PONO ISLAND CAPITAL LLC

Intro to Carbon | Project Development | Application to Restoration

Essential Leap Webinar

Founded in 2000, Pono Pacific is Hawai‘i's first and largest private natural resource conservation company providing land management, restoration services, sustainable agricultural development, and eco-asset development for large and small-scale projects throughout the state. Rooted in **pono** - doing what is right and living with integrity- our innovative services strive to restore and protect Hawai'i's unique ecosystems, while building land-based regenerative industries for the local economy.

PONO PACIFIC

PONO ISLAND CAPITAL

SISTER COMPANY OF PONO PACIFIC

SUSTAINABLE LAND DEVELOPMENT

- DIVERSE AGRICULTURE PRODUCTION
- FARM INFRASTRUCTURE
- FARM MANAGEMENT
- WASHING, PACKING, DISTRIBUTION
- HYDROPONICS
- FARM TOURS, EDUCATION & EVENTS
- CONSERVATION EASEMENT & COMPLIANCE
- PROJECT MANAGEMENT
- FINANCIAL SERVICES

CONSERVATION

- FENCE CONSTRUCTION & MAINTENANCE
  - UNGULATE- PROOF (PIG/DEER FENCES)
  - Predator-proof (bird nesting areas)
  - Snail enclosures
- INVASIVE SPECIES CONTROL
- TRAIL CONSTRUCTION/MAINTENANCE & RESTORATION
- LAND MANAGEMENT & RESTORATION
- GOVERNMENT & PRIVATE CONTRACT MANAGEMENT
- WATERSHED/COASTAL RESTORATION
- GEOGRAPHIC INFORMATION SYSTEM (GIS)

FENCING

190,000+

Linear feet
of remote repair, modification and installation of predator & ungulate control fencing.

ERADICATION

6,000+

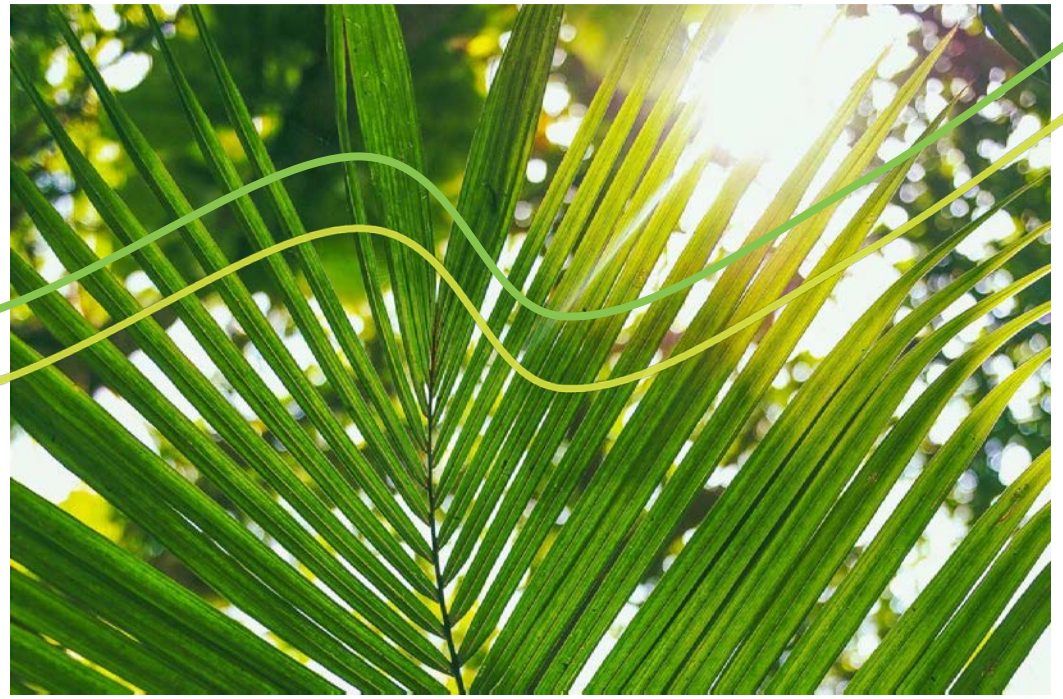
Acres
of invasive species controlled annually: tracking, trapping, removal, management.

