by over 5.3 million metric tons from 2012-2019. This is equivalent to the annual emissions from energy consumption of all households in the state of Minnesota.

In addition, we made investments with our trusted partners to complete projects that will remove or reduce an additional 2.0 million metric tons of carbon emissions over 2020-2023.

5. See The Walt Disney Company Corporate Social Responsibility at <https://www.thewaltdisneycompany.com/about/#social-responsibility>

# KEY IMPLEMENTATION DETAILS

## HIGH QUALITY CARBON CREDITS

While Disney does not develop projects, we seek out projects that have meaningful, real carbon reductions, and positive social-economic impacts. We pursue scalable projects created by project developers using peer-reviewed methodologies grounded in science, and ensure that they result in emission reductions that are **additional, quantifiable, verifiable, and permanent**<sup>6</sup>:

- **Additional** is defined as a project that would only occur with the inclusion of carbon credit revenues. Carbon reductions cannot be a result of regulatory obligations.
- **Quantifiable** is defined as using scientific peer-reviewed best-in-class methodologies to quantify the amount of carbon credits generated.
- **Verifiable** requires third-party audits to certify greenhouse gas emission reductions. The audit confirms recordkeeping, quantifications, and claims made by the project.
- **Permanent** indicates that the carbon emission reductions from a project are irreversible. Natural disasters and unauthorized tree cutting are risks to nature-based solutions that may cause the reductions to be reversed. To counter these risks, forest carbon projects must have mechanisms in place to address reversals. These projects are required to contribute issued credits into a buffer pool as an insurance against such an occurrence. Since the pool is comprised of credits from all forest projects registered with a carbon standard, a reversal in one project would be replaced by credits from other projects.

All projects we support meet rigorous standards for quality. The standards we use are consistent with the principles and requirements from International Organization for Standardization (ISO) 14064, Part 2 and World Resources Institute/World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol for Project Accounting. The standards provide requirements on establishing GHG accounting boundaries, estimating baseline emissions, and monitoring.

The most common standards that we utilize are:

- Verified Carbon Standard (VCS)
- Climate Action Reserve (CAR) – US Mexico
- American Carbon Registry (ACR)
- Gold Standard (GS)
- Climate, Community, and Biodiversity (CCB)
- Panda Standard
- AB32 – California Air Resources Board<sup>7</sup>

Each of these standards creates peer-reviewed methodologies for projects to follow. Each project we support adheres to these methodologies and undergoes third party audits to verify the implementation, monitoring and accounting of carbon removal or sequestration. Public registries house the required documents to demonstrate the impacts and claims for the project. To lend further transparency and avoid double counting of emission reductions, standards issue credits with unique serial numbers to projects who have demonstrated carbon reductions.

When applicable, these specified methodologies require specific actions to safeguard against unintended negative social and ecological consequences. For example, for projects that may affect indigenous communities, the project developer is required to reach out to the affected communities prior to the project development to share the project details and impact, and request consent to proceed (Free, Prior and Informed Consent).

6. Principles are aligned with standards criteria for high quality carbon credits (e.g. Climate Action Reserve, American Carbon Registry, Gold Standard, Verified Carbon Standard, etc.)

7. Compliance program but can be used in the voluntary market



# KEY IMPLEMENTATION DETAILS

## PROJECT REVIEW

We are conservative and selective in the projects we invest in, and we carefully review the project design document (PDD), management plans, and third-party verification reports. Projects specify how they meet the requirements (specified by the standards) in detailed project reports. We also review additional information that may not be included in the reports, such as easement rights, permits, and historical environmental performance of the landowner. By reviewing this information, we can assess:

- Claims to demonstrate why a project would not have occurred under a business-as-usual scenario
- Adherence to governing standards established for carbon projects
- Management strategies appropriate to the regional ecosystems (e.g. use of native species, drought management, erosion control, etc.)
- Strategies to change unsustainable practices
- Amount of carbon reduced or removed
- Support of biodiversity and local economy (e.g. project supports markets and jobs in the area)
- Efforts to collaborate with the community to provide social and economic benefits
- Capacity and experience of the project team to manage and develop successful carbon projects
- Experience working in the project location region, established networks and ability to manage field operations
- Overall support and consent for the project

