

A close-up photograph of a person's hands holding several fresh vegetables, including green bell peppers and red tomatoes. The background is blurred, showing a person in a yellow shirt. A green rectangular box is overlaid on the left side of the image, containing the title and date.

Natural & Social Capital Impact Valuation

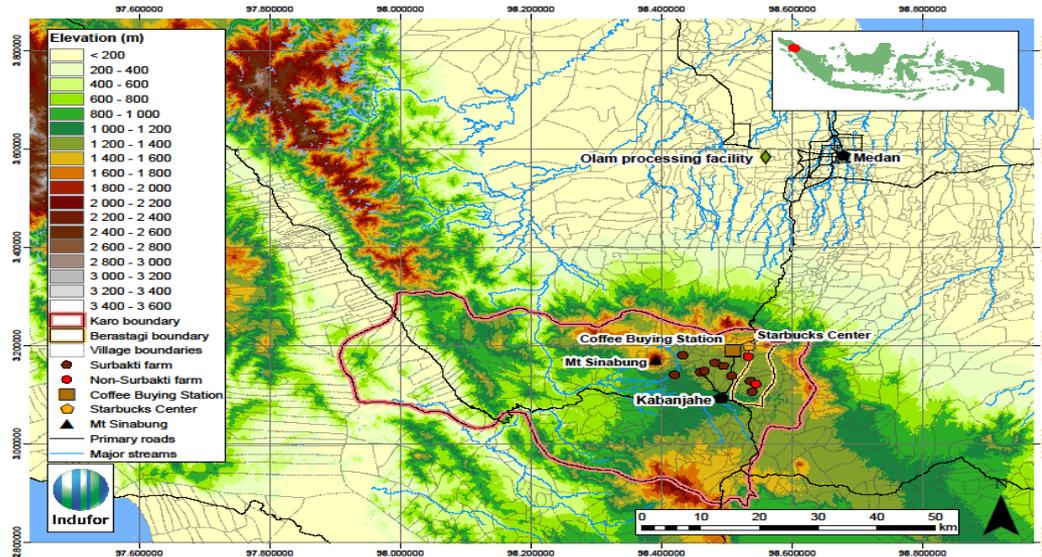
November 2017

Olam objectives for Natural & Social Capital Impact Valuation



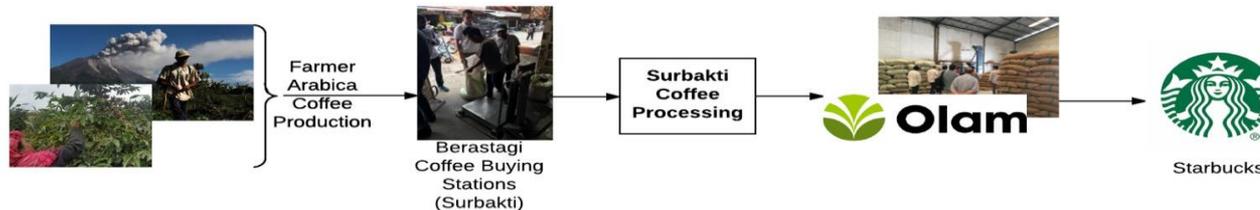
1. Inform the future design of effective farmer livelihood programmes, to enhance long-term yield security and resilience while reducing vulnerabilities related to natural capital.
2. Support the identification of materially important Sustainable Development Goals (and Targets) at a programme/country level and measure Olam's contribution towards them.
3. Compare with previous work done in other value chains at Olam to refine the capital and impact valuation model used.
4. Build internal and external support to mainstream capital and impact valuation across Olam's value chains.
5. Support the development of new accounting frameworks to move capital and impact valuation out of the 'sustainability silo' and into our mainstream financial reporting systems.

Olam Coffee Value Chain, North Sumatra



Materiality assessment revealed:

- Soil quality impacts (on-farm from excessive fertilizer inputs);
- Water use dependence (on-farm from processing and irrigation), and
- Pollination dependence / agroforestry (interactions with pesticide / production regime).