MAINTENANCE

14,000+

Acres
of trail construction, maintenance and restoration across our Hawaiian islands.

INTRODUCTION TO CARBON OFFSETS

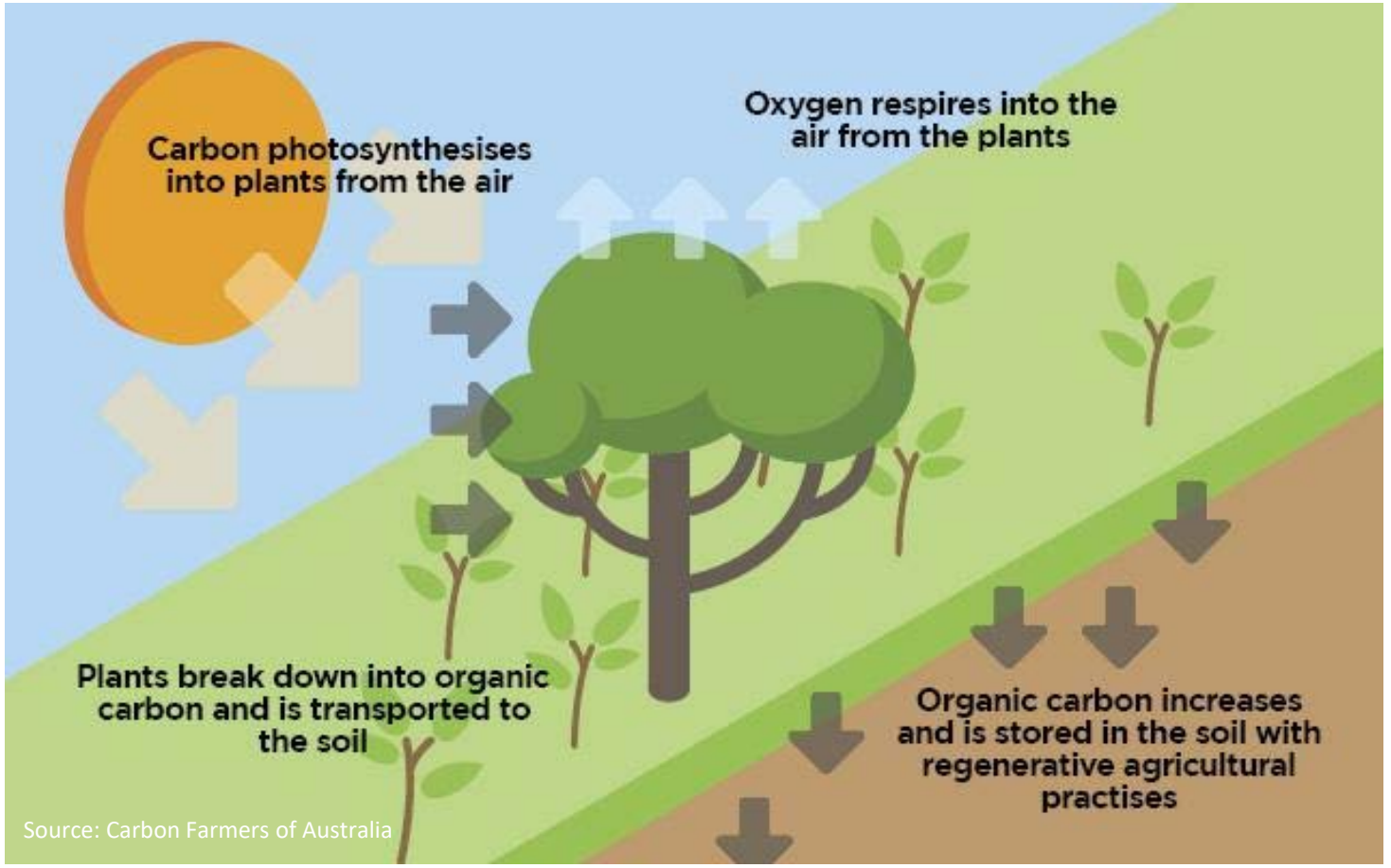


CARBON SEQUESTRATION

THE PROCESS OF CAPTURING AND STORING ATMOSPHERIC CARBON DIOXIDE.

