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Sustainable Farming in Tropical Asian Landscapes (SFITAL)

Landscape Design Document

North Luwu

January 2021



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Sustainable Farming in Tropical Asian Landscapes (SFITAL) – Landscape Design Document

This Landscape-specific Design Document (LDD) was developed in a participatory manner to layout the proposed engagement of stakeholders (partners and platforms) in each component of the Sustainable Farming in Tropical Asian Landscapes (SFITAL) Project. This document will guide the implementers to develop the Annual Work Plan and Budgets throughout the project implementation.

The document covers proposed activities, outcomes, and outputs and proposed identified synergies with the activities of partners from the International Fund for Agricultural Development (IFAD) and MARS for each of the four landscapes. In Indonesia, the main partners include the Rainforest Alliance, Earthworm Foundation, Inisiatif Dagang Hijau (IDH), the Rural Empowerment and Agricultural Development Scaling-up Initiative (READ-SI) Project of the Ministry of Agriculture, Ministry of Agriculture, Ministry of Planning, and sub-national governments in Aceh Tamiang, Labuhan Batu and Luwu Utara. The LDD also maps the projects supported by MARS, Rainforest Alliance, Earthworm Foundation, and SFITAL's interventions. This also serves as an application of the Theory of Change (ToC) in the Grand Design Document (GDD) and results in a framework for each targeted landscape. Landscape-specific results frameworks cover the whole range of activities, outputs, outcomes, and objectives set in the GDD's results framework. Furthermore, the LDD illustrates the hierarchy of objectives, outcomes, outputs, and activities for each landscape that inform the partnership between SFITAL and the IFAD/READ SI and MARS-funded programs.

This LDD is the exclusive responsibility of World Agroforestry (ICRAF), IFAD, and MARS partners or under joint responsibility provided that all of these work towards the achievements of common outcomes and objectives as indicated in the landscape-specific ToC.

1

Site Profile



1.1. District demography

North Luwu (Luwu Utara) District, established in 1999, is located in the northern part of South Sulawesi Province bordering with Central and West Sulawesi Provinces. Masamba, its capital, is 324 km from Makassar (the capital of South Sulawesi province) and 107 km from Mamuju (the capital of West Sulawesi). North Luwu landscapes are notable for its undulating terrain, ranging from coastal to mountainous region with the elevation reaching up to 3,016 ⁱ above sea level height⁽⁰⁰³⁾.

North Luwu covers 7,502 km² (750,200 hectare) area and is administratively divided into 15 sub-districts (*kecamatan*) and 174 villages (*desa*). Seko, Rampi, and Masamba Sub-districts are the three largest sub-districts in North Luwu, comprising 28%, 21%, and 14% of the District area¹. About 70.2% of the total land-use in North Luwu in 2015 was categorised as the protected forest area (*Hutan Lindung*)ⁱⁱ. North Luwu is also known as one of the vital cacao and rice producers in South Sulawesi, and more recently oil-palm also gradually expands to the district.

In 2015, the agriculture land-use reached approximately 614,000 hectares (4.4% or 27,709 hectare paddy field and 95.6% or 586,320 hectare dryland agriculture). The dryland agriculture consisted of 83% or about 488,098 hectare smallholders' forest (*Hutan Rakyat*), 10% estate area (*Perkebunan*), 5% farming land (*ladang/tegalan*) and the remaining 2% uncultivated landⁱⁱⁱ.

The population of North Luwu District in 2019 was 312,880 people^{iv}. The total workforce in 2019 was recorded at 151,934 persons (61% male). The dominant labours in 2019 were working in agriculture (54.2% male and 38.9% female), services (28.5% male and 52.2% female) and manufacture (17.3% male and 8.7% female). A major proportion of farmers, about 28,300 persons, cultivate cocoa as their primary commodity^v.

The unemployment rate in 2019 was at 3%, one of the lowest in South Sulawesi Province, in which the female unemployment rate was slightly higher than men (3.5% compared to 2.7%)^{vi}. The poverty rate was gradually decreased from 14.3% in 2017 to 13.7% in 2019. Human Development Index increased slightly from 68.3 in 2017 to 69.4 in 2019. This increment was consistent with the overall HDI of South Sulawesi Province at 70.3% in 2019^{vii}.

¹ Kabupaten Luwu Utara Dalam Angka 2020

1.2. Agricultural and agroforestry profile

Most agricultural commodities are sourced from the estate crops, particularly cacao and, more recently, oil-palm. In 2019, the cacao area in North Luwu reached 39,410 hectares (about 66% of the district's total estate area) producing 26,675-ton cocoa beans. The production rate represents a higher production of 0.66 ton/ha in North Luwu than national cacao productivity in 2018 of about 0.48 ton/ha^{viii}. Oil-palm area of North Luwu in 2019 was 18,361 hectares producing 67,286-ton fresh fruit bunch (FFB), representing 3.6 ton/ha productivity rate compared to the national average of 2.9 ton/ha. Other estate commodities are coconut and coffee, recorded of about 3,160 and 1,721 hectares in 2019. In 2017, North Luwu harvested 40,300 hectare paddy area that produced 156,474 ton rice^{ix}.

Other seasonal commodities cultivated by smallholders in North Luwu include chili, spinach, onion, shallot, cabbage, kale, eggplant, and cucumber. The smallholders also grow perennial trees and fruits, such as coffee, mango, durian, orange, papaya, banana; and herbs, such as ginger, turmeric, and galangga^x.

Agricultural sector significantly contributes to North Luwu GDP, albeit showing a declining trend. Based on market price, in 2019 agriculture contributes to 47% of the total GDP of North Luwu, while before 2019 agriculture consistently contributes to above 50%.^{xi} Cacao is the main commodity that contributes to the North Luwu population's economy, involving smallholders and other actors in its supply chain. Other sectors that also significantly contribute to the district GDP are construction (13%) and services (10%).

1.3. Environmental problem and ecosystem services potentials

Eight main catchments flow through North Luwu administrative area, namely Rongkong, Baliase, Baebunta, Masamba, Lampuawa, Kanjoro, Bone-bone dan Bungadidi. In July 2020, North Luwu experienced a flash flood that took the residents' lives and affected 14,400 people (3,600 households) Baebunta, Sabbang, and Malangke Barat^{xii}. The upstream landscape of North Luwu is experiencing deforestation and degradation from logging, agricultural expansion, and development activities in the riparian area. The massive land-use conversion in the upstream and riparian zone of the major watersheds in North Luwu, such as in Rongkong and Baliase Watershed, was indicated as the main driver of disaster^{xiii}.

2

Cocoa Commodity Profile



2.1. Supply chain and actors involved

Cocoa supply in North Luwu is originated from the smallholders' estate. The cocoa market in North Luwu is dominated by cocoa bean processing and trading companies. Three market channels exist for cocoa farmers in North Luwu, namely the corporate agents, collecting traders in the traditional markets, and local collectors. PT MARS Indonesia (MARS Inc.) and PT Olam Indonesia are the two major companies that buy cocoa beans from farmers and other market channels in North Luwu .

Eight companies hold the Cultivation Rights (HGU) for 90,000 hectares of estate land in North Luwu District, including PTPN XIV, a state-owned estate company. About 66% of the HGU is allocated for the oil-palm estate. Four palm-oil mills are operating in North Luwu as of 2020, namely PT Surya Sawit Sejahtera (SSD), PT Jas Mulia, PT Global, and PT Kasmar. Lack of fresh fruit bunch supply causes these mills to struggle in meeting their production quota currently.

Many national agricultural programs have been targeting North Luwu as one of Indonesia's central cocoa producer districts. For oil-palm, a national program for revitalising smallholders' oil-palm (Peremajaan Sawit Rakyat-PSR) has been implemented in North Luwu since 2018.

Gerakan Nasional Kakao (Gernas Kakao) implemented in North Luwu from 2009-2012 was considered a success. The Gernas stimulated stronger partnership with other development actors, such as the partnership with Cocoa Sustainability Partnership (CSP). North Luwu becomes one of the pilot sites for testing the cacao fertiliser distribution, which was initiated due to the collaboration of CSP and the Ministry of Agriculture in 2019. As a CSP member, North Luwu is one of the local government that applies CSP road map in their cocoa development.

The Ministry of Agriculture is currently coordinating the Rural Empowerment and Agricultural Development Scalling-up Initiative (READ-SI) program in North Luwu starting in 2019 with an investment loan provided by the International Fund for Agricultural Development (IFAD). READ-SI aims to empower rural households by improving their natural resources management and livelihood practices. The national program targets about 3,100 farmers from 18 villages of 6 sub-districts in North Luwu. Within this project, out of the 126 targeted farmers groups, 54 groups are cacao farmers group while the rest groups focus on home-garden, paddy, maize, and horticulture.

The district government has implemented the Kakao Lestari Program by developing a cacao demonstration plot (kebun induk) in Sabbang sub-districts in 2018, and until currently allocated IDR 1.7 billion to support 60 hectares demonstration plot owned by the smallholders. This program is implemented through partnerships with cacao development actors, such as PT MARS, PT OLAM, and SwissContact.

2.2. Governance of sustainable commodities

The governance of cacao development in North Luwu is relatively more established than the oil-palm as the government and non-government actors have been closely collaborated to promote cacao productivity and sustainability in North Luwu.

Two project-endorsed cocoa forums were registered in North Luwu; a cocoa forum for North Luwu under SCPP project from CSP and a group association called ASTAKWA (The Cocoa Community Alliance North Luwu) Furthermore, there are 188 official farmers group (read: gabungan kelompok tani) registered in North Luwu

2.3. Issues and challenges

Based on the review of the official planning documents and other literature, there are several notable agricultural and environmental issues and challenges in North Luwu. The agricultural problems and challenges consist of 1) low agriculture productivity and technology adoption, which is contributed by cacao pest and disease; 2) farmers' limited knowledge, attitude, and skills on agri-production; 3) lack of agri-infrastructures provision (road, irrigation, machinery, and other infrastructure); 4) decreasing cacao farm area due to limited cacao revitalisation and conversion to oil-palm; 5) low added-value and quality of agri-products from the smallholders, particularly for cacao.

