sustainacraft

- **Unlocking NbS in JCM through Carbon Project Development and Assessment Support**

What We Offer

We provide support for procurement of carbon credits for Japanese corporations

(1) Support services for procurement of carbon credits

We provide consistent support from carbon credit procurement strategy development to deal search and transaction support.

Procurement Strategy Planning

- ***What about Article 6.4 credit*** *?*
- ***What is the status of CORSIA and CCP****?*
- *What is the* ***J-Credit/JCM potential used in GX/ETS****?*
  What is the ***quality risk****?*
- *What are the future* ***technological progress*** *and* ***cost outlook for creation*** *of removal credits?*

Sourcing and Assessment

- *When it comes to procurement,* ***which country, activity type****?*
- *How* should a portfolio be constructed?
- Which developers ***have track records*** *in each country and deal type?*
- *What are the* ***risk factors*** *and****d economics (IRR and unit cost of procurement****t) of each project?*

Progress check Monitoring

- *What are the* ***appropriate contract terms****for hedging downside?*
- *Are the projects that have implemented investment and off-take agreements* ***pursuing their activities****as planned?*

nature.cocraft

Joint procurement service for carbon credits
nature.cocraft operates **a platform that enables companies to form coalitions and efficiently procure reliable overseas carbon credits from** September 2024.

(2) Optimal procurement design for corporate supply chain

tracecraft

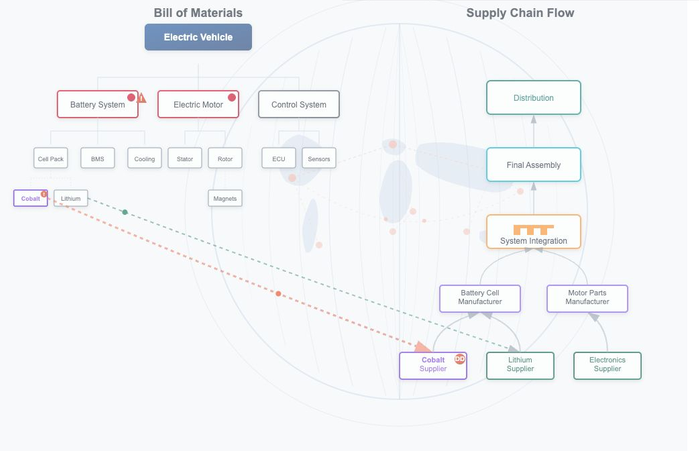
Tracecraft estimates high-risk sourcing countries and suppliers, and performs quantitative analysis of assumed CBAM and customs costs by utilizing global trade information, etc., assuming that the information has not been fully collected. Our proprietary data processing technology enables us to provide analysis results at high speed even for complex, multi-layered supply chains.

✔ Impact of various regulations
- CBAM / EUDR / ...
- European Battery Regulations

✔ Commodity Price Fluctuations
- Climate Change Causes Agricultural Commodity Prices to Skyrocket ....

✔ tariff implications
- USMCA rules of origin
- Battery imports from China ...

✔ CFP
- What is the carbon footprint considering different countries and different manufacturing processes?



What We Offer

Procurement Strategy Planning Support

Scope of Work

I. Credit Trends (Supply Side)

Organize the following by methodology (Target: J-Credits, JCM (Article 6.2), International Voluntary Credits, Article 6.4 Credits)

- Project pipeline (supply potential)
- Price outlook (current and future)
- Supplier map and investment trends

II. Credit Trends (Demand Side)

Trends in GX/ETS, SBTi, GHG Protocol, as well as potentially influential EU-ETS, CBAM, EUDR, etc.