CARBON OFFSET

AN INSTRUMENT REPRESENTING THE REDUCTION, AVOIDANCE OR SEQUESTRATION OF ONE METRIC TONNE OF CARBON DIOXIDE OR GREENHOUSE GAS EQUIVALENT.

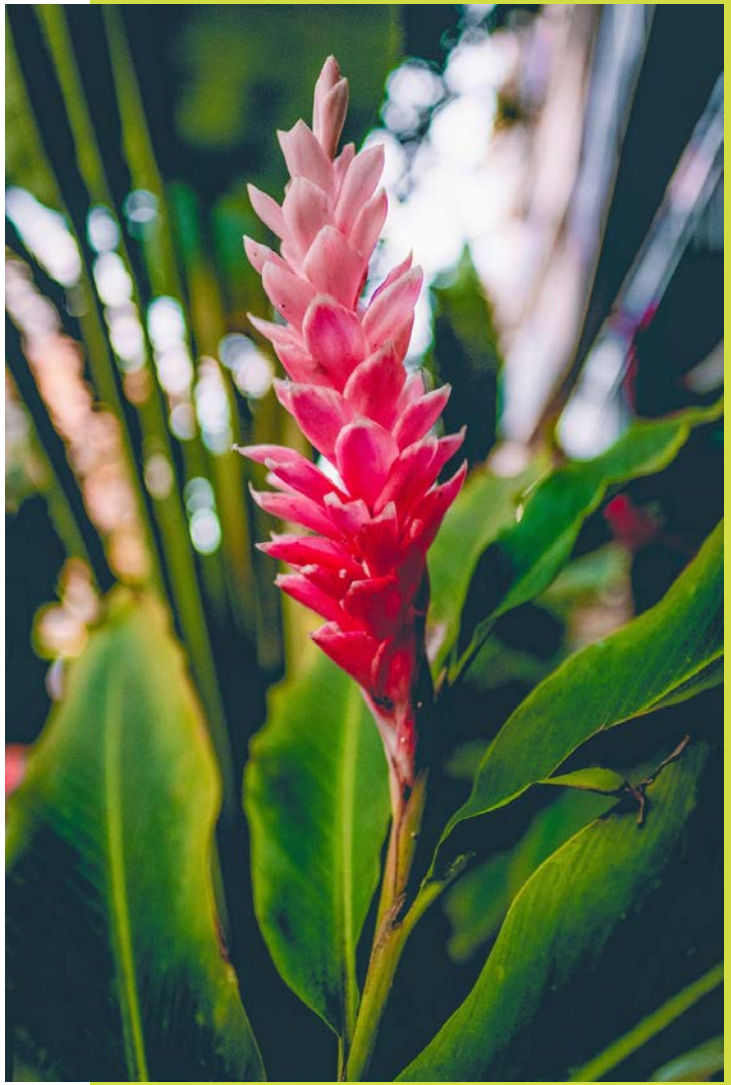


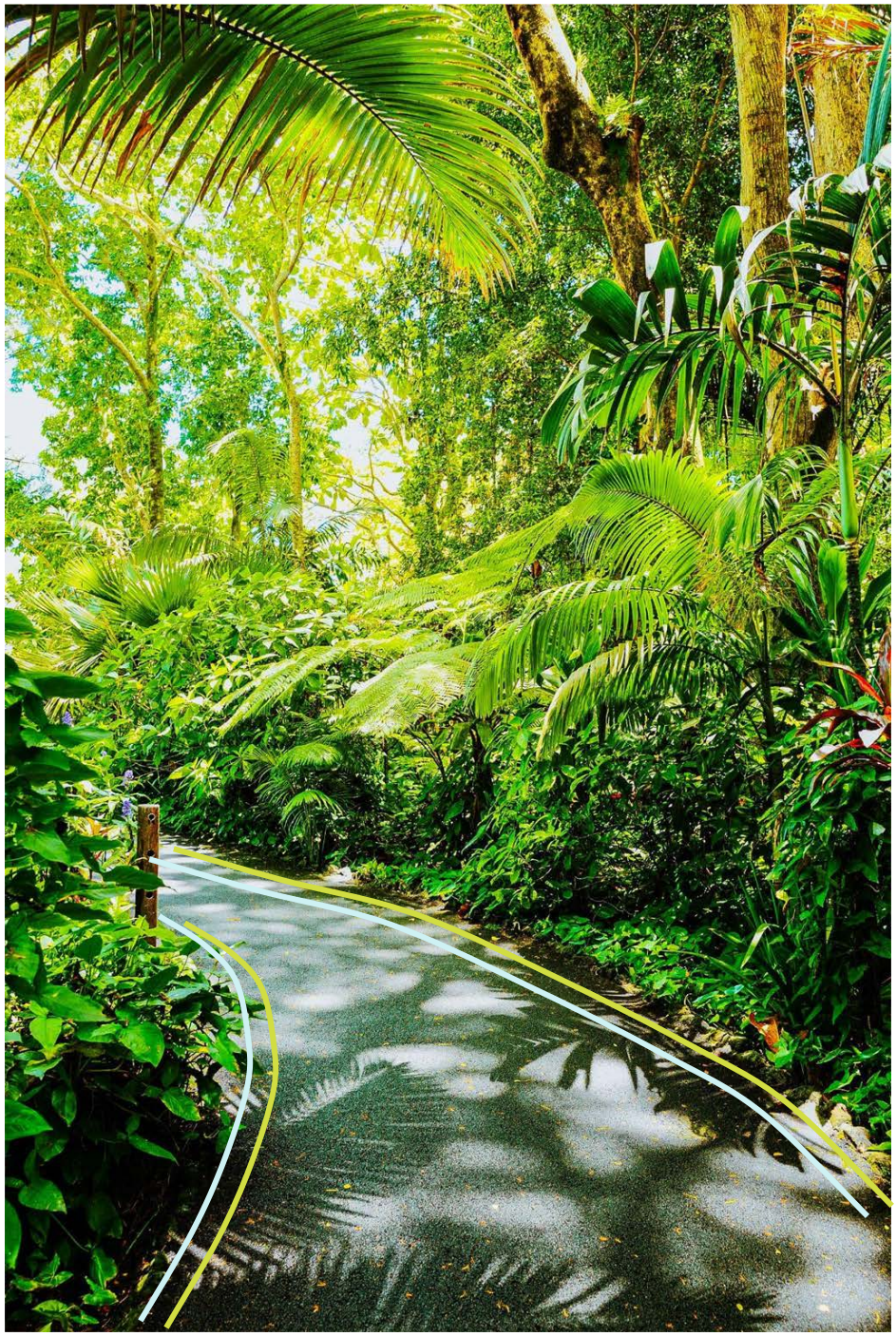
GLOBAL GROWTH OF THE VOLUNTARY MARKETS

CARBON PROJECT DEVELOPMENT

FOREST CARBON PROJECT DEVELOPMENT REQUIRES CARBON BENEFITS TO BE QUANTIFIED USING RIGOROUS METHODOLOGICAL APPROACHES, INDEPENDENTLY VALIDATED, AND LATER VERIFIED FOR ISSUANCE OF CERTIFIED CARBON CREDITS.

Source: Forest Trends 2011





NEXT STEPS

VALIDATION Validation is the process whereby an independent accredited auditor reviews the project documentation and design in order to certify that it meets the criteria and rules of the respective standard and applicable methodology.

Validation makes a project eligible to generate carbon credits and is necessary to be formally accepted and registered under the respective standard.

REGISTRATION Following successful validation, registration is the point at which the project is formally recognized as eligible to generate credits under the relevant carbon standard and available for public view.

IMPLEMENTATION Implement the planned project activities as outlined in the approved project design. Implementation of project activities can begin prior to validation, but it may be prudent to wait in order to reduce risks and uncertainty.

MONITORING Monitoring is a critical step in actually realizing carbon value from the project. Poor quality monitoring can cause significant loss of carbon credit revenue. Monitoring activities should follow the plans outlined in the project design.

VERIFICATION Verification is the key step preceding actual issuance of carbon credits. During verification, an external auditor reviews and certifies the volume of GHG benefits that the project has actually achieved and monitored.

