

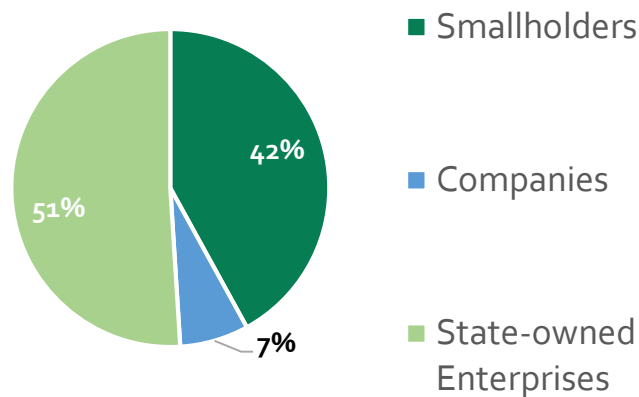


Environmental and Financial Risk Assessment

Smallholder Finance on a Landscape Level

Indonesia and Malaysia are the leading CPO producers but face issues due to environmental risks, overaged trees and suboptimal farming practices

Independent smallholder farmers account for 42% of crude palm oil production



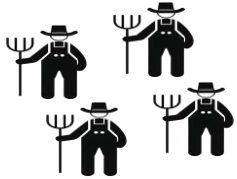
Smallholder farmers struggle with:

- Low productivity due to overaged trees and low quality inputs
- Lack of access to finance due to perceived high risk by financial institutions

Consequences:

- Sub-optimal production
- Further deforestation

Solution: access to investment capital, high-quality inputs, GAP intervention and continuous environmental monitoring



Farmers

- ✓ Geographically dispersed and often disorganized
 - ✓ Small individual loan sizes
 - ✓ Lack of hard loan collateral available
 - ✓ Insufficient savings capacity
-



Financial Sector

- ✓ Lack capability and willingness
 - ✓ High operational costs
 - ✓ Lack of quality financial info and inconsistent data
-



Public Sector

- ✓ Land legality issues
- ✓ Lack of adequate infrastructure
- ✓ Weak enforcement of oil palm zero expansion laws
- ✓ Lack of enabling environment (organization, insurance, loan subsidies and credit guarantee schemes)

Integrated approach needed for smallholder finance at scale: structured process and multiple stakeholders