- Domestic emissions trading system (GX/ETS)
- SBTi: Treatment of carbon credits (BVCM, insetting, neutralization of residual emissions)
- GHG Protocol: Approach to calculation within corporate boundaries (under what conditions insetting is determined)
- Other influential regulatory trends (environmental claim regulations such as EU Green Claims Directive, EU-ETS, CBAM, EUDR, etc.)
- Trends in originating countries (overseas export regulations, domestic introduction of carbon tax/emissions trading systems, etc.)
-

III. Pros/Cons of each options

Based on I and II above, organize available options and their respective pros/cons

- Pros/cons consider the following elements: Price / Supply potential and stability / Quality (criticism risk)
- As "available options," organize options regarding procurement schemes in addition to credit mechanisms and methodologies
- Organization of domestic and international (mainly overseas companies) project participation examples

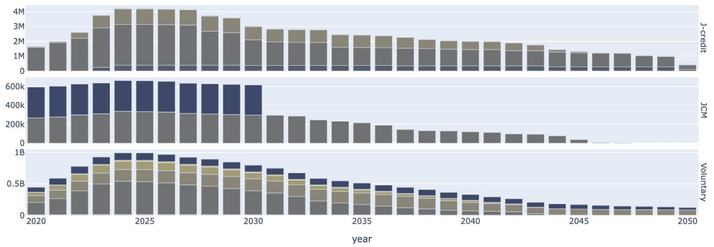
Ⅳ. Portfolio design and Execution

Design portfolios from organized options and design/execute plans

- Design portfolios based on the options organized above
- Organization of necessary organizational structure and capabilities to be equipped for actual procurement advancement
- Promotion of items to be implemented in the short term

Output Image

Supply potential by 2050 by Activity type



Effect of A6.4

国	制度	制度における炭素クレジットの扱いの現状・見込み
日本	GX-ETS	
シンガポール	炭素税	
スイス	CO2法	
	Swiss ETS	
EU	EU-ETS	
	CBAM	
UK	UK-ETS	
	UK-CBAM	

Pros/Cons

炭素クレジットメカニズム	分類	価格	供給	品質	総合評価
Jクレ	エネルギー系				
	森林系				
	CDR系				
JCM	エネルギー系				
	自然由来				
	CDR				
ボランタリー	エネルギー系				
	自然由来				
	CDR				
6条4項	吸収系				
	排出削減系				

What We Offer

Project Sourcing and Assessment

Illustrative purpose only

	Developer Proposal	Our Rating	Example ① ARR(native tree species) 🇧🇷	Example ② REDD+ (WRC) 🇮🇩	Example ③ IFM (protected forestation) 🇺🇸
Carbon Yield	1.6M (tCO2)	1.2-3.0M (tCO2)	**Are forest growth assumptions** reasonable? Is the business growing as expected after the start of the project?	Are the assumptions for **baseline emissions** reasonable? (Are assumptions regarding peat thickness and peat degradation rates reasonable?)	Are the baseline assumptions reasonable? To what extent could carbon stocks increase if the forest is converted to a protected forest? Is the assumption of a **"removal" ratio** reasonable?
Cost	16.0 (M USD)	19.2-27.9 (M USD)	Are the costs of implementing the activity properly planned? What uncertainties are there in the future depending on internalization/outsourcing of nurseries, etc.?	**Are the implementation costs for rewetting and channel construction** properly planned? Is the level of **Benefit Sharing** reasonable?	**Are the assumptions for land acquisition and construction costs** reasonable?
Risk	13%	18-30%	Does the project developer have sufficient capacity/track record? Can the local tree species selection/germination process/planting strategies to improve carbon stocks be identified and implemented? Will local jobs continue to be created?	How much **peat fire** is expected? Are measures taken to reduce the risk of fire, etc., or to mitigate losses in the event of fire, etc.?	What is the **extent of forest fire risk**? What is the actual impact of a fire?
Financial	11.9 USD/tCO2	9.8-43.1 USD/tCO2	Is there a sufficient return on investment expected based on the amount of credits generated, costs, and risks? What options are available to hedge downside risk?	Is there a sufficient return on investment expected based on the amount of credits generated, costs, and risks? What options are available to hedge downside risk?	Is there a sufficient return on investment expected based on the amount of credits generated, costs, and risks? **Are the timber revenue and land sale assumptions** reasonable? **What about conservation easements and other financial uncertainties**?