The conservation and environmental issues that were raised by stakeholders and found in the official documents of North Luwu are: 1) high deforestation and forest degradation rate, increasing degraded land area, and upstream land-use conversion; 2) upstream watershed degradation, sedimentation, and erosion hotspots in Baliase, Rongkong, and Amang Sang An watersheds; 3) lack of forest monitoring and law enforcement; 4) increasing GHG emission due to land-use conversion, forest fire, and urban transportation; 5) mangrove deforestation in the coastal area, particularly in Malangke, West Malangke, and Bone-Bone; 6) the urgency in utilisation and marketing of non-timber forest products (to avoid further deforestation and forest degradation due to illegal logging).

3

Landscape Characterisation and Existing Programme



3.1. District landscape characterisation

Definition and purpose

A landscape characterization: a way of identifying the variability within a landscape to advise the sampling design in the landscape, based on similarity in spatial information representing production level and provisioning of ecosystem services. Each cluster reflects their different potentials to be designed and supported by interventions to increase (specific) commodity production and to maintain and enhance ecosystem service provisions. The landscape sampling framework will be complemented by:

- A farmer typology describing different types of farmers' practices and land management, knowledge on existing practices, including exposure to good agricultural practices and sustainability, assets, socioeconomic and grass-root institutions.
- A landscape typology describing variations of each landscape unit based on similarity of spatial, biophysical, and socioeconomic characteristics.

The purposes in developing the landscape characterization are:

- a. Understand the general characteristics of the landscape and its variations of clusters.
- b. Present spatially the cluster conditions on (1) land suitability of the commodities expressed in the potential of each cluster in reaching a certain commodity production level; (2) ecosystem services expressed in the potential of each cluster in maintaining or providing the stocks and flows of ecosystem services; (3) Provides a basis to compare, synthesize and extrapolate results and lessons learned from the assessments.
- c. Define broad strategy and intervention on each cluster.
- d. Be further elaborated into target participants and locations of interventions, with more refined units of farmer groups, sub-villages, and villages.

The district landscape characterisation is based on spatial and statistical analysis with the village as the unit of analysis. The characterisation is designed by considering spatially explicit variables as follow:

- Ecosystem-service (ES) related variables (12): % of designated protection forest, %of primary forest, % of flood vulnerable areas, distance to river, distance to burnt area, distance from designated protection forest, distance from the designated conservation area, distance from designated production forest,

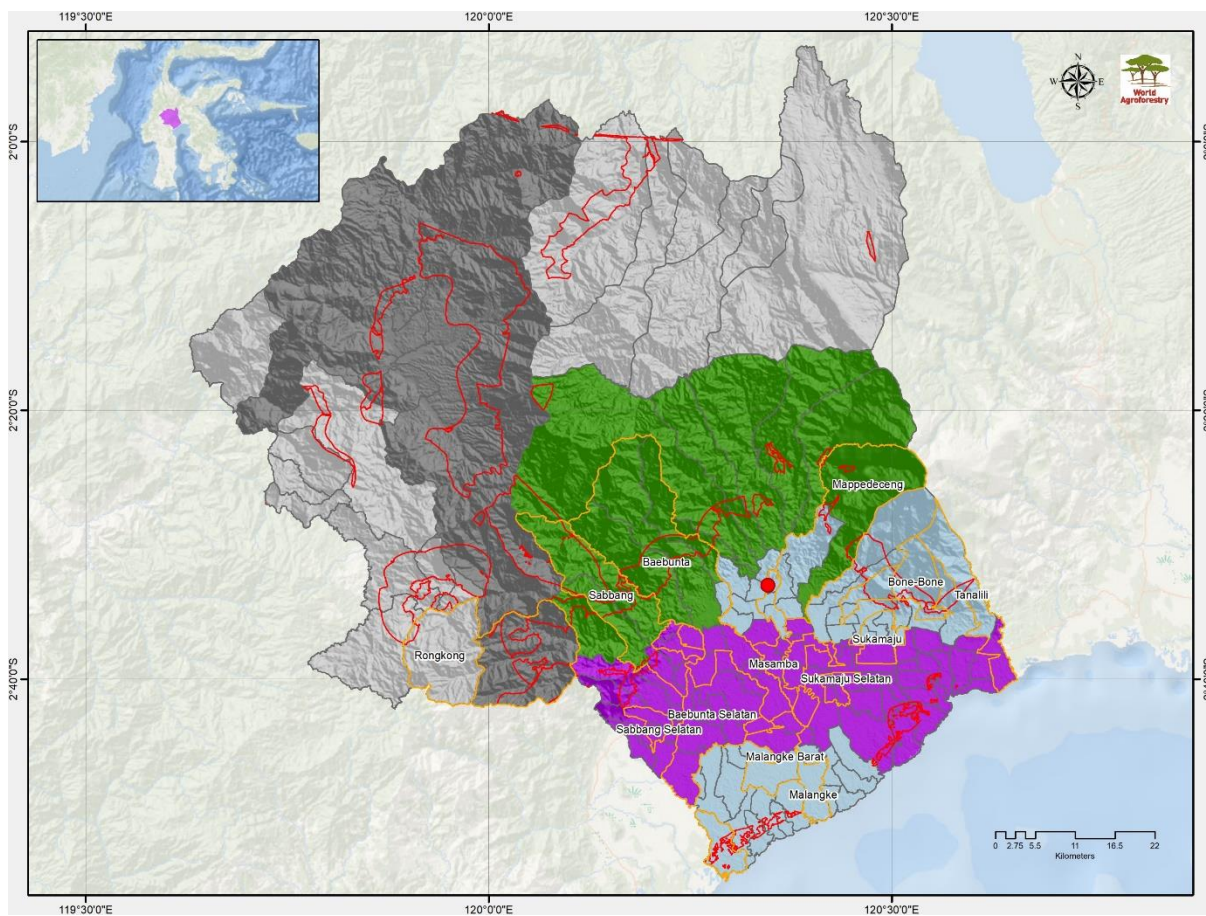
distance from primary forest, distance from secondary forest, distance from degradation area, distance from deforestation area.

- Potential production-related variables (6): % of designated cultivation area, % of suitability area for cacao, distance from the district capital, distance from designated cultivation area, number of populations, distance from unproductive land.

Out of the possible 9 clusters, only 5 types were found in North Luwu and SFITAL aims to work in 3 clusters. These clusters are: (1) Cluster 2 with medium potential production and high ES potential; (2) Cluster 5 with medium potential production and medium ES potential; and (3) Cluster 7 with high potential production and low ES potential. The other 2 clusters, i.e. Cluster 3 (low potential production and high ES potential); and Cluster 6 (low potential production and medium ES potential) were defined as 'no-go' area, i.e. area with low potential production. Decision on intervention villages will be based on household survey and FGD conducted in potential sub-districts in each identified cluster.

Table 1: Information on the SFITAL cluster, potential sub-districts, and its intervention

Cluster	Description	Sub-district in cluster potential for interventions
2	Medium potential production and medium ES potentials.	Baebunta, Mappedeceng, Masamba, Sabbang
3	Low potential production and high ES potentials.	<i>Not relevant</i>
5	Medium potential production and medium ES potential.	Baebunta, Bone-Bone, Malangke, Malangke Barat, Mappedeceng, Masamba, Sukamaju, Tanalili
6	Low potential production and medium ES potential.	<i>Not relevant</i>
7	High potential production and low ES potential.	Baebunta, Baebunta Selatan, Bone-Bone, Malangke, Malangke Barat, Mappedeceng, Masamba, Sabbang, Sabbang Selatan, Sukamaju, Sukamaju Selatan, Tanalili



Legend

- District capital
 - Cacao farmers' capacity building area
 - Indicative area Soc. For.
 - Village boundary
- Cluster**
- 2: Medium potential production and high ES potential
 - 3: Low potential production and high ES potential
 - 5: Medium potential production and medium ES potential
 - 6: Low potential production and medium ES potential
 - 7: High potential production and low ES potential

Figure 1: The landscape characterisation for North Luwu

3.2. Programmes of MARS and partners

PT MARS has initiated several programs to improve cacao productivity and sustainability in North Luwu through a technology transfer approach. Keys to this approach are the Cocoa Village Clinics (CVCs) and the Cocoa Development Centers (CDCs). Cocoa Development Centres (CDCs) are cocoa demonstration sites and capacity building hubs funded and managed by MARS with additional support from partners. Five CDCs have been established in North Luwu as of 2020, each of them works with several CVCs.

A Cocoa Doctor runs a Cocoa Village Clinic (CVC) – a MARS trained local farmer who represents their village, has a farm with good accessibility, is entrepreneurial, and is motivated to apply and teach other farmers about the good agricultural practices (GAP) in cacao farming^{xiv}. CDC and CVC initiatives focus on the productivity and quality elements of cacao farming rather than the social and environmental aspects of cacao sustainability. In addition to CDC and CVCs, PT MARS is currently developing empowerment initiatives targeting youth and women in North Luwu^{xv}.

The North Luwu District have also run several sustainable cocoa programmes, among them are '*Kakao Lestari*' Programme with its activity Dryland Agriculture Development or *Pengembangan Pertanian Lahan Kering (PPLK)* that focused on improving the productivity and quality of cacao. *Desa Mandiri Benih* or Seeds Self-Reliance Village that promote the development of cacao nurseries in villages to supply its farmers.

4

SFITAL Interventions



The table below shows the relevance of our SFITAL landscape design strategy with the SFITAL Grant Design Document (GDD) sub-component, the relevance of the MARS program, and the relevance of district and national documents and programmes.