ISSUANCE The request for issuance of carbon credits varies between registries. Generally upon successful verification, a formal communication is generated that the project proponent can present to request the registration and issuance of carbon credits.

STEP 1

DEFINE PROJECT & OBJECTIVES

- **IDENTIFY PROJECT LOCATION**
- **WHAT ARE THE OVERALL OBJECTIVES AND GOALS OF THIS PROJECT?**
- **WHAT ACTIVITIES WILL NEED TO BE COMPLETED TO ACHIEVE THESE OBJECTIVES AND GOALS?**
  - It is important to remember carbon projects are typically composed of at least two types of activities: 1) those that generate carbon benefits, such as planting trees, and 2) those that are part of the certification process.
  - Is the project location & scale favorable for these activities?
  - What will be required to successfully conduct these activities?
  - Are there compliance or permitting requirements?
- **DECIDE ON THE TYPE OF PROJECT**

Afforestation and Reforestation (AR) Projects

AR projects refer to planting trees or otherwise converting non-forested to forested lands. Afforestation *refers to establishing forests on land that has historically not had forest cover, while* reforestation *refers to lands that have been deforested, generally prior to a specific cut-off date.*

- Assess available areas for reforestation
- Identify species mix and planting plan, taking into account overall project goals
- Determine silvicultural approaches & overall management

Improved Forest Management (IFM) Projects

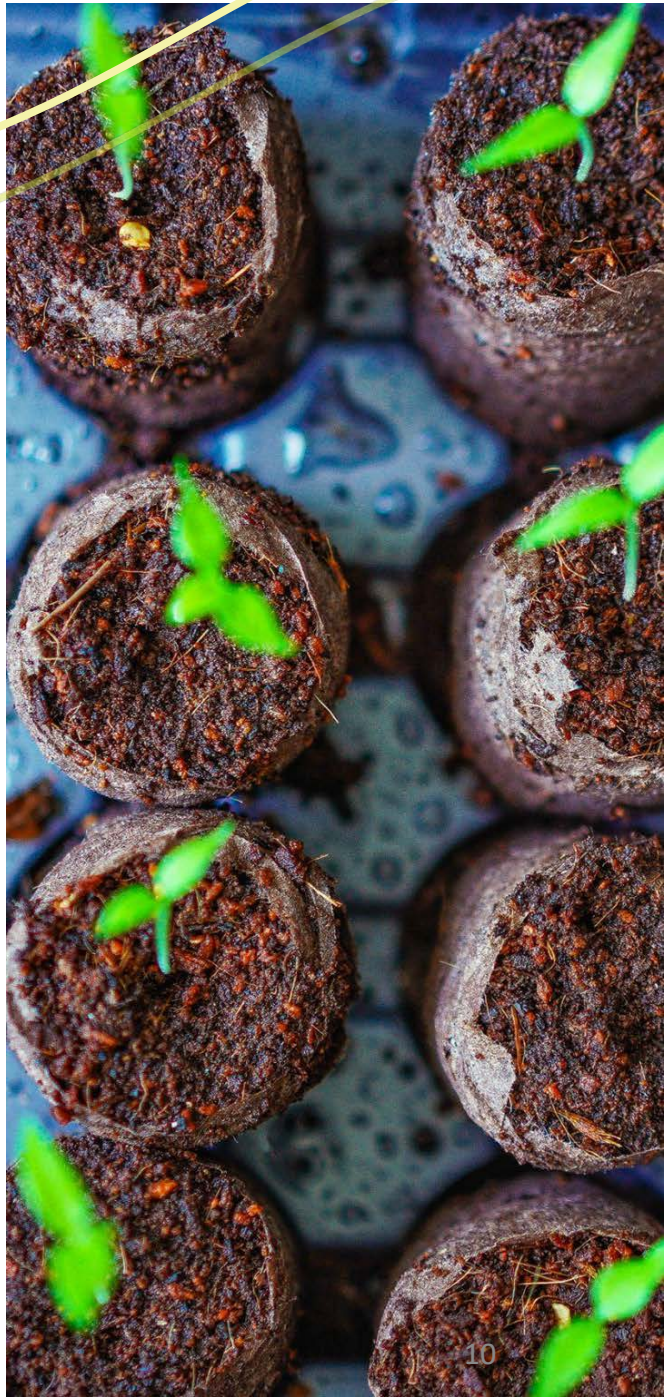
IFM projects seek to actively improve forest management to maintain and/or increase carbon stocks in forest areas or remaining forests