Technology

Advisory



1. Environmental & Supply Chain Analysis

Landscape Risk Analysis



Supply Chain Analysis & Contracting

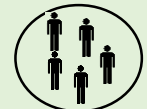


2. Bridging the Gap with Financial Sector

Loan Origination & Credit Scoring



Portfolio Structuring



3. Capacity Building & Scale Up

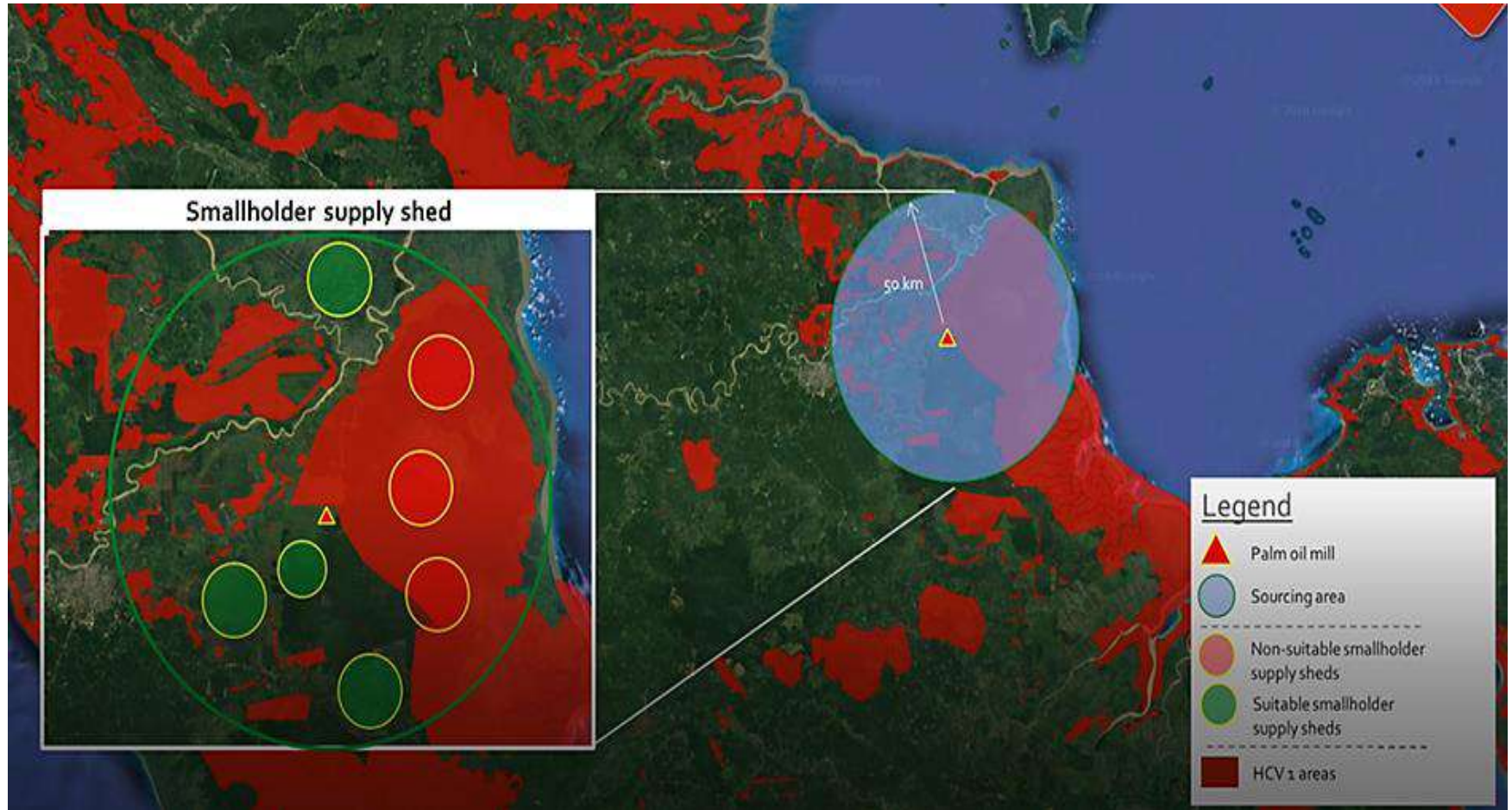
Monitoring



Technical Assistance



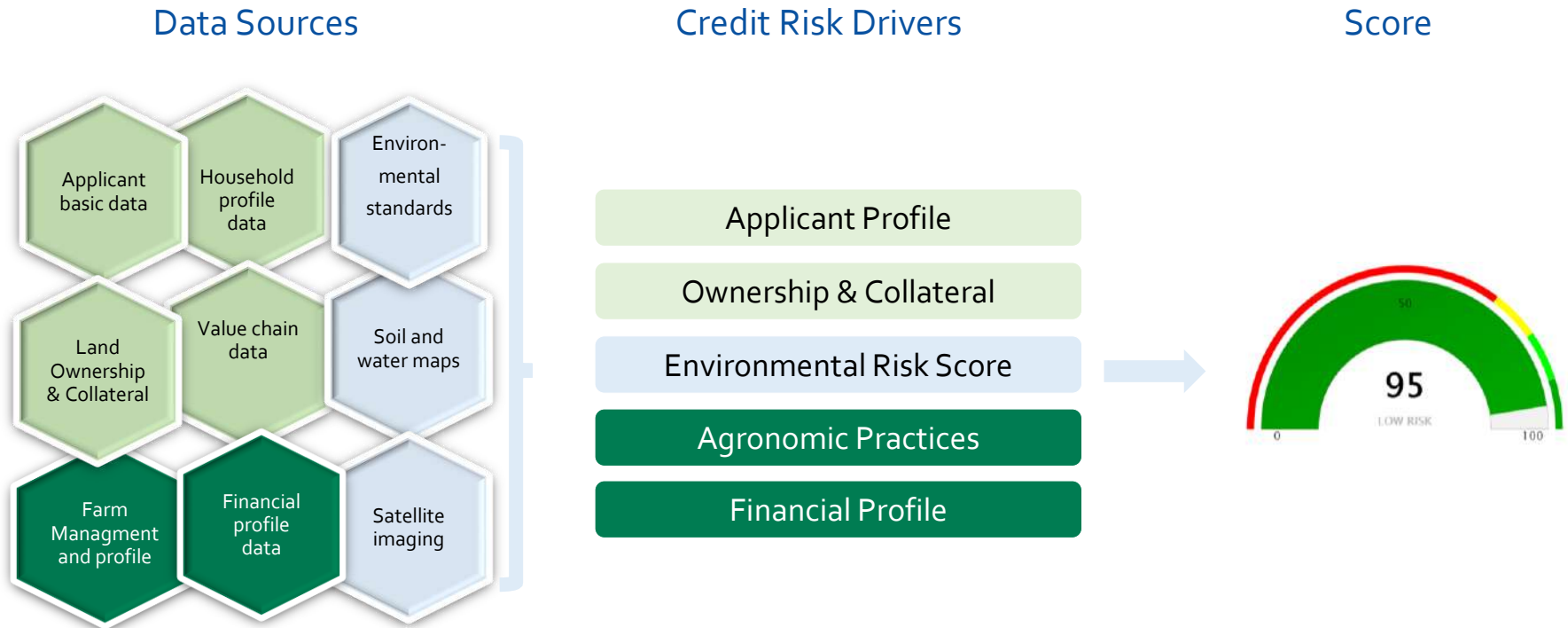
Step 1 – Identification of smallholder supply shed and overlay with land suitability and HCV areas



Mockup Version

Step 2 – Data Collection & Analytics

Farmers are scored on risk drivers to replace the use of historical information, since such information is often not available for the unbanked/underbanked population.