Table 2: Relevance of landscape design strategy with other programmes

LDD strategy	GDD output	Relevance to MARS program	Relevance to district document*	Relevance to national document and programme*
A1: Critical sustainability P&C	1.1; 1.2; 1.3	Capacity building of government agencies and partner	District Mid-term Development Plan (RPJMD) 2016-2021 Mission 4 and 5	GRASIDA programme (3)
B1: Certification scheme and farmers' corporation	2.1; 2.2; 2.3; 2.4	(1) Improve farmers GAP and BMP via targeted training enabling farmers to be certified ready	RPJMD 2016-2021 Mission 4 and 5	STRANAS Strategy (c) 2 and (c) 3 GRASIDA programme
B2. Simple agroforestry and piloting SMSE	2.1; 2.2; 2.4	(2) Support traceability program		
B3: Agroforestry business models and incentive schemes for ES provisioning	2.1; 2.2; 2.4	(3) Supplementary livelihood pilots (4) Support agroforestry programme		
C1: Multi-stakeholder platform's roles and functions	3.3; 3.4	Supporting landscape approach to achieve sustainability of cacao supply chain	RPJMD 2016-2021 Mission 4 and 5	STRANAS Strategy (c)
C2: road map, plan, and financing	3.2; 3.4		RPJMD 2016-2021 Mission 4; and 5	
			RTRW 2011-2031 Article 4 (c); (d); (f); and (g)	
C3: Digital system for sustainability M&E	3.3		RPJMD 2016-2021 Mission 5	STRANAS Strategy (c) GRASIDA Programme 5
			RTRW 2011-2031 Article 4 (d) and (f)	

***Note**

- North Luwu's District Mid-term Development Plan 2016-2021(RPJMD 2016-2021)
 - Mission 4: To achieve economic independence, *with the agricultural sector as a priority*
 - Mission 5: To achieve environmental sustainability
- NL District Regulation 02/2011 on District Spatial Plan 2011-2031 (RTRW 2011-2031)
Article 4 on district_spatial planning regulations:
 - (c) protection and preservation of environmental carrying capacity
 - (d) prevention of the negative impact of human activities;
 - (f) controlling of cultivation activities to not exceed the supporting and environmental carrying capacity
 - (d) development and improvement of regional function to improve the district's economy
- The Ministry of Agriculture Strategic Plan (Rencana Strategis Kementerian Pertanian/STRANAS) 2020-2024
 - Strategy
 - (c) Strategies in maintaining the sustainability of agricultural resources and the availability of agricultural infrastructure and facilities
 - 2. Revitalisation of financing for farmers and their institutions
 - 3. Increase the availability and monitor the distribution of seeds/seedlings, fertilisers and pesticides
 - Priority projects/programs
 - a. Farmers' corporate
 - c. Family farming
- The Directorate of Plantation programme - GRASIDA (Increasing production, added value and competitiveness) in 7 priority commodities (coffee, cacao, coconut, cashew, pepper, nutmeg and vanilla) through (1) superior seedlings, (ii) increasing production efficiency and products quality, (3) increasing the added value of plantation products, competitiveness and exported products, (4) mechanisation and digitisation of plantations through use of information technology, (5) vocational education and training to strengthened farmers' capacity; 6) regeneration of farmers.

4.1. Strategy A: Leveraging enabling conditions for sustainable cocoa practices and sourcing at the jurisdictional level

Context: Environmental and social management systems/standards that sufficiently capture the jurisdiction's sustainability context (i.e. most critical principle and criteria of sustainable commodity and landscape) are key to adoption by small-scale cocoa producers, and consequently key to accessibility of small-scale cocoa producers to the global market. The challenge of the existing ESMS and standards is that they are mostly designed to encompass broader ranges of contexts. Different planning documents and commitments towards sustainability usually define and require specific ESMS and standards that may either overlap or enrich each other. To be more efficient and cost-effective, the local government needs information on critical principles and criteria for meeting various national-level commitments that might align with global demand.

For Luwu Utara, the primary documents we analysed for sustainability are the Sustainable Agriculture Network (SAN) and the Ministerial Decree No. 48/Permentan/OT.140/4/2014 on the Good Agriculture Practices on Cocoa.

A.1. Harmonising existing public and private ESMS, and identifying critical principle, criteria and indicator (PCI) for sustainable cocoa sourcing at the jurisdictional level

Purpose:	To support the district government in harmonising sustainability PCI from various relevant documents for their conservation and development planning (i.e. RPJMD, district spatial plan) – Joint activity with C.1.
Activity – linked to the GDD output	<p>A.1.1. Raise awareness on conservation and development issues, and how to translate these issues into planning, action, and monitoring & evaluation systems</p> <p>A.1.2. Analyse collectively different sustainability principle, criteria and indicators from various document.</p> <p>A.1.3. Develop and agree on a set of critical PCI locally appropriate and contextual to the district.</p>
Partners	Bappeda Luwu Utara
Means of verification	<p>A.1.1. Local government and members of the multi-stakeholder platform voluntarily and actively attend and participate in the capacity-strengthening events.</p> <p>A.1.2. The stakeholders contribute to the analysis in a participatory way.</p> <p>A.1.3. Agreements on as a set of critical PCI are achieved and documented.</p>
Timeline	Y2

4.2. Strategy B: Ensuring smallholders benefits from the sustainable cocoa farming system, including the agroforestry one.

The sub-strategy under Strategy B is designed based on the socio-ecological context and characterisation developed for the district using the spatial variables based on existing publicly available maps². The field interventions can combine several sub-strategies that will be refined after the consultations with local stakeholders (communities and district government). The cacao farms managed in forest areas and without legal permits are considered 'no-go area' and therefore excluded from any interventions.

B.1 Equipping smallholders with medium to high cocoa productivity with knowledge and capacity to perform sustainable practices and be certified-ready to advance their bargaining positions in the value chain - Potential interventions for Cluster 5 and 7

Context: Cocoa is a major commodity in North Luwu, contributing to 22% of GDP. The current district government is firmly committed to increase the production rate and improve the quality of cacao to meet the high demand for sustainable cocoa from the global market. North Luwu farmers have received relatively comprehensive programmes on cacao development from the national and local government and the private sectors. For active and aware farmers, they are ready for the next step in entering the global market.

Purpose:	To improve the medium-to-high productivity smallholders' capacity to adopt environmentally and socially responsible practices and create opportunities to advance their business models.
Activity	<p>B.1.1. Strengthen the 'good agriculture practices' in collaboration with existing NGOs and government programmes.</p> <p>B.1.2. Facilitate smallholder to access public and private funding for enhancing value chains.</p> <p>B.1.3. Support corporate farmer models and access to better price and markets, particularly markets for sustainable products.</p> <p>B.1.4. Raise farmers awareness on the efficacy of traceability and plot-level M&E systems for improving productivity and better access to market.</p>
Partners	Bappeda North Luwu, Bappenas, Cooperatives.
Means of verification	<p>B.1.1. Farmers voluntarily and actively attend and participate in the capacity-strengthening events that jointly convene with NGOs and district offices.</p> <p>B.1.2. Farmers able to access and receive funding that enhances value chain.</p> <p>B.1.3. Design of business models are available and piloted at the village level.</p> <p>B.1.4. Farmers are ready to comply with existing traceability systems.</p>
Timeline	Y2 – Y4

² The maps include village boundary (BPS, 2014), land cover map (Ministry of Environment and Forestry, 2019), cacao suitability map (Agriculture Research and Development, 2017), State and function of forest areas (MoEF, 2014).

B.2 Supporting smallholders' cocoa in low ecosystem services provisioning area to focus on building agroforestry-based business models targeting the involvement of women and youth entrepreneurship. - Potential interventions for Cluster 7

Context: In the low potential ecosystem service provisioning area, it is crucial to maintain the farmers' income when their agricultural production capacity is high but urgently needs to increase the ecosystem service provisions. Simple agroforestry systems, combined with efforts to add revenue through the development of micro-small-medium-enterprises, would balance the objective of both enhancing ecosystem services provisioning and farmers' livelihood.

Purpose	To improve the capacity of smallholders in low ES to adopt good and sustainable agricultural practices and create opportunities to enhance and maintain ES condition at plot level, as well as to improve farmers livelihood.
Activity	B.2.1. Strengthen the 'good agriculture practices' in collaboration with existing NGOs and government programmes. B.2.2. Facilitate smallholder to access good quality inputs that meet the sustainable standard, including seedlings. B.2.3. Support the development of MSME for youth and women programme.
Partners	Bappeda North Luwu, CSP.
Means of verification	B.2.1. Farmers voluntarily and actively attend and participate in the capacity-strengthening events that jointly convene with NGOs and district offices. B.2.2 Farmers able to access and receive funding for improving value chains. B.2.3 Design of MSME is available, if not bankable, and piloted at the village level.
Timeline	Y2 – Y4

B.3. Facilitating smallholders' cocoa managing farming systems in high ecosystem services provisioning area to diversify their farming systems towards agroforestry practices and building agroforestry-based business models targeting regenerative agriculture models - *Potential interventions for Cluster 2 and 5*

Context: The district government, in its medium-term plan, emphasises maintaining ecosystem functions, mainly the watershed functions. Given the 2019 disaster of flash-flood and landslides, ensuring that agricultural farming systems do not contribute to environmental degradation and support, maintaining, and improving ecosystem functions is crucial. Agroforestry cacao systems have been proved multifunctional for both income increment and ecosystem service provisions.

Purpose:	To introduce agroforestry cacao practices that provide additional income, enhance ecosystem services, and pilot incentive schemes for performance-based conservation agriculture through public and private funds.
Activity	<p>B.3.1. Identify multipurpose trees suitable in cacao agroforestry models based on local communities preferences, marketability and district recommendation/priority.</p> <p>B.3.2. Strengthen smallholder capacities on designing cacao agroforestry systems and perform 'good agricultural practices' of cacao agroforestry.</p> <p>B.3.3. Pilot performance-based conservation agriculture models and its M&E systems at the plot level.</p> <p>B.3.4. Facilitate and strengthen grass-root institutions for better landscape governance.</p>
Partners	Agriculture extension office, District plantation Office, Agricultural school
Means of verification	<p>B.3.1. Farmers and enablers (relevant district officers, NGOs, rural advisory) are aware of an array of options of multipurpose trees suitable in agroforestry cacao.</p> <p>B.3.2. Agroforestry cacao systems are established voluntarily by participating smallholders and farmers and enablers (relevant district officers, NGOs, rural advisory) have the technical capacity to design and manage agroforestry cacao systems.</p> <p>B.3.3. A performance-based conservation agriculture model is operational with the ecosystem service beneficiary is ready to provide incentives for the participating farmers.</p> <p>B.2.3. Grass-root institutions involved in the piloting of the cacao agroforestry systems and performance-based conservation agriculture models.</p>
Timeline	Y2 – Y5

4.3. Strategy C: Enhancing the local government's governance capacity in implementing the jurisdictional

Context: The district government, in its RPJMD (medium-term regional development plan) strives for economic independence and environmental sustainability. Agriculture, in particular plantation/tree commodities, is an important contributing sector to GDP, therefore developing district strategy for green development, paying attention to cacao and other plantation commodities is a top priority. Having a solid multistakeholder platform will ensure the inclusive process of green commodity development.