What We Offer

Progress Checks and Monitoring

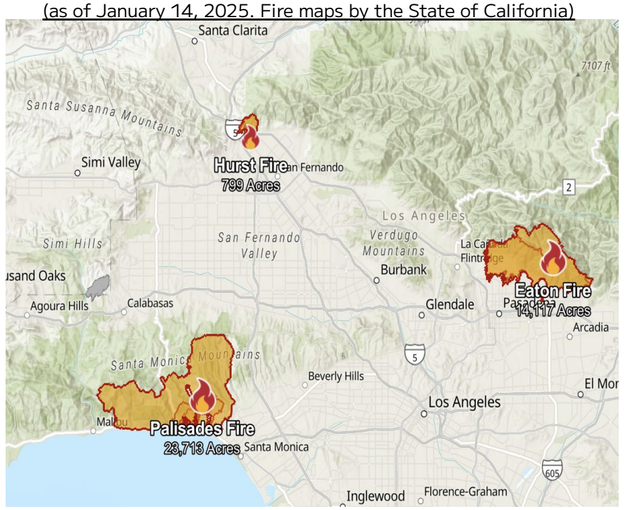
Rapid-response forest fire monitoring

Forest Fire Analysis Case Study: Fires in California, USA, January 2025

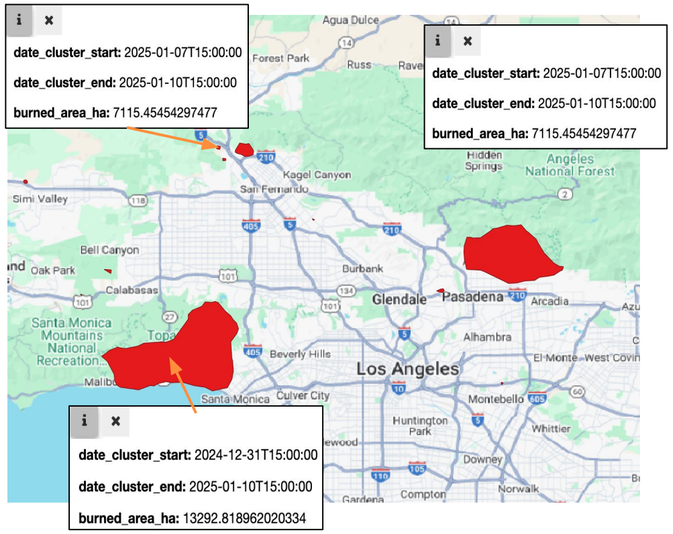
Estimates of the extent of the impact of the large forest fires that continue in California, USA.
The estimates generally agree with the fire map (CalFire) published by the State of California.
We are able to monitor **any location on a daily basis**, allowing us to quickly provide investors and others with rapid **fires occur in forest funds, etc.**.

CalFire results

(as of January 14, 2025. Fire maps by the State of California)



Estimated by our algorithm (as of January 10, 2025)



Estimation of forest carbon stocks with satellite data and hierarchical models / zoning

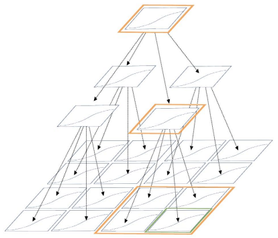
<Fusion of satellite data and statistical models

- Robust estimation of noise that cannot be removed by satellite imagery alone by combining hierarchical growth models<a1

<Zoning>>

- Design optimal scenario for industrial and environmental afforestation based on distance from forest roads slope vegetation index etc.
- Sensitivity analysis of economic potential for future timber and carbon prices to support investment decision making

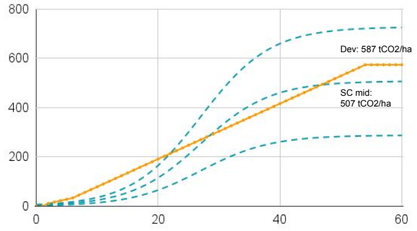
Conceptual Diagram of Hierarchical Growth Model



$\theta \sim N(\mu, \sigma)$ forestry level

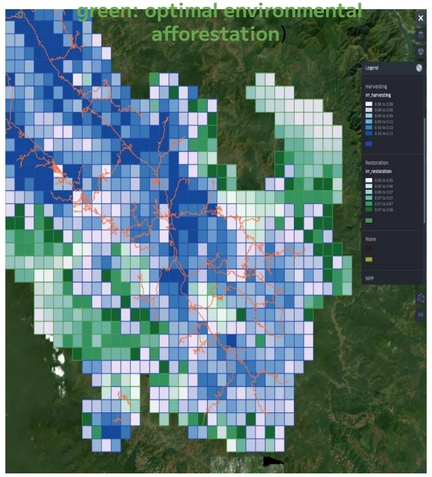
$\theta_i \sim N(\theta, \lambda)$ subgroup level