During the assessment of a project, we also take into consideration:

- Cost effectiveness and scalability of the project
- Methods to reduce habitat loss and disruption of ecosystem services in the region
- Benefits to a diverse population of community members (e.g. recreation, social programs)
- Location of the projects; with preference to projects in regions where we have a business presence
- Alignment of co-benefits to Disney's policies and other environmental goals

When possible, we visit each site prior to investing in a project. The site visit is an opportunity to meet the operational teams and community members impacted by the project, obtain an understanding of the various roles of stakeholders involved, and experience the ground conditions. Along with regular progress reports from the project developers, we maintain periodic site visits as another way to observe the impacts of the project.

Overall project management is as important as adhering to the methodologies set by the standards. We work with experienced project developers that have an exceptional level of in-house expertise on program development, project management, and a comprehensive understanding of environmental processes and ecological benefits.





The majority of our collaborators are non-profit organizations who have demonstrated success in strategic development of multi-benefit programs (supporting communities and conservation). Since science is fundamental to successful NCS projects, we support organizations that have scientists on their staff and collaborate with experts.

As with any investment, there are risks associated with investments in natural climate solutions. These risks may include those related to project management, the geopolitical environment, or the unexpected realities of working in nature, such as pests or natural disasters. We strive to minimize these risks, to the furthest extent possible, through careful selection of projects and diligent on-going review.

With this approach, we have supported over 25 global projects since 2012. Projects we support are inclusive and engage stakeholders from both the private and public sector. The appendix highlights a few projects in our portfolio developed by Conservation International, The Nature Conservancy, and Projecto Mirador Foundation.





## KEY IMPLEMENTATION DETAILS

### PERMANENT RETIREMENT OF CARBON CREDITS

All credits purchased are from projects verified by a third-party audit. The comprehensive audit provides assurance that credits generated abide by the principles and methodologies established by the respective carbon standard. The project developers set the schedule for audits, and coordinate the third-party audits. These usually occur at the end of a 12-month cycle. For ecosystems projects, the cycle may be 24-36 months. During the third-party review, the auditor will conduct interviews, site visits, review monitoring reports and calculations. The auditor submits a findings report to the carbon standards for evaluation. If the project meets all the requirements to demonstrate the high-quality principles and proper implementation of the methodology, the applicable standard will issue a high quality certified carbon credit. The carbon credit is identifiable with a unique serial number that ties it to the project on the carbon registry.<sup>8</sup>

At the end of each year, we apply the carbon credits to our GHG emissions footprint by [retiring the credit](#). The carbon registry that issued the credits delineates the serial number for the carbon credit as retired. Retired credits are permanently removed from the market and cannot be used by any other entity.

In general, we retire credits within three years of the credit generation and the year our emissions occur. A three-year window gives us flexibility in planning for project investments, and provides leeway to our project partners in delivering the certified credits. The window also helps direct investments towards innovative reduction strategies, and encourage new projects to scale emission reductions and avoidances.

## IN CLOSING

Disney will continue to pursue and integrate innovative low-carbon technologies into our operations as they become technically, operationally, and commercially viable at scale. In addition, we expect natural climate solutions to continue being a key portion of a broad portfolio of approaches aimed to respond to the calls for urgent decarbonization.

We will continue to collaborate with NGOs, organizations, and other companies on strategies to decarbonize and make investments in carbon projects that deliver long-term sustainable carbon reductions.

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8. Examples of carbon registries: Verra Registry, The Climate Action Reserve, American Carbon Registry,



# Appendix

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# PROJECT EXAMPLES

Projects we fund deliver lasting benefits to ecosystems and communities, and exemplify our project requirements. Links with additional information on each of these projects are included at the end of this document.