C.1. Synergising the multi-stakeholder platform's roles and functions to support the implementation of SFITAL interventions and upscaling.

Purpose	To establish or revive legally appointed district multi-stakeholder platforms, including their working groups, aiming at updated, well-informed stakeholders can mainstream and upscale the innovations of SFITAL.
Activity	<p>C.1.1. Organise awareness-raising events/training for the concepts and practices of jurisdictional approach to cacao development planning, ecological fiscal transfers, payment for ecosystem services, sustainable sourcing, and other topics as required by the district stakeholders.</p> <p>C.1.2. Conduct regular meetings to update the progress of the SFITAL.</p> <p>C.1.3. Discuss and result in a road map and work plans for mainstreaming and upscaling SFITAL innovations.</p>
Partners	Bappeda North Luwu, relevant district offices, local NGOs.
Means of verification	<p>C.1.1. The district stakeholders have sufficient conceptual and technical knowledge on landscape and jurisdictions approach, including assorted tools and instruments, and relevant regulations for implementing such strategies.</p> <p>C.1.2. The relevant district stakeholders are aware of the progress of SFITAL, acknowledge and are interested in learning and applying the innovations brought by the project.</p> <p>C.1.3. The district stakeholders – both public and private ones – commit to mainstream and upscale SFITAL innovations.</p>
Timeline	Y2 – Y5

C.2. Supporting in developing a sustainable and inclusive jurisdictional road map for primary plantation commodity development, in particular cacao development.

Purpose	To equip the district with an integrated, inclusive and evidence-based road map for commodity development and conservation financing towards sustainable cacao using landscape and jurisdictional approaches.
Activity	C.2.1. Consult the district government officers and agencies intensively on the driver, pressure, state, impact and response in cacao landscapes. C.2.2. Jointly determine scenarios on cacao development. C.2.3. Develop a sustainable and inclusive jurisdictional road map for cacao development. C.2.4. Support the district stakeholders in applying ecological fiscal transfers using the agreed landscape indicators for sustainable development.
Partners	Bappeda North Luwu
Means of verification	C.2.1. The district stakeholders can identify problems and root-causes of unsustainable practices, analyse and design credible solutions. C.2.2. The district stakeholders agree on development and ecological scenarios towards sustainable cacao based on evidence and information from the ground. C.2.3. A sustainable and inclusive jurisdictional road map and plan is formally legalised, becomes a benchmark and guides the district development plans. C.2.4. The North Luwu district becomes one of the national pioneers in designing and implementing ecological fiscal transfers schemes using relevant landscape indicators for sustainable development.
Timeline	Y2 – Y4

C.3. Coordinating in establishing a digital M&E system for critical socio-ecological indicators (linked to Strategy A).

Purpose	To equip the district with a versatile tool to plan, monitor, evaluate and report critical socio-ecological indicators for ensuring jurisdictional sustainability sourcing areas.
Activity	C.3.1. Develop the critical indicators to be translated into the digital tool in close consultation with the district stakeholders, and on par with traceability and M&E systems developed in Strategy 2. C.3.2. Test and refine the digital tool to ensure long-term practicalities in the district. C.3.3. Conduct a series of training sessions on the final version of the product.
Implementing partners	Bappeda Luwu Utara, relevant district government, Koltiva (to be confirmed).
Means of verification	C.3.1. The district stakeholders jointly design and agree on indicators as part of the digital tool for M&E sustainable palm oil. C.3.2. The digital tool is acknowledged and applied for enhancing the M&E sustainability performance of the district. C.3.3. The relevant stakeholders responsible for database and M&E systems can operate, manage, maintain, and update the tool after the SFITAL completes.
Timeline	Y3-Y4

5

Next Step Towards Implementation



The landscape characterisation developed in North Luwu (Step 1, Appendix 2) is the basis for developing specific interventions at village level. Several steps and analysis are still required to determine intervention options that are contextual to the issues and condition of the villages.

The landscape characterisation provides the sampling frame for household survey and FGDs [Step 2]. The FGDs and household survey will be carried out in each cluster identified for interventions with the aim to obtain socio-economic features of farmers as the targeted beneficiaries, including information on prior exposure to knowledge and current cacao farming practices. Hence, SFITAL can identify the intervention options that cater the need and the preference of farmers. Appendix 3 provides description of the sampling framework carried out in North Luwu.

Once the potential options of interventions are identified for each targeted villages, the next step is to inform and discuss with the stakeholders at district and village level. At the district level the discussion will be on potential synergy with existing programme and the relevancy with the overall direction of cacao development in each clusters. At village level, the main intention is to raise the awareness of SFITAL programme to the village offices and farmers and gaining their feedback if the intervention options match the farmers' interest, need and capacity.

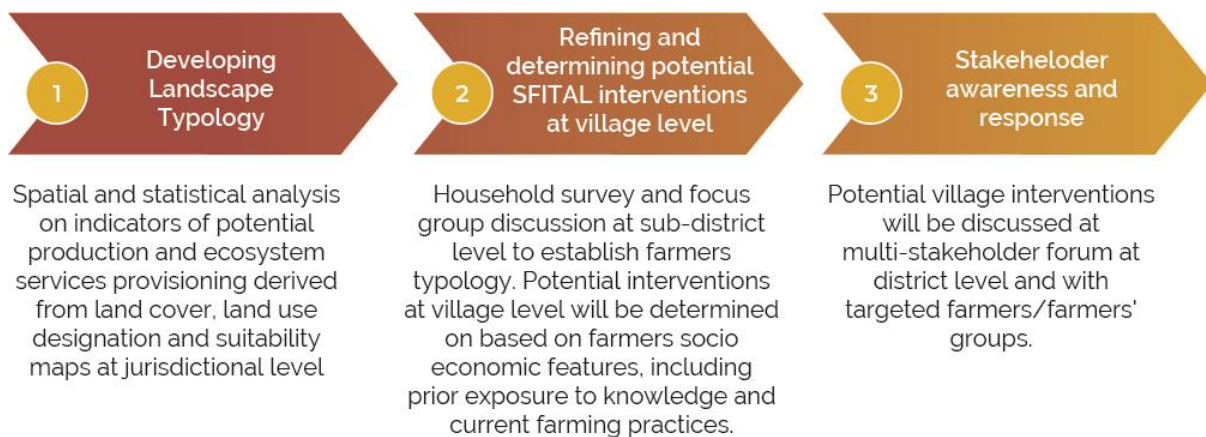


Figure 2. Steps in developing interventions at village level.

Appendix 1:

SFITAL Theory of Change

Goal:

The emergence of small-scale producers who are both entrepreneurs and environmental stewards benefiting from well-functioning agri-service providers and enabling environments for sustainable commodity value chains in Asia.

Objectives:

1. Environmental and social management systems and/or standards leveraged and properly framed to meet sustainability and strategic positioning in the global market
2. Increased participation of small-scale producers in value chains based on sustainably sourced-raw materials in the targeted landscape
3. Scaling-up of sustainable raw materials value chains at landscape level through strengthening enabling environments by inclusive involvement of local governments and stakeholders
4. Integrated and effective knowledge and project management

Strategic approaches	Activity	Theory of Change
Component 1. Leveraging environmental and social management systems/standards for sustainable, inclusive, and broad-scale transformations of smallholder-based commodity value-chains.		
1.1. Harmonising existing standards and identifying, critical sustainable principle and criteria for commodity and its jurisdictional sourcing landscape.	1.1. Identify and analyse the role of existing environmental and social management systems and/or standards to upgrade and position commodity value chains on global markets.	Environmental and social management systems/standards that sufficiently capture the sustainability context of jurisdiction (i.e. most critical principle and criteria of sustainable commodity and landscape) are key to adoption by small-scale producers of cacao. The challenge of the existing ESMS and standards is that they are mostly designed to encompass broader ranges of contexts. Thus, Component 1 ensures and recommends the optimal adoptions of such ESMS and standards that are feasible and operational at the plot, landscape and jurisdiction levels. Identifying the proper design for such standards is crucial for SFITAL in developing a strategy for establishing pilots of sustainable farms (Component 2) and developing road map of sustainable cacao development and sourcing in the targeted landscape (Component 3). The analysis of existing ESMS and standards guide the inclusive jurisdictional approach to sustainable cacao development and sourcing.
	1.2. Conduct gap analysis of current value-chain governance arrangements, policy, and regulatory environments at regional, national and local levels.	