Step 3 – Credit Risk Reports & Portfolio Structuring



Smallholder Report

Kamto

KTP Number: 150508311270
 City: Sido Mukti
 Age: 53
 No. of fields: 4
 Field size (ha): 4.6



Credit Score	C-Neutral
Affordability	Instalment higher than 75% limit for loan repayment
Experience with Borrowing Money	Yes
Requested Credit Amount	IDR 120,000,000
Loan to Value	92%
Land Title (Main Plot)	Sertifikat Hak Milik (SHM)
Collateral Coverage Ratio	179%

Regional Environmental Risk Factor	Low
Overlap with No Go Areas	No
Deforestation	No
Overlap with HCV Areas	No

Obtained Loan	No
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Central Office Report

Cooperative

ID: 123456

Distribution of Credit Scores



Active since	2010
Total Members	250
Assessed Members	52
Of which with Replanting Loan Outstanding	5
Certification	ISCC

Regional Environmental Risk Factor	low
Overlap with No Go Areas	No
Deforestation	No
Located in HCV Areas	No

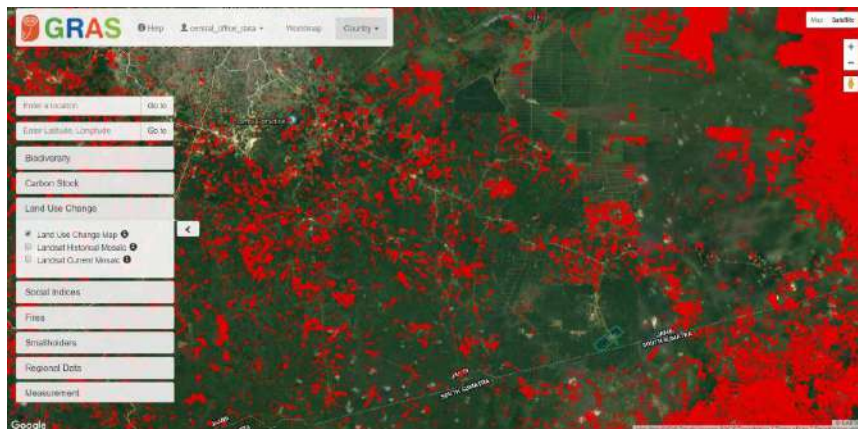
Mockup Version

Step 4 – Visualization

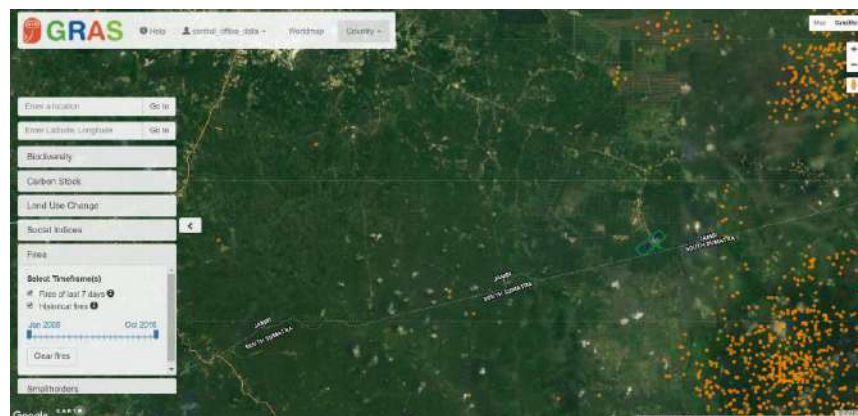


Mockup Version

Step 5 – Monitoring



Identify land use change
Check where and when deforestation occurred



Identify fires
Check where and when fires took place

Mockup Version

Monitoring Report

Kamto

KTP Number: 15050831127****

City: Sido Mukti

Age: 53

Yield: no info

Field size (ha): 4.6



Financial information	
Start date	01/02/2018
End date	01/02/2028
Credit Quality*	Current
Status of plants	According to Schedule

Environmental information	
Regional Environmental Risk Factor at the beginning of loan	Low
Regional Environmental Risk Factor - Current	Low
Deforestation	No
Drought Risk	Medium
Flood Risk	Low

* C = Current; USM = Special Mention; Sub Standard; Doubtful; L = Loss

Next Steps



1. Deliver proof of concept with pilot involving local banks, plantation companies and government
2. Take a jurisdictional approach where governments can support by creating a enabling environment. More specifically:
 - Land Rights Formalization
 - Development of integrated “strategic” subsidies
 - Encourage farmers’ organization/association and uptake of certification
3. Continued development of company-farmer partnership models;

More Information



“Innovative Replanting Financing Models for Oil Palm Smallholder Farmers in Indonesia - Potential for upscaling, improving livelihoods and supporting deforestation-free supply chains”



“Current practices and innovations in smallholder palm oil finance in Indonesia and Malaysia: Long-term financing solutions to promote sustainable supply chains”





Time for an afternoon coffee break!

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