MiSi MALAYSIA INSTITUTE FOR SUPPLY CHAIN INNOVATION

The Role of Independent Smallholder Farmer in the Malaysian Oil Palm Supply Chain

Managing Risks & Leveraging Opportunities

Value-based Intermediation Impact Assessment Framework (VBIAF)
Sectoral Guide Town hall – Palm Oil Sector
Bank Negara Malaysia

September 10th 2020

Dr. Asad Ata

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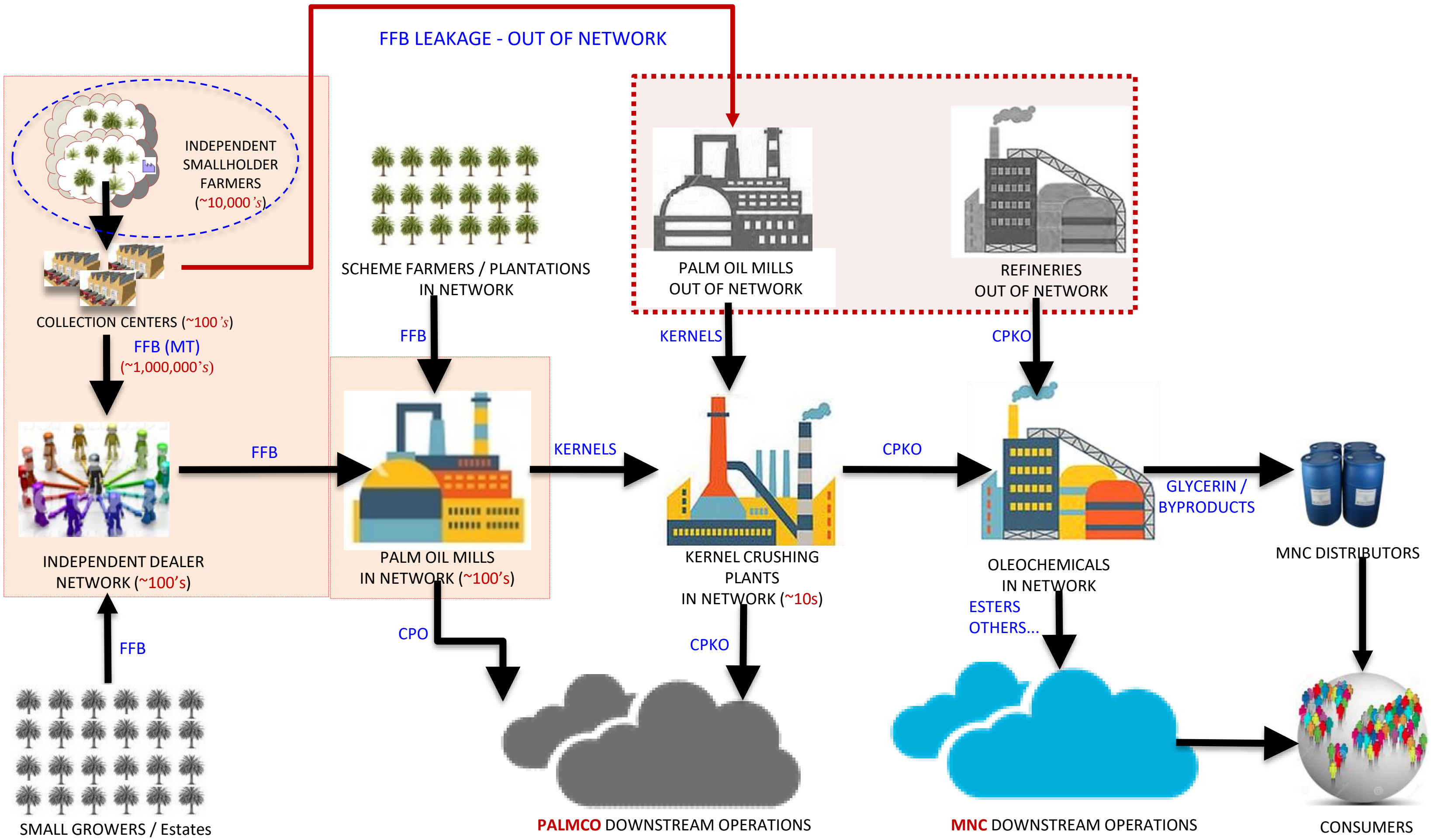
Oil Palm to Oleo-Chem Supply Chain



LEGEND

FFB: FRESH FRUIT BUNCH 9OIL PALM FRUIT)
CPO: CRUDE PALM OIL **CPKO**: CRUDE PALM KERNEL OIL

MNC: MULTI NATIONAL COMPANIES
PALMCO: DOWNSTREAM PALM OIL PROCESSING
IN NETWORK: TRACEABLE SUPPLY TO N LEVELS
OUT OF NETWORK: TRACEABLE TO ONLY ONE TIER