Strategic approaches	Activity	Theory of Change
1.2. Raising awareness, advocating and getting active supports for its adoption and implementation at targeted jurisdictions, and recognition at broader levels.	1.3. Support in developing and further facilitating multi-stakeholder sustainability platforms to develop road maps and strategies.	Awareness raising and advocacy of SFITAL program, its goals and findings, to key stakeholders (private sectors, government) at the regional, national and provincial levels can persuade stakeholders to gear their activities to build enabling condition for small scale producers to adopt and implement sustainability standards and supporting sustainable smallholder cacao value chains.
1.3 Capacity strengthening on SFITAL at national and regional level	1.4. Provide technical assistance to regional cooperation bodies, national and sub-national governments.	Asian-wide and national partners, both public and private sectors, support the goal of SFITAL by creating enabling conditions and later mainstreaming the results of SFITAL to their programme and policy. Thus, the first step is to raise their awareness on SFITAL programme, and regularly update them with the progress and policy recommendations of SFITAL. The next step, when these potential partners are willing to mainstream and adopt the SFITAL approach, the SFITAL team provide technical assistance through joint workshops and other capacity building meetings.
Component 2. Pilot and evaluate sustainable technologies, environmental and social management systems and standards, and traceability systems in targeted landscapes.		
2.1 Capacity needs assessment.	Stock-take and evaluate production management and technologies, farmers groups' capacity and local governance to adopt and monitor sustainable practices along value-chains in selected sites within the targeted landscapes.	To adopt sustainability standards, small-scale producers not must only must have the knowledge and, technology on good agriculture practises, but also entitle for further supports and incentives. Supports and incentive are essential as the adoption of sustainability standards is beyond their business-as-usual farming practices. Thus, Component 2 targets two layers of interventions. Firstly, related to good agricultural practices (knowledge and technology) focusing on agroforestry practices for cacao, the SFITAL in collaboration with MARS partners conduct capacity strengthening on sustainable cacao farming practices and management. Secondly, to develop the incentive systems leading to continuous sustainable practices, people-public-private-partnership (4P) can support farmers for better access to finance and stable market for the main raw materials (cocoa) and agroforestry products. Moreover, ecosystem service provisions, as the co-benefit from applying GAP, can become another form of additional incentive for smallholders when a payment for ES mechanism is put in place.
2.2 Awareness raising, capacity strengthening and piloting cocoa systems that implement sustainability standard and establish people-public-private partnerships/P4.	Facilitate and build capacity of smallholders to pilot and prepare business plans compliant with agreed sustainability systems and/or standards, and support in access to financing.	
2.3 Development of sustainability monitoring and evaluation systems practiced by small scale producers.	<p>Test a traceability system that meets the requirements of sustainability standard verification and develop and establish participatory monitoring systems coordinated by farmers' groups.</p> <p>Pilot and measure impact compliant with agreed sustainability management systems and/or standards.</p>	<p>An integrated M&E using digital platform is designed to verify the sources of the commodity (geographical, group identity) and capture the existing relevant supply chains, from small-scale producers to processing units. Further, the digital platform can be enriched by additional information, such as farming practices, conservation agriculture practices as the proxy for the status of ecosystem services, and profitability profiles at each stage of production.</p> <p>Monitoring and evaluation systems on the implementation of sustainable practices by small scale producers is crucial in the development of P4 and PES scheme as proof of environmental stewardship activities and as the means of verification to encourage the involvement of public and private sectors.</p>

Strategic approaches	Activity	Theory of Change
Component 3. Develop road maps to scale-up and mainstream inclusive, sustainable, and transparent smallholder commodity chains.		
3.1 Inclusive, integrated and informed stakeholder engagement.	Collect participatory data to feed into the development of appropriate land-use scenarios that match local contexts in the targeted landscapes.	To attain sustainability interventions at scale, investors, both agribusiness and impact ones, need a set of information that guide them where to invest and what type of green business portfolios are available. Sub-national governments are the most appropriate stakeholders to facilitate the presence of such information. Road maps for sustainable cacao development and sourcing that are resulted from the evidence-based, inclusive and integrated trade-offs analysis of land suitability, ES provision, and development strategy, become the foundations for sub-national government to provide information for upscaling green investment. Component 3 supports and facilitates the sub-national governments (i.e. district and municipality levels) to develop such road maps. The road map also encompasses information on how to design, develop and implement co-investment for ecosystem services. The main focus is to identify and pilot the payment for ecosystem services at landscape levels. However, the opportunity to design and implement it for inter-jurisdiction by applying for ecological fiscal transfer and designing landscape certification schemes are explored.
	Develop land-use suitability maps and scenarios for targeted commodities and landscapes.	
3.2 Piloting sustainable commodity sourcing management systems managed by the local government.	Develop, test, and evaluate sustainable landscape-level sourcing management systems.	Local stakeholders (government, private sector, farmers, civil society) willingness to support smallholder commodity chain is crucial for the success of sustainable smallholder commodity chains. Awareness raising combined with inclusive technical capacity strengthening can inspire local stakeholders to achieve through green smallholding cacao and oil-palm production. Local governments can develop policies and enabling factors through public funding to 1) facilitate smallholders to comply with sustainability standards; 2) improve land governance; and 3) maintain ecosystem services. The private sector/off-takers can commit to enhance incentives for small-scale producers and jurisdictions for the green commodities that they buy. The technical capacity development of local governments aim to build inclusive local stakeholder platforms at district levels that are facilitated to 1) carry out scenario development based on the implementation of sustainability standards of cacao, particularly for smallholders, that are specific in addressing local contexts and variability); 2) conduct negotiations on interventions; 3) formulate policies and/or plans; and 4) monitor and evaluate.
3.3 Awareness raising, capacity strengthening and development of sustainable and inclusive road map for sustainable cacao development and sourcing.	Conduct intervention planning and partnership building in developing and implementing sustainable and inclusive plans for targeted landscapes.	
3.4 Establishing PES scheme managed at jurisdictional level developed from P4	Pilot co-investment for ecosystem services and reward mechanisms to incentivise compliance at scale.	
Component 4. Coordinate global partnerships and knowledge management for awareness, upscaling and replication.		
Implement Monitoring and Evaluation (M&E) systems.	4.1. Manage and monitor project progress in a timely and effective manner.	Effective M&E systems enable SFITAL program to progress effectively, ensuring SFITAL teams to work according to the agreed work plan and agreed commitment with partners. The data collected will also provide the information needed for impact study.
	4.2. Conduct and disseminate impact studies on the drivers of sustainable value-chain transformation.	

Strategic approaches	Activity	Theory of Change
Implement the national communication strategy.	4.3. Establish a knowledge management system to effectively capture, distil and disseminate the knowledge generated from the project to target audiences and for internal learning.	Good communication strategy allows an effective dissemination process of SFITAL findings to small-scale producers, local and national government institutions and the private sectors. Consequently, enhancing the commitment of all parties to play their role in establishing sustainable commodity value chain that address conservation of landscape, sustainable livelihoods, and development at the targeted landscape.

Appendix 2: Methods in developing landscape characterisation

The aim of the landscape characterization analysis was to classified North Luwu landscape into clusters that represent two main indicators: potential production and potential ecosystems services provisioning, each in 3 levels: high, medium and low. Number of clusters that can be generated from the landscape characterization will depending on the variations occur in the landscape. The maximum number of clusters are 9 clusters, from combination of 3 levels of potential production and 3 levels of potential Ecosystems Services.

		Potential Production		
		High	Medium	Low
Potential Ecosystems Services Provisioning	High	1	2	3
	Medium	4	5	6
	Low	7	8	9

Figure 3. The possible 9 distinct clusters based on combination of levels potential Ecosystems Services and potential production

The landscape characterization was based on village characteristics, as the smallest unit of analysis. The information from Village Potential Data of BPS 2019 were used as the village boundary. The analysis was based on the following steps:

Step 1. Selecting relevant spatially-explicit variables from the available information. For the case of North Luwu, from the available datasets/maps 42 variables were identified that potentially characterise cacao production and the provisioning of ecosystems services. The distribution of variation of the 42 variables were used to select variables that can significantly grouped the landscape into different levels of the potential provisioning of ecosystems services and cacao production. Based on the analysis, 18 significant variables were identified that can be further used in the cluster analysis (Table 3).

Step 2. Cluster analysis using K-mean methods resulted in 5 clusters (Figure 1). In North Luwu, only 5 distinct clusters were identified. The three (3) significant variables that differentiate the clusters are (i) percentage of suitable areas for cacao - representing potential production; (ii) percentage of forest cover and (iii) distance to flood disaster areas – as indicators of ecosystem services provisioning areas.

The villages in the identified clusters in North Luwu landscape can be characterised into 3 levels of potential production, and ecosystem services (Table 4). The characteristics of villages with the potential production of (i) high: the percentage of suitable area vel is in the range of 65-100%, (ii) medium: 11-64% suitable areas; and (iii) low: 0-10% of total village area are suitable for cacao. Similarly, the characteristics of villages with the potential ecosystem services provisioning of (i) high: the percentage of forested area is 85% , with close proximity to state forest land; (ii) medium: 25-85% forested area with medium proximity to state forest land; and (iii) low: 0-24% of forested area, with far distance to state forest land.

Table 3. The 18 relevant spatially-explicit variables used in the landscape characterization analysis of North Luwu

No.	Variable (/village)	Source of data	Assumption
1	% of protected forest/village	Ministry of Environment and Forestry (MoEF), state forest function in 2014;	The higher percentage of protected forest, higher ES potential.
2	%of primary forest/village	Village boundary BPS 2019	The higher percentage of primary forest, higher ES potential.
3	Distance from protected forest		The closer to protected forest, higher ES potential.
4	Distance from conservation area		The closer to conservation area, higher ES biodiversity potential.
5	Distance from production forest		The closer to forested area, higher ES potential.
6	% of flood vulnerable areas/village	BNPB 2018 (INARISK)	The higher percentage of flood vulnerable areas, lower ES water.
7	Distance to river	BIG 2020	The closer to the river, more vulnerable to flood.
8	Distance from primary forest	(MoEF), landcover 2019	The closer to forested area, higher ES potential.
9	Distance from secondary forest		The closer to forested area, higher ES potential.
10	Distance to burnt area	ICRAF 2020	The closer to burnt area, lower ES potential.
11	Distance from degradation area (2015-2019)		The closer to deforestation area, lower ES potential.
12	Distance from deforestation area (2015-2019)		The closer to deforestation area, lower ES potential.
13	% of the area with cultivation status	Ministry of Environment and Forestry (MoEF), state forest function in 2014	Higher % of cultivation area, high production potential.
14	% of cacao suitability area/village	BBSDLP 2017	Higher percentage of S1-S3 suitability class areas, higher production potential.
15	Distance from district capital	BIG 2020	Closer distance from capital, have better access to agricultural facilities to improve cacao production.
16	Distance from cultivation area	Ministry of Environment and Forestry (MoEF), state forest function in 2014	Closer distance from cultivation area, higher production potential.
17	Number of population per village	BPS 2010	Higher number of population, higher potential to contribute to labour availability to support cacao production.
18	Distance from unproductive land	KLHK LC 2019	Closer to unproductive land, higher potential to land availability to increase production.

Table 4. Characteristics of each level of potential production and potential ecosystems services.

	Potential production	Ecosystem services potentials
High	Suitability area for cacao is 65-100%	Forest area is higher than 85% and close proximity to state forest land.
Medium	Suitability area for cacao is 11-64%	Forest area per village is between 25 to 85% with medium distance to state forest land.
Low	Suitability area for cacao is 0-10%	Forest area per village is between 0-24% with far distance to state forest land.