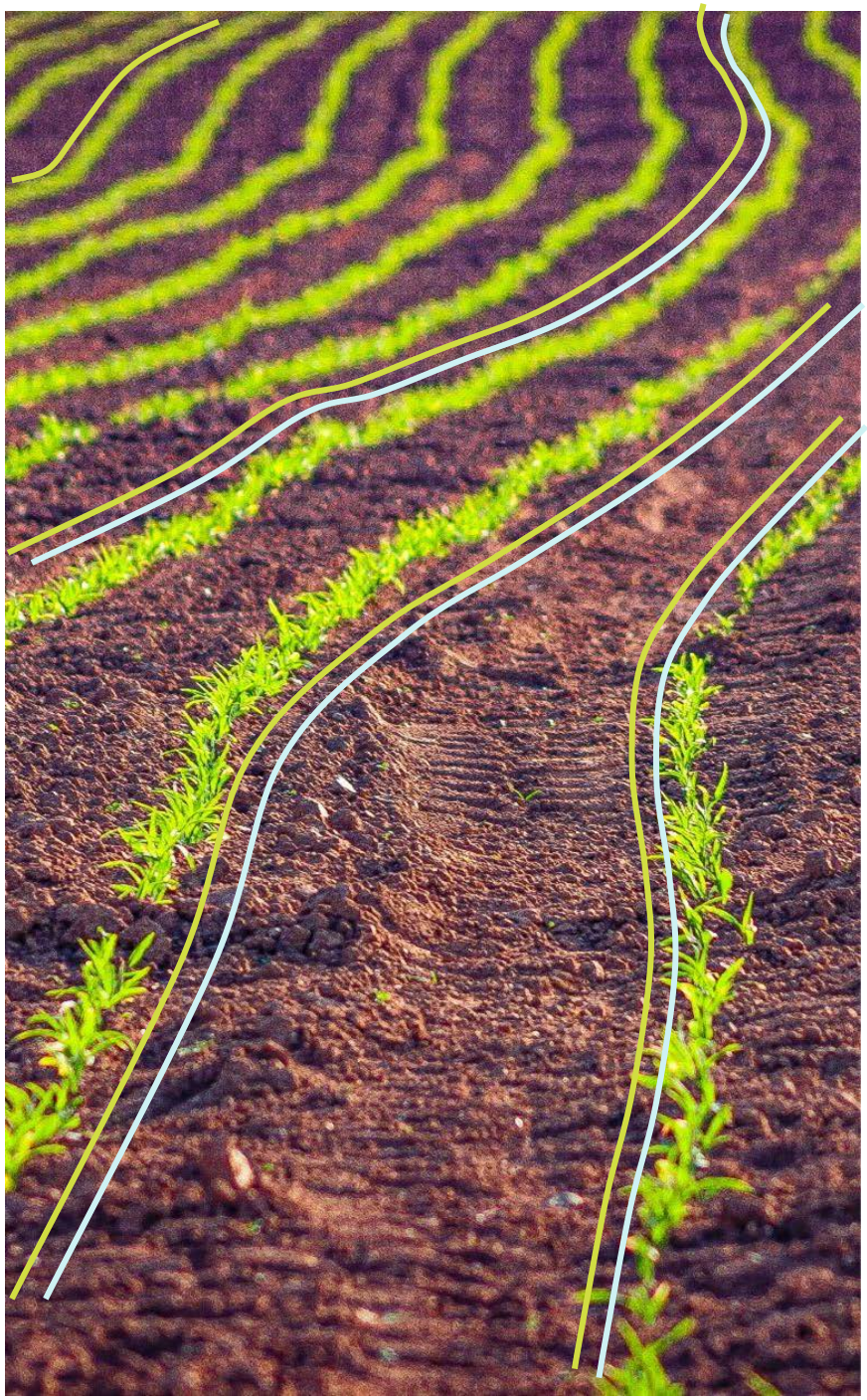
- Need to identify & mitigate key drivers of degradation

Reduced Emissions from Deforestation and Degradation (REDD)

REDD projects aim to avoid the conversion of forests to non-forested areas or to avoid activities that reduce their carbon stocks without leading to outright conversion.