## ALTO MAYO FOREST CONSERVATION

The 182,000 hectare Alto Mayo Protected Forest (AMPF) in Peru faces high deforestation pressures due to illegal logging and clear cutting for agriculture. The project works directly with the community on solutions to benefit families and conserve the biodiverse forest. In exchange for a commitment to help protect the forest (through conservation agreements), the participants receive benefits such as technical training, access to efficient cook-stoves, assistance in developing alternative income (e.g. ecotourism, alternative crops), and tuition assistance.

Since coffee is the predominant crop in the region, technical training on sustainable coffee practices is one of the key offerings available to community members. The training includes how to employ best practices like shade drying, use and creation of compost, and processes to develop an organic crop.

Disney provided the initial funding to Conservation International (CI) to launch the project to reduce deforestation, develop programs to benefit the community, and build capacity for better management of the AMPF.

To expand the market reach of the farmers, Disney connected Joffrey's Coffee & Tea Company with the coffee cooperative from the Alto Mayo region. To further boost demand for the Fair Trade, organic coffee bean, Disney has shared the story of the farmers and project with our audience, and requested Joffrey's Coffee & Tea Company to create a specialty roast sourced from the cooperative that is available for sale online and at Disneyland Resort and Walt Disney World restaurants.

# PROJECT EXAMPLES



Diversification of agricultural crops.



Alto Mayo Protected Forest.



Alto Mayo specialty blend coffee.

## ALTO MAYO FOREST CONSERVATION PROJECT IMPACT

- Created over 200 jobs to support management of the AMPF and increased enforcement of illegal activities
- Established conservation agreements with over 600 families in the communities
- Hosted environmental awareness workshops for youth from the Alto Mayo region
- Provided technical assistance to members on how to diversify their income, including planting of different crops, and establishing eco-tourism venues
- Provided technical assistance to farmers on sustainable coffee practices
- Increased production of high-quality coffee beans (certified organic and Fair Trade), earning the community over \$1,000,000 in 2019 from sales
- Prevented over 49,000 hectares of deforestation and prevented the release of over 6.6 million metric tons of carbon dioxide equivalent since 2008 (verified by a third-party audit)<sup>9</sup>

9. Refer to the third-party verification [reports](#).



# PROJECT EXAMPLES

## SHAFER-TUUK IMPROVED FOREST MANAGEMENT

Small private landowners manage more than a third of the forestland in the United States. Many of these landowners do not have the resources to develop forest management plans. Forests may be sold and converted, or managed poorly to generate income. The Nature Conservancy developed the Working Woodlands program to collaborate with landowners to conserve forests, protect watersheds, and mitigate climate change. Through 2018, the program has enrolled 16 projects in six states. These projects span over 120,000 acres, with the aim of reaching 1,000,000 acres by 2030. Disney invested in the pilot project for this program in 2013, and has continued to support new enrollment like the Shafer-Tuuk forest.

The Shafer-Tuuk family owns approximately 3,000 acres of hardwood forest located in the heart of the Cumberland Plateau in White County, Tennessee. The forest is part of a highly connected network of some of the largest remaining forested parcels in the eastern United States, stretching from Alabama to Pennsylvania, supporting a level of biodiversity unparalleled elsewhere within North America's temperate deciduous forests.

This project created a forest management plan certified by the Forest Stewardship Council, enabling the landowner to market certified timber, while also maintaining a healthy forest to retain carbon from the atmosphere. Through improved management practices, the project is expected to reduce over 186,000 metric tons of carbon dioxide equivalents from entering the atmosphere.

The project serves as a proof point to other landowners about how sustainable forest management is an option for income, rather than selling forestlands for development or converting them to agricultural uses.

# PROJECT EXAMPLES



View of the Shafer-Tuuk forest project.

## SHAFER-TUUK IMPROVED FOREST MANAGEMENT PROJECT IMPACT

- Protected the property from development with a permanent conservation easement
- Maintained and improved wildlife habitat, reduced soil erosion, and protected water quality
- Created forest management plan
- Provided access to educational institutions for research on caves (on the property), and preserved cave ecosystems
- Created additional source of sustainably harvested Forest Stewardship Council (FSC) certified timber into the market
- Supported the local economy for wood products



Field visit to discuss improved forest management benefits.