Step 3. Verification of the identified clusters. In North Luwu, SFITAL intend to work in 3 clusters only, therefore verification process through FGDs and a household survey will only be carried out in the 3 clusters. The FGDs and household survey aim to gather detailed information on production and ecosystem services provisioning issues that exist in each clusters. Focus Group Discussion were conducted in 3 subdistrict per cluster, with household survey conducted on 3 villages per cluster. Appendix 3 provides detail information on the sampling framework for the household survey and the FGDs.

Appendix 3:

Sampling framework for identification of farmers typology

Developing farmers typology as a crucial step in the process of developing village interventions as it provides context for identifying the target beneficiaries for SFITAL interventions. Two main activities are carried out to develop farmers typology, a household survey and Focus Group Discussions (FGDs). The clusters developed from landscape characterization will become the basis for selecting the location for conducting the survey and the FGDs. The sampling unit for the Household survey is villages, while for the FGDs are kecamatan/sub-district. The FGDs are conducted to add a general information of the villages within a sub-district and thus combining the landscape and the 'jurisdictional' approach at the lowest unit. The FGDs also serves as a measure to verify the result of the household survey.

The sections below described the sampling framework used in North Luwu landscape.

Sampling framework for the household survey.

The following steps were taken:

- Deciding on the villages. Villages for household surveyed were selected by using the statistical value of distance to K-means of each cluster. For each cluster, three villages were selected, that represent the distribution in the landscape with the lowest distance to K-means. In cluster 2 and 5, three villages were selected. While for the cluster 7, due to the higher number of villages and higher variation between villages, 6 villages were selected, which represents western, central and eastern part of cluster 7.
- Deciding on the respondents. In each village, 10 respondents (representing household) were selected with the main criteria is previous involvement in cacao program and/or farmers group', under the expectation that these farmers could provide ample information on the extent of farming practices, farmers' knowledge and the barriers on cacao farming that exist in the targeted landscape.

Table 5 indicates the sampling steps taken for household survey in the North Luwu landscape.

Sampling framework for the FGDs.

The selection of sub-district is based on the subdistrict of the selected villages for household survey. In the case of North Luwu, a simple approach to select the respondents in the nearest village to the sub-district office, in addition to the sampled village in household survey, must be taken for practicality.

Table 6 indicates the sampling process taken for the FGDs in the North Luwu landscape.

Table 5. Steps in sampling the respondents for household survey in North Luwu

Cluster	Total villages	Total respondents	Name of the villages
Cluster 2	3	60 (20 respondents @village)	Baebunta, Tulak Tallu, Lantang Tallang.
Cluster 5	3	60 (20 respondents @village)	Kaluku, Mappadeceng, Waetuwo.
Cluster 7	6	90 (15 respondents @village)	Banyuwangi, Mukti Tama, Polewali, Rawamangun, Terpedo Jaya, Tete Uri.

Table 6. Steps in sampling the respondents for Focus Group Discussions survey in North Luwu

Cluster	Total subdistricts	Total respondents per FGD	Characteristics of respondents
Cluster 2	3 (Baebunta, Masamba and Sabbang)	10 persons from the selected village for HH survey; 20 persons from the other 2 villages	Representatives from 3 villages/subdistrict (with <u>one</u> of the village is the selected village for HH survey; the other two villages are adjacent to sampled village for HH survey).
Cluster 5	3 (Malangke Barat, Suka Maju, Mappadeceng)	10 persons from the selected village for HH survey; 20 persons from the other 2 villages	Representatives from 3 villages per subdistrict (with <u>one</u> of the village is the selected village for HH survey; the other two villages are adjacent to sampled village for HH survey).
Cluster 7	3 (Baebunta Selatan; Sabbang Selatan; Suka Maju Selatan)	20 persons from the two selected villages (@ 10persons) for HH survey; 10 persons from the other village	Representatives from 3 villages per subdistrict (with <u>two</u> of the village is the selected village for HH survey; the other two villages are adjacent to sampled village for HH survey).

Notes.

- Total FGD = 9 FGD in 9 subdistricts
- Total respondents per FGD is 30 persons– 10 male farmers (>35 years old); 10 female farmers (>35 years old); 5 female youth group (<35 years old); 5 male youth group (<35 years old).
- Respondents are representatives from village farmer group, female farmer group, youth groups, financial institutions at village level (Bumdes).

ⁱ Kabupaten Luwu Utara Dalam Angka 2020

ⁱⁱ Rencana Pembangunan Jangka Menengah (RPJM) Kabupaten Luwu Utara 2016-2021

ⁱⁱⁱ Rencana Pembangunan Jangka Menengah (RPJM) Kabupaten Luwu Utara 2016-2021

^{iv} Kabupaten Luwu Utara Dalam Angka 2020

^v North Luwu Cocoa Profile Report, NL Cocoa (Rainforest Alliance), 2020

^{vi} Statistik Ketenagakerjaan Luwu Utara 2019

^{vii} Statistik Ketenagakerjaan Luwu Utara 2019

^{viii} <https://aplikasi2.pertanian.go.id/bdsp/id/>

^{ix} Kabupaten Luwu Utara Dalam Angka 2020

^x Kabupaten Luwu Utara Dalam Angka 2020

^{xi} Kabupaten Luwu Utara Dalam Angka 2020; data from <https://luwuutarakab.bps.go.id/>

^{xii} <https://www.bbc.com/indonesia/indonesia-53440298>

^{xiii} [Mongabay 1](#); [Mongabay 2](#); [Pikiran-Rakyat.com](#)

^{xiv} wu Cocoa Profile Report, NL Cocoa (Rainforest Alliance), 2020

^{xv} MARS Presentation to SFITAL project, 9 July 2020

Appendix 4: Detailed workplan in North Luwu

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
1	Strengthen the enabling environment for leveraging environmental and social management systems and/or standards for sustainable inclusive and broad transformation of smallholder -based commodity value chain.				A.1
1.1	<i>Identify and analyse the potential for leveraging environmental and social management systems and/or standards to upgrade and position the targeted commodity value chains on global markets.</i>			Y1-Y2	A.1
1.1.1	Identify existing environmental and social management systems (i.e. Landscape context) in each commodity at national and provincial level.	1.1.1.1 Conduct literature review. 1.1.1.2 Organise in-depth interview with experts.	Report on potential and existing ESMS on cacao.	Y2Q2	A.1.2
1.1.2	Identify potential environmental and social management systems (i.e. Landscape context) in each commodity at national and provincial level.	1.1.2.1 Conduct literature review 1.1.2.2 Organise FGD online/webinar with experts.			A.1.2
1.1.3	Identify existing standard for certification in each commodity at national and provincial level (RA/JUTZ, ISO 34101 sustainable and traceable cocoa in EU).	1.1.3.1 Conduct literature review. 1.1.3.2 Organise in-depth interview with experts.			A.1.3

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
1.2.	Identify and design the supportive value-chain governance arrangements, and policy and regulatory environments at regional, national and local levels.			Y1-Y2	A.1
1.2.1	Identify and analyse value-chain governance for cocoa and palm oil at various levels: global, regional (major exporting countries), national and selected sub-national.	1.2.1.1 Conduct literature review. 1.2.1.2 Organise FGD online/webinar with experts.	Report on regulation and policy in cacao.	Y2Q2	A.1.2
1.2.2	Assess existing policy, regulations, national development plans and public-sector programmes that hinder or enable value-chain upgrading	1.2.2.1 Conduct literature review. 1.2.2.2 Organise FGD online/webinar with experts.	Report on value-chain governance of cacao in North Luwu.	Y2Q2 Y2Q3	C.2.2
1.2.3	Design implementable/practical sustainable commodity standard (based on 1.1.3 with 1.2.1 and 1.2.2 as enabling condition).	1.2.3.1 Organise FGD with national platform, connect with Component 2 Team.	Consultation meetings with national and district key resource persons on sustainable cacao development.	Y2Q3	A.1.3
1.3	Support in developing and further facilitating multi-stakeholder sustainability platforms to develop road maps and strategies - Linked to 4.1.			Y2-Y5	A1, C1
1.3.1	Conduct quarterly meetings with national multi-stakeholder platform.	1.3.1.1 Join regular meetings on oil palm. 1.3.1.2 Join regular meetings on oil cacao. 1.3.1.3 Actively participate and conduct meetings with Ministries that actively promote and pilot farmers corporate scheme, social forestry scheme and smallholder certification.	1 national meeting in cacao multi-national platform raising awareness on SFITAL.	Y2Q4 Y2Q2	A.1.1; C.1.2
1.3.2	Conduct roundtables and consultation.	1.3.2.1 Join regular meetings on oil palm. 1.3.2.2 Join regular meetings on oil cacao. 1.3.2.3 Actively participate and conduct meetings with Ministries that actively promote and pilot farmers corporate scheme, social forestry scheme and smallholder certification.			A.1.1; C.1.2

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
1.4	Provide technical assistance to regional cooperation bodies, national and sub-national governments.			Y3-Y5	A; C
1.4.1	Conduct capacity building assessment and training on sustainable commodity standard to stakeholders at site (district or provincial).	Join with component 3, for each commodity at least 1 meeting per site.	Activity report Partnership at national and regional level that promote enabling condition for sustainable commodity production and sourcing are established.		A.1.1
1.4.2	Consult on sustainable commodity standard at national level (Kementan, Bappenas, KemenKopUKM, Kemendag, RPN).				A.1.1; C.1.3
1.4.3	Mainstream SFITAL findings and/or facilitation to Regional cooperation bodies (ASEAN).				
2					B
2.1	Stocktake and identify production management approaches and technologies, and assess farmers groups' and local governments' capacity to adopt and monitor sustainable practices along value-chains in selected sites within the targeted landscapes.			Y1-Y3	B
2.1.1	Develop landscape characterization maps as sampling frame for zooming in on potential sites and target beneficiaries	2.1.1.1 Perform spatial and cluster analysis - linked with activity 3.1.4 to identify clusters - villages with similar characteristics	Landscape characterization maps as described in LDD with potential intervention sub-districts.	Y2Q1	B.1; B.2; B.3
		2.1.1.2 Organize discussions with local stakeholders to refine identified clusters			