- Analyze key drivers & agents of deforestation to define & implement activities that will address these pressures.





STEP 2

CONDUCT PROJECT REVIEW & ASSESSMENTS

A Project Idea Note (PIN) is a summary description of a proposed project and can be used for engaging governments, investors, and endorsements. The following elements should be included:

- *Characteristics of baseline*: What would happen without the project? What are the driving forces of land use and change?
- *Estimate of forest carbon stocks or sequestration potential*: What are the carbon stocks of any existing forests on project lands? What are the carbon sequestration rates of planted trees or regenerating forests?
- *Preliminary estimate of carbon benefits*: This refers to the differential between baseline (without project) and project scenario. What is the realistic impact of the proposed project activities in terms of reducing emissions?
- *Additionality*: What are the arguments for claiming that comparable project activities or carbon benefits would not have happened in the absence of a carbon project?
- *Social and environmental impacts*: What are the likely key impacts on local populations, ecosystems, and biodiversity?

OTHER POSSIBLE COMPONENTS:

• Carbon ownership and land tenure • Management and governance structure • Stakeholders and beneficiaries
• Safeguards • Benefit sharing • Non-carbon benefits

STEP 3

DEFINE STANDARD TO USE

Based on the project's characteristics, projected scale of carbon benefits, location, and fit with available methodologies, project proponents need to define which standard to use and which market segment they are aiming for.

VERRA (PREVIOUSLY VCS)

- Preferred carbon accounting standard by buyers in the voluntary and pre-compliance markets and captures the majority of all forest carbon transactions
- Developed methodologies and manages the Climate, Community & Biodiversity Standards
- Allows for grouped projects
- Emphasize effective community involvement

CDM

- Allows projects in developing countries to produce credits for the Kyoto markets
- Laid the groundwork for AR forestry methodologies

AMERICAN CARBON REGISTRY (ACR)

- Publishes standards, methodologies, protocols and tools for project accounting
- Largely follows an approach similar to Verra and uses tools and methodologies based on Verra and CDM, although it is implementing an innovative alternative risk non-permanence issuance approach

CCB

- Most prominent standard for ensuring social and biodiversity co-benefits
- Do not lead to issuance of carbon credits
- Emphasize effective community involvement

CLIMATE ACTION RESERVE (CAR)

- Emerged from California Climate Action Registry
- Includes urban forestry component

STEP 4

DEFINE ROLES & COSTS

ROLES AND RESPONSIBILITIES

- Overall project lead and coordinator
- Owner of forest carbon
- Owner of the land
- Technical providers
- Business and legal
- Stakeholder relations
- Project implementation
- Monitoring and third-party audit

COMMON PROJECT COST CATEGORIES

- Staffing
- Design of project activities
- Methodology development
- Imagery and analysis
- Ground-truthing / forest inventory
- Carbon baseline and modeling
- Social and biodiversity assessments
- Stakeholder consultation
- Legal counsel
- Third-party validation
- Implementation phase
- Taxes
- Ongoing monitoring
- Third-party verification
- Registration and issuance fees

STEP *5*

FINANCING

Finance or revenues may come from several possible sources and can play a valuable role for different projects or at different stages:

Investors: have an interest in realizing returns from financing provided to the project (in the form of a share of credits or profits when credits are sold). In return for assuming more of the project risk, an investor may want control over some project activities.