$\theta_{ij} \sim N(\theta_i, \eta)$ minor level



Identification of optimal activity scenario (zoning)

(**blue: optimal industrial afforestation**, green: optimal environmental afforestation



$$\max_{x_1,\ldots,x_n} 1/n \sum_{i=1}^{n} \mathrm{IRR}(revenue(SI_i, x_i), cost(slope_i, dist_i, x_i, \mathbf{x}_{-i}))$$

What We Offer nature.cocraft

We support Japanese corporations through
Nature-based Carbon Credit Joint Procurement Platform (NCC)

We enable Japanese enterprises to procure **highly reliable overseas carbon credits with low cost.**

Our goal is to supply a **cumulative total of 100 million** tons of nature-based credits **by 2030**,

for **contribution to the circulation of funds to natural capital.**

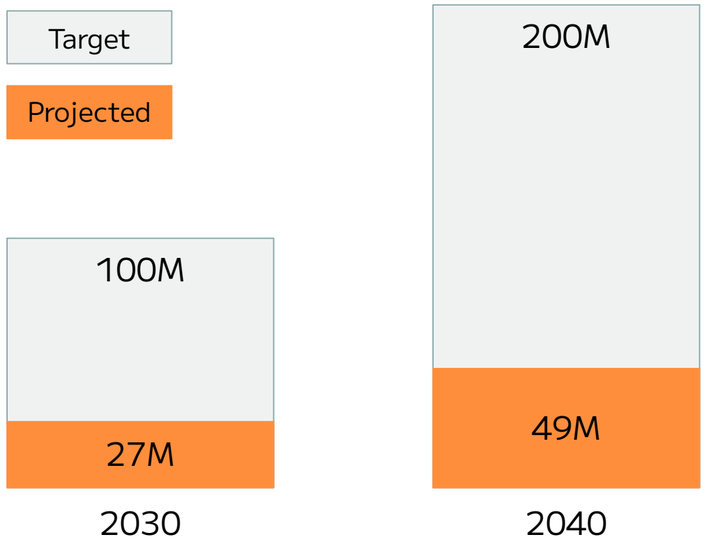
Why JCM

Growing Opportunity and Demand for NbS JCM project development

Drive for scaling JCM

- Projected JCM credit amount is far short of the Japanese government's target of 100M by 2030 and 200M by 2040
- GX-ETS is starting in 2026 and JCM and J-credits can be used up to 10% of corporate's emission
- **Japanese corporates are eager to invest in JCM projects and Japanese government offers grants for feasibility study**

Target and projected amount of JCM Credits

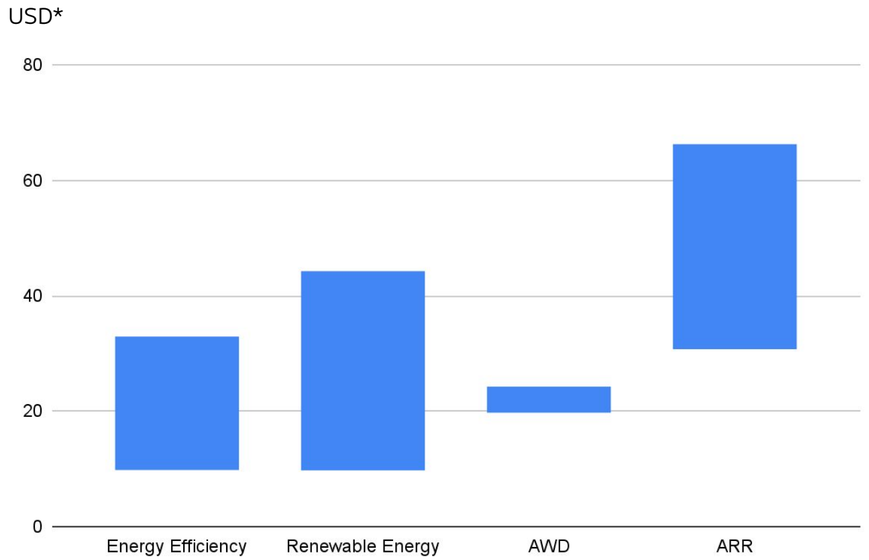


Source: OECC

Expected JCM credit price range

- Given the nature of the compliance market, the price range of J-credits could serve as a reference point
- **For JCM credits, a range of USD15-30 could be a considered reasonable. （Subject to GX-ETS rule making)**
- **Given that NbS project in south east asia can be economically feasible**