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
2.1.2	Develop potential SFITAL interventions and identify its potential villages.	<p>2.1.2.1 Conduct household survey to identify farmers typology in each targeted clusters and issues in implementing sustainable commodity production.</p> <p>2.1.2.2 Conduct FGDs to capture information on past and on-going program on sustainable commodity production.</p> <p>2.1.2.3 Integrate the result of household survey, FGDs and review of past sustainable commodity programme to identify potential interventions for each target beneficiary.</p>	<p>Questionnaire, mobile apps for collecting data.</p> <p>Report on household surveys and FGDs.</p> <p>List of potential interventions and its locations/villages</p>	Y2Q2	B.1; B.2; B.3; A.1.3
2.1.3	Raise awareness on potential interventions to stakeholders in the targeted landscapes.	<p>2.1.3.1 Organise a series of discussions with local government to synergize with existing district programme on sustainable commodity production and to refine identified potential interventions.</p> <p>2.1.3.2 Organise series of discussion with farmers group and village leaders to verify potential interventions at village level and to reach agreement on becoming target village for SFITAL intervention.</p>	<p>Report on recommendation for potential interventions at farm level in each targeted villages.</p>	Y2Q2	B.1.1; B.2.1; B.3.2; B.2.2
2.2	Facilitate and build capacity of smallholders to pilot and prepare business plans compliant with agreed sustainability systems and/or standards and improve their resilience, and support in access to financing for main commodity, its by-product, and other commodities under agroforestry farming systems.			Y2-Y5	B.1, B.2, B.3
2.2.1	Facilitate and build capacity of smallholders to perform Good Agricultural Practice and sustainability standards enabling farmers to be certified ready in the targeted villages.	<p>2.2.1.1 Identify GAP standards recognized at national level for cocoa and oil palm, connect to 1.2.</p> <p>2.2.1.2 Identify current practices at farm level including barriers in GAP implementation through FGDs and survey.</p> <p>2.2.1.3 Develop training materials for improving GAP.</p> <p>2.2.1.4 Develop joint and participatory workplan in each targeted farmers group.</p>	<p>Compilation of GAP practices recommended at national level.</p> <p>List of existing barriers for implementation.</p> <p>List of specific interventions to improve GAP.</p> <p>Training materials on GAP in targeted commodities.</p> <p>Report on workplan and target interventions at village level.</p> <p>At least 1 business model established.</p>	Y2Q4	B.1.1
				Y2Q2	B.1.1; B.2.1;

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy	
2.2.2	Facilitate and build the capacity of farmers to establish and manage agroforestry systems in the targeted villages; including in social forestry areas for farmers group with permits.	2.2.1.5	Conduct a series of training to improve plot management according to sustainability standard.	Report on training process including list of participants differentiated by gender and age.	Y2-Y3	
		2.2.1.6	Facilitate meetings with relevant offices in managing sustainable commodity production and accessing good quality inputs, including potential partnership with government- or private sector - led initiatives.	Report on targeted activities, meetings and outcome achieved from each meetings. At least 1 partnership achieved.	Y2-Y4	B.1.1; B.1.2; B.2.1; B.2.2
		2.2.2.1	Assess farmers interest and capacity in managing agroforestry systems.	Report on potential commodities in the targeted landscape	Y2Q4	B.1.3; B.2.3; B.3.1
		2.2.2.2	Conduct study to assess market for the non-cacao or non-oil-palm agroforestry products			B.2.3; B.3.1
		2.2.2.3	Develop tool kits, including training material to strengthen the capacity of farmers in managing agroforestry systems.	Training materials on agroforestry design and management.		
		2.2.2.4	Develop joint and participatory workplan in each targeted farmers group.	Report on workplan and target interventions at village level established.		
		2.2.2.5	Conduct series of trainings to improve farmers capacity in managing agroforestry systems.	Report on training process including list of participants differentiated by gender and age.		
		2.2.2.6	Establish and design demonstration agroforestry plot using participatory approach with co-investment from farmers.	Establish at least 1 demonstration plot in each targeted sub-districts.	Y2Q4	
2.2.2	Facilitate and build the capacity of farmers to establish and manage agroforestry systems in the targeted villages; including in social forestry areas for farmers group with permits.	2.2.2.7	Develop nurseries for seedlings supply using participatory approach with co-investment from farmers.	Establish at least 1 nursery in each targeted sub-districts.	Y2Q4	
		2.2.2.8	Facilitate meetings with relevant offices in establishing agroforestry plots and nurseries, including potential partnership with government- or private sector - led initiatives.	Report on targeted activities, meetings and outcome achieved from each meetings. At least 1 partnership established.		

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
2.2.3	Facilitate and build the capacity of farmers to establish design and manage business models and alternative financing schemes in the targeted villages	<p>2.2.3.1 Review on existing farmers-developed-business-plan and alternatives for farmers and MSME financing in Indonesia.</p> <p>2.2.3.2 Identify production and profitability based on the current practices - linked to activity 2.3.</p> <p>2.2.3.3 Assess existing business plan in the district and barriers and enabling condition for success.</p> <p>2.2.3.4 Assess potential market and value chain for commodity in the area, including market for the targeted business products - linked to Activity 2.2.2.2.</p> <p>2.2.3.5 Develop training materials for raising awareness and strengthening farmers capacity to establish business plan, such as financial literacy and entrepreneurship training.</p> <p>2.2.3.6 Conduct series of training and facilitation in establishing and managing business.</p> <p>2.2.3.7 Design business plan jointly with farmers.</p> <p>2.2.3.8 Facilitate meetings with relevant offices on establishing business models and their financing schemes, including potential partnership with government-led initiatives, off takers, entrepreneurs and private sectors.</p>	<p>Report on lesson learned from farmers-led business model in Indonesia.</p> <p>Report on potential commodities in the targeted landscape.</p> <p>Training materials on developing business model.</p> <p>Report on training process including list of participants differentiated by gender and age.</p> <p>Business design and plan</p> <p>Report on targeted activities, meetings and outcome achieved from each meetings. At least 1 business model established. At least 1 business model established.</p>	<p>Y2Q3</p> <p>Y2Q3</p> <p>Y3</p> <p>Y3-Y4</p> <p>Y3</p> <p>Y3-Y5</p>	<p>B.1.3; B.2.2; B.3.2</p>

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
2.3	Establish and test a traceability system that meets the minimum requirements of sustainable commodity development at the jurisdiction level, and develop participatory monitoring systems coordinated by farmers' groups.			Y2-Y5	B
2.3.1	Establish and test traceability systems at farmers level	2.3.1.1 Study on challenges and successes of traceability systems implementation at farm level.	Report documenting lesson learned in traceability implementation. List of barriers in implementation.	Y2Q4	B.1.4; B.2.1; B.3.2
		2.3.1.2 Raise awareness on traceability systems as requirements for sustainable commodity development - in partnership with existing traceability platform.	Tool kit for traceability awareness raising campaign.		
		2.3.1.3 Design and test the traceability system, in partnership with existing traceability platform and linking it with existing participatory monitoring by farmers – Activity 2.3.2.	At least 1 farmers group successfully implement traceability systems	Y3	
		2.3.1.4 Facilitate discussion between farmers with relevant institutions (public and private sectors) on traceability systems - link with Activity 1.4, and 3.3.		Y3-Y5	
2.3.2	Establish and test participatory monitoring systems for farmers-led activities i.e. MSME, nurseries, etc.	2.3.2.1 Identify needs for participatory monitoring of sustainable production at farm level and farmers-led scheme.	Participatory monitoring guideline for each farmers-led schemes is available	Y3-Y4 Y3Q3	B.1.3; B.2.3; B.3.2; B.3.3
		2.3.2.2 Raise awareness on participatory monitoring and evaluation systems to farmers, village leaders and institution and district offices.			
		2.3.2.3 Design participatory monitoring and evaluation systems applicable for targeted schemes.			
		2.3.2.4 Organize series of trainings to enable farmers and relevant village institutions to conduct participatory M&E.	Training materials developed based on guidelines. Report on training process including list of participants differentiated by gender and age.		
		2.3.2.5 Facilitate discussion between farmers with relevant institutions (public and private sectors) on participatory monitoring and evaluation systems - Link with activity 1.4 and 3.5.	At least 1 participatory monitoring systems established and implemented.		

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
2.4	Pilot and measure impact compliant with agreed sustainability management systems and/or standards, and result sharing		Report on assessment of ES provisioning under various land cover/use systems in the targeted landscape. Partnership with local university.	Y2-Y6	B1; B2; B3
2.4.1.	Measure plot-level ecosystem services using participatory approach in collaboration with local universities	2.3.3.1 Contact and connect with potential universities, develop networks and contractual agreements. 2.3.3.2 Set joint research and agree on research design on ecosystem service measurement. 2.3.3.3 Facilitate and supervise the research implementation at the plot level. 2.3.3.4 Raise awareness and facilitate site training (farmers, youth) and institutional building for conducting participatory ES monitoring. 2.3.3.5 Supervise and monitor the ES participatory monitoring efforts by local community and farmers.	Report on assessment of ES provisioning under various land cover/use systems in the targeted landscape. Partnership with local university.	Y2Q4	B.2.3
				Y2-Y3	
				Y3	
				Y2-Y3	
2.4.2.	Evaluate the implementation and the performance of traceability and participatory M&E systems	2.3.4.1 Design systems to evaluate the efficacy of traceability and participatory M&E systems. 2.3.4.2 Perform the evaluation at farmer's level.	Report on lesson learned on the efficacy of traceability and M&E systems for sustainable commodity production.	Y3-Y5	B.1.3; B.1.4; B.2.3; B.3.2; B.3.3
				Y6	
3	Develop road maps to scale-up and mainstream inclusive, sustainable and transparent smallholder commodity chains.				C
3.1	Collect participatory data to feed into the development of appropriate land-use scenarios that match local contexts in the targeted landscapes.			Y1-Y2	C.2
3.1.1	Compile and develop basic information maps for developing cacao/oil palm development scenarios at jurisdictional level	3.1.1.1 Produce time series of land cover maps at medium scale resolution using training sample from high resolution imagery and verified through groundtruthing survey 3.1.1.2 Stocktake available land allocation data and information from development and spatial plan documents, verified through FGD with local stakeholders	Spatial data, land use/cover map and designated land use maps for North Luwu are available.	Y2Q3	C.2.1
3.1.2	Identify current practices and potential interventions towards sustainable cacao and oil palm	3.1.2.1 Develop preliminary commodity-development planning-units of oil palm/cacao through spatial and statistical analysis of relevant spatial indicators derived from spatial data in 3.1.1		Y2Q3	C.2.1