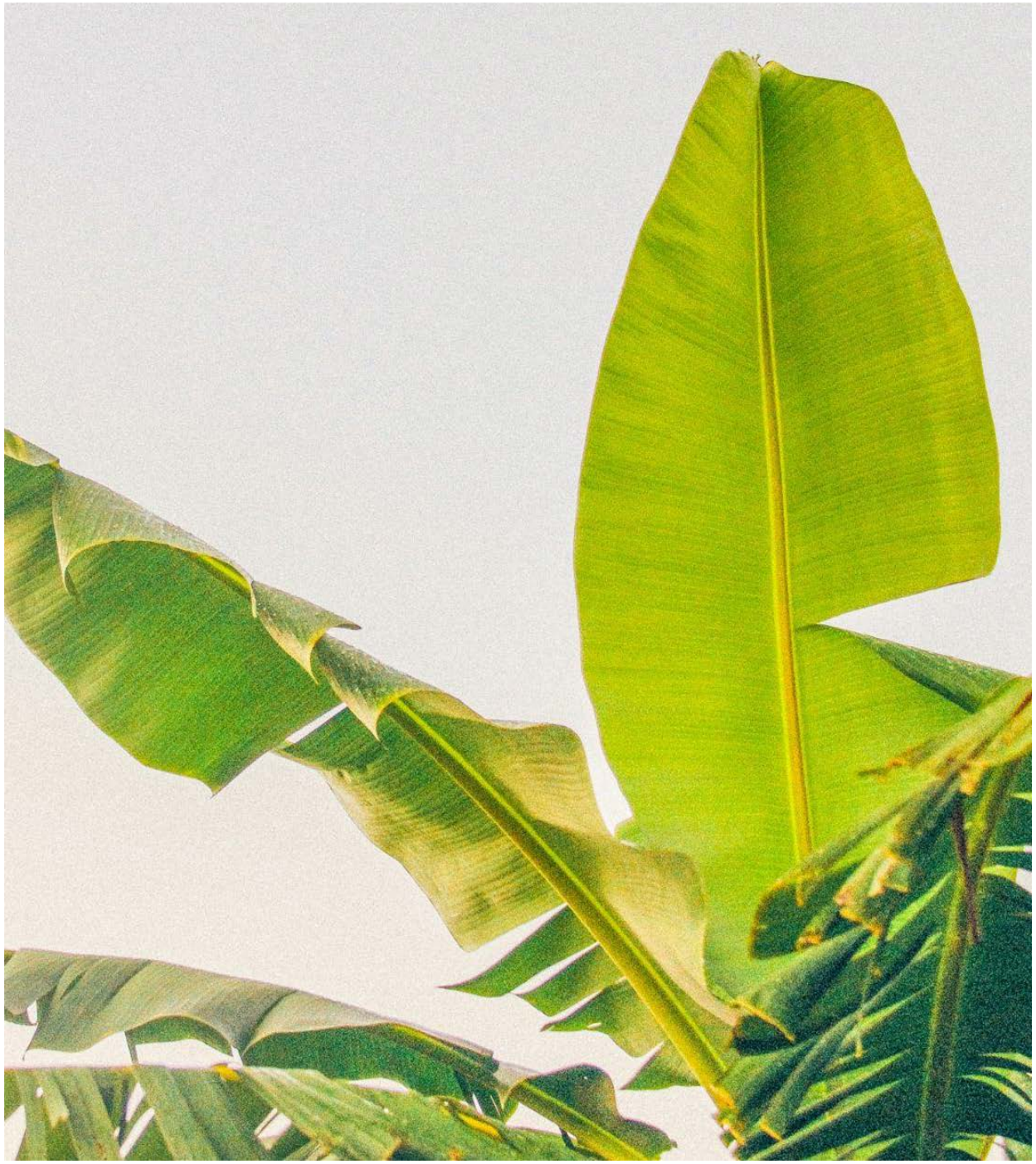
Buyers: acquire offsets to meet their regulatory or voluntary commitments. They may provide upfront finance, guarantee a future price, commit to purchasing a certain volume and/or purchase verified and issued credits.

Brokers: do not actually buy the project's carbon credits but rather find buyers and match them with sellers (projects), often according to previously agreed upon preferences or conditions. They typically receive a percentage of the transaction value as fee for their services.

Donors: may be willing to provide complementary funding for some core activities, in effect valuing other conservation or community attributes besides the emissions reduction benefits.

Pono Island has also engaged with potential corporate partners and grant organizations and investment funds to seek seed funding.

- Arbor Day Foundation
- National Fish and Wildlife Foundation
- Corporate partners
    - Start-up investment
    - Percentage of sales contributed
    - Promotion of projects to customer base
    - Volunteer hours
- Climate Asset Management
- Ecosystem Investment Partners



POTENTIAL PILOT SITES

PU‘U MALI
RESTORATION AREA

5,000
ACRE

MAHALO

PONO PACIFIC