J-credits price range (Oct 2023 to July 2025)



Source: Japan Exchange Group
* Converted from JPY to USD at an exchange rate of USD 1 = JPY 150

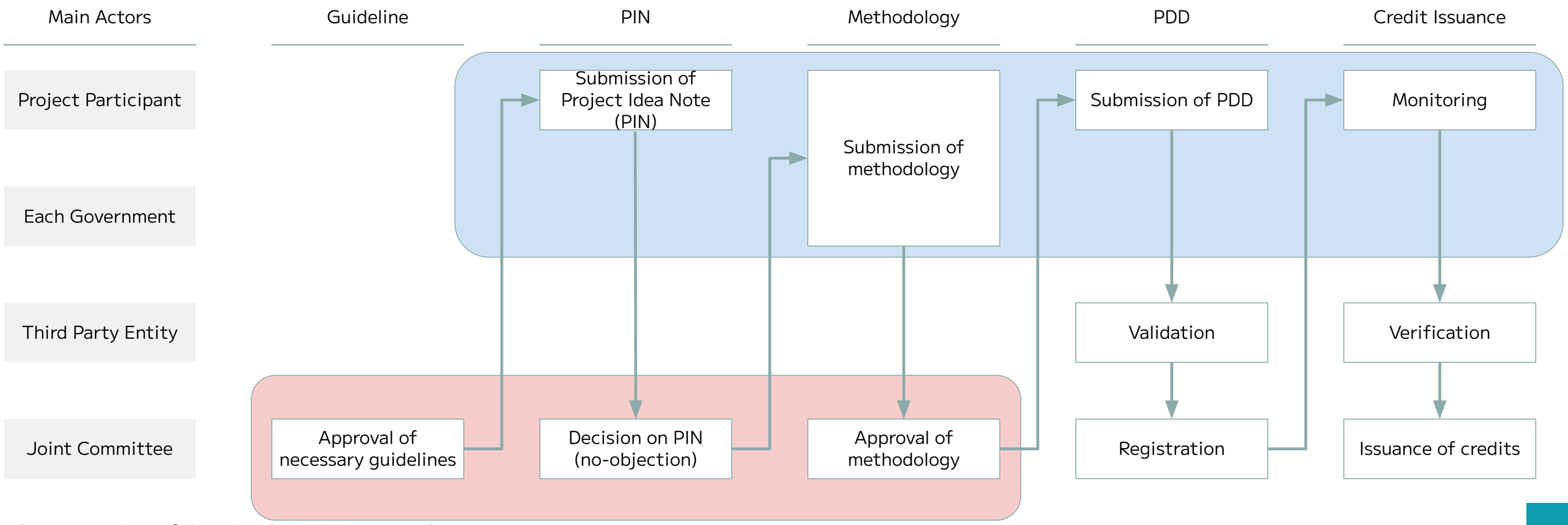
How to unlock NbS in JCM

Regulatonal predictability and **Project development support** are the key to unlock NbS in JCM

Two major bottleneck of NbS in JCM

a. **Uncertainty over guideline and methodology approval timing.**
   - **The private sector can't make decisions without the predictability of the approval of guideline and methodology of NbS**
b. **Lack of specialized support to connect Indonesian developers with Japanese buyers.**
   - **The support from the expert to conduct the project assessment of NbS project is required**

JCM process from guideline approval to credit issuance



Source: sustainacraft based on Global Environment Centre

Why sustainacraft

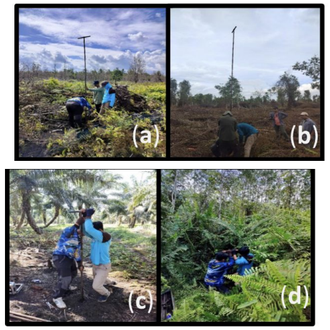
We are providing **Project development support** to unlock NbS in JCM.
On-site research for REDD+ (WRC) JCM project development is ongoing.