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
	development at jurisdictional level verified by local stakeholders	3.1.2.2 Identify Drivers, Pressure, State, Impact and Responses in commodity development verified by local stakeholders through series of FGDs 3.1.2.3 Formulate scenarios for sustainable cacao/oil palm development at jurisdictional level, developed from 3.1.2.1 and 3.1.2.2 and verified through FGD with the local stakeholder - Linked to Activity 3.4			
3.1.3	Produce ex-ante analysis of the impact of commodity development on provisioning of ecosystems services and commodity production	3.1.3.1 Develop zonation for planning development based on typology of commodity production and FGDs with local stakeholders 3.1.3.2 Compile relevant ecosystem services provisioning data based on secondary data or field survey - linked to Activity 2.4.1 3.1.3.3 Conduct baseline simulation and ex-ante analysis using intervention scenarios for sustainable commodity production developed in Activity 3.1.2	Land cover/use change maps and list of trajectory of changes. Report on DPSIR of cacao development and typology of cacao in North Luwu.	Y2Q3	C.2.1
3.2 Develop land-use suitability maps and scenarios for targeted commodities and landscapes					
3.2.1	Compile spatial data on soil, biophysical, social and policy for multi-dimensional suitability map of cacao and oil-palm	3.2.1.1 Compile information on land characteristics and land suitability class based on growing requirements for commodities (cocoa and oil palm) 3.2.1.2 Develop and collect spatial and tabular data on policy, socioeconomic, accessibility, environment aspects and including certified plantation/farm areas from various sources and verify through local stakeholders 3.2.1.3 Analyze land suitability through multi-criteria analysis.	List and database of spatial and tabular data and maps available for further analysis.	Y2-Q2 Y2-Y3	C.2.2 C2
3.2.2	Add policy and social information to suitability analysis for commodity.	3.2.2.1 Develop and collect spatial and tabular data on policy, social, access, environment aspects from various sources. 3.2.2.2 Identify area in the landscape that has certified cacao.	List and database of spatial and tabular data and maps are updated, compiled and available for further analysis.	Y2-Q3	C.2.2

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
		3.2.2.3 Conduct HCV and HCS analysis.			
		3.2.2.4 Assess land accessibility based on information on the ground.			

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
3.3	Develop, test and evaluate sustainable commodity sourcing management systems at landscape/district level			Y2-Y3	C3
3.3.1	<i>Design sustainable commodity sourcing management systems at landscape/district level</i>	3.3.1.1 Review on existing landscape level commodity sourcing management systems and online platforms (Kolitiva, Blue Dot, Terpercaya)	Conceptual design of sustainable commodity sourcing, including SMART sustainable landscape indicators.	Y2Q2	C.3.1
		3.3.1.2 Develop landscape indicators for sustainable commodity sourcing management systems through literature review and FGDs			
		3.3.1.3 Review and identify potentials and constraints of existing value chain governance in supporting the proposed sustainable management systems			
		3.3.1.4 Develop landscape level sustainability management systems across commodity and sustainability standards with adapting geographical indication successes to the landscape.			
3.3.2	Develop spatially explicit information systems (tools) to promote for adoption and application at landscape level, including through the multi-stakeholder platforms, the network of implementing partners and policy engagement with government institutions and sustainability and market actors.	3.3.2.1 Build prototype based on 3.3.1.4 and conduct internal testing and refinement	List of SMART sustainable landscape indicators that has been agreed by North Luwu stakeholders.	Y2 Q3	C.3.1
		3.3.2.2 Organise Focus group discussion with relevant government institutions and market actors to gain information on their expectations on what the spatial information systems can provide			
		3.3.2.3 Refine the tool and develop manual and guidelines			
3.3.3	Test and evaluate sustainable commodity sourcing management systems at landscape/district level	3.3.3.1 Test the operationalisation of the tools with Comp 2	Document on potential value chain governance interventions for cacao based on at least 3 FGD's and 1 set of key informant interviews.	Y2 Q4	C.3.1
		3.3.3.2 Design M&E systems to evaluate tools performance			
		3.3.3.3 Evaluate the efficacy of tools			

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
3.4	Conduct intervention planning and partnership building in developing and implementing sustainable and inclusive jurisdictional strategy for commodity development plans for targeted landscapes.			Y2-Y3	C.1
3.4.1	Build the common vision of jurisdictional strategy for sustainable commodity development of cocoa and oil palm at landscape level.	<p>3.4.1.1 Review literature on jurisdictional sourcing: definition, applications and effectiveness of the schemes https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/csp2.383</p> <p>3.4.1.2 Identify situational and political enabling conditions of the jurisdictions</p> <p>3.4.1.3 Collect information on value propositions of relevant key stakeholders</p> <p>3.4.1.4 Review readiness of local government to enforce sustainable sourcing agreement in the connection with their land use and development planning and strategy</p>	Report on the process of developing common vision on sustainable cacao in North Luwu.	Y2Q4	C.1.1
3.4.2	Refine the strategy of sustainable development of cocoa and oil palm.	<p>3.4.2.1 Review current strategy and practices for sustainable development of cocoa.</p> <p>3.4.2.2 Compile information on sustainable development strategy for cocoa.</p> <p>3.4.2.3 Develop strategy to enhance sustainable development of cocoa.</p>	Well established strategy of sustainable development of cocoa in North Luwu.	Y3	C2

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
3.4.3	Build the commitment of stakeholders to adhere to the zoning and implementation of the management plan.	3.4.3.1 Develop plausible land use scenarios based on information collected in Activity 3.1 and 3.2. 3.4.3.2 Organize discussion with relevant stakeholders on the commitment for zoning and implementation. 3.4.3.3 Finalize zoning and implementation of the management plan that is spatially explicit.	Documentation on the process of building stakeholders commitment towards implementation. A district-level cacao development and management plan that has been agreed by all district stakeholders cacao in North Luwu.	Y2-Y3 Y3Q4 Y3Q4	C.2.2; A.1.3
3.4.4	Develop roadmap and implementation plan that including partnership and institutional building for each targeted landscape	3.4.4.1 Compile relevant information on cacao development strategies, potential interventions, potential partnership, and relevant institutions 3.4.4.2 Consult preliminary roadmap with relevant stakeholders. 3.4.4.3 Finalize roadmap which include partnership and institutional building for each targeted landscape.	Roadmap for jurisdictional sustainable cacao development in North Luwu.	Y4Q1	C.2.3
3.5	Pilot co-investment for ecosystem services and reward mechanisms to incentivize compliance at scale.				
3.5.1	Raise awareness on ES payment and ecological fiscal transfer, discuss and collaboratively design the governance for coordination and sustainable financing.	3.5.1.1 Conduct trainings, improve understanding and build consensus on development of payment, compensation and rewards for ecosystem services (note: compensation and rewards for ES - PCRES - are the specific forms of ecological fiscal transfer scheme in Indonesia).	List of attendance. Report on meetings and facilitation process.	Y2Q3	B.3 B.3.3
		3.5.1.2 Analyze and jointly determine institutional and sustainable financing platforms for PCRES.	Institutional platform, governance, and financing scheme for PCRES. Multistakeholder MoUs.		
		3.5.1.3 Facilitate new or equip existing institutional platform to support the operationalization of PCRES.	Road map and workplan of such platform. Report on facilitation process and meetings.	Y3Q2	

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
3.5.2	Design and pilot the most appropriate and operational PES scheme consulted to and implemented by the local stakeholders.	<p>3.5.2.1 Compile information on ecosystem service potentials and modeling from other SFITAL components and activities.</p> <p>3.5.2.2 Develop business cases for PES at targeted landscapes.</p>	<p>ES potential and modeling for each targeted landscape.</p> <p>PES business case for Luwu Utara.</p>	Y3Q1	B.3.4; C.1.3; C.2.4
		3.5.2.3 Facilitate the implementation of PES by the local multistakeholder platform/ appointed intermediary institution.	Report on facilitation process and meetings.		
		3.5.2.4 Facilitate the multistakeholder platform/ appointed PES intermediary to attract and get buy-in from ES (private) buyers.	Contractual agreements with ES buyers.	Y3Q1	B.3.4; C.1.3; C.2.4
3.5.3	Design and pilot the ecological fiscal transfer (EFT) for ecosystem services at the sub-national levels - provincial/district (i.e. compensation and rewards in Indonesian context).	<p>3.5.3.1 Compile information and potentials for EFT based on the performance of sustainable commodity development scheme for cacao.</p> <p>3.5.3.2 Develop materials and module for strengthen capacity.</p> <p>3.5.3.3 Conduct the series of trainings.</p>	<p>A guideline on EFT.</p> <p>Training materials on EFT.</p> <p>Report on trainings and facilitation process, list of participants.</p>	Y3-Y4	B.3.4; C.1.3; C.2.4
		3.5.3.4 Establish, facilitate a district task force on EFT, and support in developing road map and workplan.	District task force on EFT, road map and workplan.		
		3.5.3.5 Facilitate the pilot of EFT at the district level.	Two pilots of EFT.		
3.5.4	Perform consumer surveys to identify and analyze the willingness of both domestic as well as international consumers (or buyers) to pay premiums for products that carry territorial/jurisdictional labels (for example, deforestation for palm oil and cocoa) or documents of origin.	<p>3.5.4.1 Review existing literature on consumers preference and behaviour on premium commodities.</p> <p>3.5.4.2 Develop on-line questionnaire.</p> <p>3.5.4.3 Execute on-line survey.</p> <p>3.5.4.4 Analyze the data.</p>	<p>Report on willingness to pay premium cacao.</p>	Y3	C.1.3; C.2.4

Activities	Detail	Methods/Specific Activities	Deliverables	Time	LDD Strategy
3.5.5	Evaluate the performance-based co-investment for ecosystem services and EFT pilots.	<p>3.5.6.1 Study the existing and emerging M&E system for PES and EFT.</p> <p>3.5.6.2 Synthesize the M&E framework to be use at landscape level.</p> <p>3.5.6.3 Integrate the M&E system into workable and sustainable system at landscape.</p>	A report on PES and EFT evaluation.	Y4-Y6	C.2.4