Takeaway 1: Both Olam and farmers benefit from adoption of semi-organic fertilizers



Valuation result	Actions	Implication
<p>Adoption of proper semi-organic fertilizer application rates will enhance net profits from coffee production for both Olam and farmers.</p>	<p>Leverage Starbucks Farmer Support Center to provide farmer trainings across coffee sourcing areas on higher-yielding semi-organic soil amendments (can benchmark with new chemical to be piloted by Olam)</p> <p>Provide a model for public sector agricultural extension services which reportedly refer to the private sector extension agents for guidance</p>	<p>Business: enhanced long-term yields and reliability of supply, reduced fertilizer and remediation costs, less disruption due to abiotic shocks</p> <p>Environment: enhanced soil health, reduced nutrient leakage/runoff and associated environmental impacts</p> <p>Livelihoods: increased net income for farmers, reduced human health impacts</p>

Takeaway 2: Farmers benefit from more efficient use of rainwater

Valuation result	Actions	Implication
<p>Farmer coffee producers bear significant water costs, purchasing water for semi-washed processing (and sometimes irrigation) and still do not have enough water to achieve optimal coffee yields.</p>	<p>Provide technical assistance to enable widespread adoption of rainwater harvesting tanks and other water infrastructure, and training on ways to optimize water use for irrigation and processing, e.g. reducing water waste, exploring natural or honey processing</p> <p>Inquire into public sector ability to improve reliability of piped water access and regulate water use, particularly considering drought risks</p>	<p>Business: enhanced long-term yields and reliability of supply, less disruption due to abiotic shocks</p> <p>Environment: uncertain, potentially less pressure on certain water supplies</p> <p>Livelihoods: increased net income for farmers due to higher yields, reduced cost to buy imported water</p>

Takeaway 3: Agroforestry systems provide greater long-term value for Olam and farmers

Valuation result	Actions	Implication
<p>Agroforestry systems provide greater long-term value for Olam, particularly in weathering eruption shocks, whereas they provide positive but relatively less value for farmers given their higher risk aversion.</p>	<p>Design agroforestry program (locally suitable species, reliable cash flows, spacing) in order to protect coffee and other crop yields, reduce water and fertilizer costs, and mitigate any losses from drought and eruption shocks</p> <p>Aside from lamtoro species included in model, can switch in other income-generating shade-tree species such as arenga (sugar palm) and avocado trees, and understory crops such as pepper</p>	<p>Business: enhanced long-term yields and reliability of supply, less disruption due to abiotic shocks</p> <p>Environment: enhanced soil and water quality, pollination, biodiversity, and carbon sequestration</p> <p>Livelihoods: lower NPV but more reliability in yields, diversification of income and food sources, reduced water and fertilizer costs, more reliable coffee and other understory crop yields cushioned from shocks</p>

Scaling up from this project

- This case builds on Olam's other experience of valuing Natural Capital impacts in cocoa (Indonesia), coffee (Cameroon), cotton (Cote d'Ivoire), and sugar (India)
- Olam will examine further mainstreaming natural capital accounting in its other value chains to enhance sustainability and farmer profits, thus securing sourcing and reducing risks of price fluctuations:
- Olam's other sourcing of coffee from Indonesia: Bali, Sulawesi, and West Java.
 - Can use soil, water, and agroforestry models to enhance ecosystem services, while managing drought and other abiotic stressors
 - Can communicate the benefits of adopting formalised farming systems/practices e.g. Olam Livelihood Charter, Starbucks C.A.F.E. practices
 - Application of Protocol for other major commodities in Indonesia such as cocoa and palm oil
- Opportunity to explore policy level approaches for Indonesia but still work to do as regards institutional and other stakeholder capacity.

Conclusions

1. Not practical or cost-effective for Olam to conduct such deep-dive natural and social capital studies without external support (technical and financial). Collaboration is key.
2. There is a need to be forward looking and operate sustainably within the natural and social capital constraints of today and tomorrow. Olam will explore the use of Planetary Boundaries and SDGs for its baselines and forward looking scenarios.
3. Olam shall seek to use these on the ground projects (e.g. within the Olam Livelihood Charter) to ‘ground truth’ and/or refine our secondary data and valuation models in order to scale up across landscape/regional/country levels.
4. Olam shall employ a full value chain approach to highlight the material areas, the role of Olam and the shared responsibility of all actors (public sector, private sector and civil society) across the value chain to address the material issues collaboratively.
5. We believe natural and social capital valuation can be used to create change within policy frameworks (e.g. water stewardship, farmer training, fertiliser subsidies etc.)
6. Natural and social capital and impact valuation can be used to change financial and sustainability reporting in order to better demonstrate how companies create and erode value across the capitals (financial, natural, social and intangibles i.e. reputation)