Track record related to JCM

- **Strong track record in evaluating JCM projects for private companies**
  - including project analysis, communication with developers, and coordination with host country governments (Indonesia, Vietnam, the Philippines).
- **Adopted for the FY2025 Forestry Agency Commissioned Project**:
  - “On-site Surveys for the Formation of New Projects on REDD+ and Afforestation Utilizing the Joint Crediting Mechanism (JCM)” with INPEX
- CEO is a **board member of Japan’s Ministry of Environment JCM Advisory Board**
- Collaborate with Regrow and ATOA Carbon to **develop Model based AWD ER quantification for JCM**

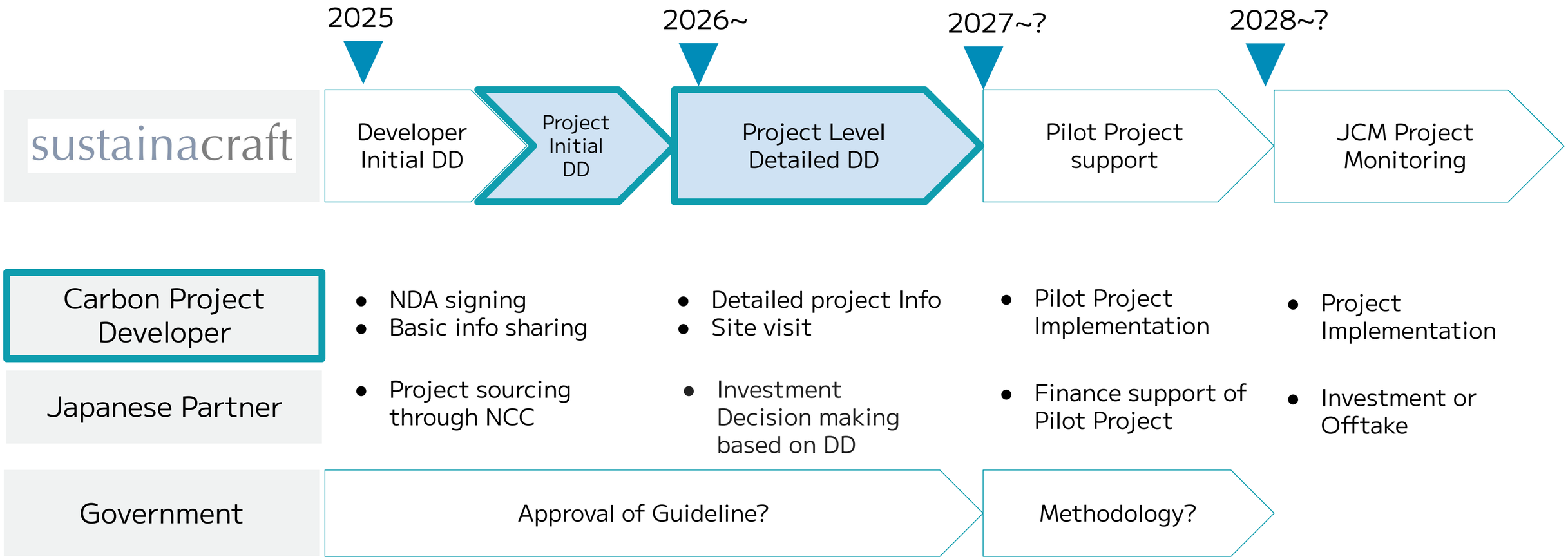
Project Showcase

On-site research for REDD+ (WRC) JCM project development	
Project Area	West Kalimantan
Activity	- REDD+(WRC),ARR
Japanese Partner	INPEX sustainacraft
Indonesian Partner	DASSA Corp
Grant	Forestry Agency of Japan



What we are looking for

Opportunity to connect **Carbon Project Developer in Indonesia** and Japanese partner



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