Markers used to identify monitoring plots for the forest inventory.

# PROJECT EXAMPLES

## CLEAN COOKSTOVES

In rural Honduras, the common method of cooking is over a traditional open fire stove. The rudimentary stoves require a lot of fuel wood, and exposes the user to smoke inhalation. New cookstoves reduce carbon emissions while preventing respiratory health issues.

In order to ensure household adoption of the new stoves, this project required extensive research to develop a custom stove suitable to local Honduran cooking. The project developer, Proyecto Mirador Foundation created a unique plancha style stove, with durable materials, easy maintenance, and a chimney to direct smoke outside of the home. They also integrated design elements to reduce the amount of fuel required by 50%, reducing stress on local forests. Disney's support prevents the release of over 700,000 metric tons of carbon dioxide equivalent emissions.



# PROJECT EXAMPLES



Rudimentary traditional cook-stoves are generally inefficient and in need of replacement.



Cook-stove materials are locally sourced



Family with new efficient cook-stove.

## CLEAN COOKSTOVES PROJECT IMPACT

- Improved respiratory health of ~150,000 families by directing carbon monoxide and particulate matter outdoors
- Reduced costs associated for basic cooking needs
- Created 21 microenterprises and 145 jobs to support the outreach, construction, monitoring and support of the cook-stoves
- Uplifted economy by sourcing all materials for the stoves locally
- Built over 150,000 stoves since the start of the project

# PROJECT EXAMPLES

## FOREST CARBON PARTNERSHIP FACILITY

Halting deforestation is critical to reducing greenhouse gas emissions globally. Many developing nations lack the capacity, resources, and/or incentive to manage their forests sustainably.

The World Bank created the Forest Carbon Partnership Facility (FCPF) to pilot national and jurisdictional-scale programs to Reduce Emissions from Forest Degradation and Deforestation (REDD+). These large-scale programs were designed to link country-level work on forests with public and private sector financial support in order to confront the enormous need to reduce global deforestation and combat climate change. The program established upfront grant-based funding mechanisms to support more than 40 developing nations with commitments to conserve forest landscapes and create programs with effective monitoring of socio-economic benefits. In addition, through a “payment for performance mechanism,” The Nature Conservancy, along with other funders, has agreed to purchase greenhouse gas emission reductions from participating countries. These emissions reductions result from reduced deforestation and forest degradation that this program enables.

Disney has partnered with the Nature Conservancy to help these countries demonstrate emissions reductions. We have committed to support the sequestration of up to 350,000 metric tons of greenhouse gas emissions from FCPF countries.

# PROJECT EXAMPLES



## FOREST CARBON PARTNERSHIP FACILITY PROJECT IMPACT

- Supported capacity building for preventing deforestation and forest degradation at the largest scale possible in order to confront the effects of climate change
- Linked this work to countries' national approaches and commitment to the Paris Agreement for complementarity and increased effectiveness
- Improved local livelihood and supporting progress for securing user rights for local communities
- Enhanced biodiversity, and demonstrate the value of standing forest for natural ecosystems



## AWARDS

Climate Action Reserve:  
Climate Action Champion (2013)

American Carbon Registry:  
Commitment to Quality Award (2013)

Conservation International:  
Global Conservation Leadership Award (2013)

## LINKS TO EXAMPLES - PROJECT DOCUMENTS

[Alto Mayo Forest Conservation Initiative](#)

[Shafer-Tuuk Improved Forest Management](#)

[Clean Cook-stoves](#)

[Forest Carbon Partnership Facility](#)

## VIDEO LINKS

[Alto Mayo Forest Conservation](#)

[Clinch Valley Improved Forest Management](#)

[Cuyamaca Rancho State Park Restoration](#)

[Lower Mississippi Valley Restoration](#)