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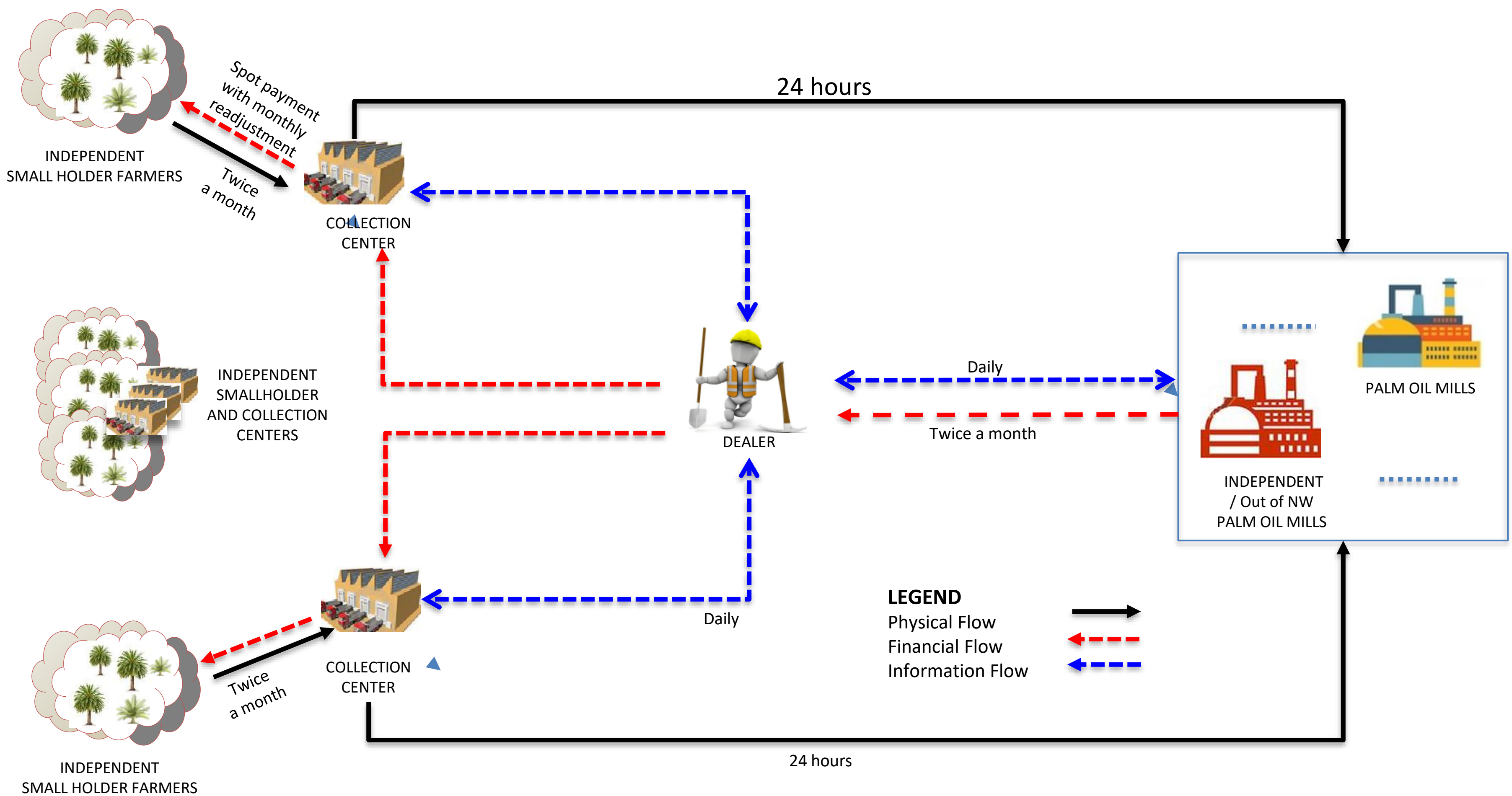
Supply Chain Flows – ISHF Farm to Mill



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ISHF Challenges & Opportunities

1 MT FFB (ISHF Financial Analysis)

	CPO	CPKO	CAKE
Revenue Streams	CPO	CPKO	CAKE
Mill Gate Price (-RM 50/ MT processing)	18% x RM2500* = ~ 400 / MT FFB	2.25% x RM3000* = ~ 70	6% x RM350* = ~20
Fraction of Revenue [X/Total Revenue (RM 540)]	75%	13%	~3%

*Based on MPOB Average Price

Input Cost [RM 175/MT FFB or 33%]

- Total Revenue / MT FFB = RM 225 or 42%
- Average Monthly Revenue
  = RM 225 * 18 MT/Ha * 3Ha / 12 = ~ RM 1000
- Systemic Leak = 16%
- High Input Cost = ~ +10%
- Inefficiencies' (Loose Fruit Loss) = ~ 6%

External Factors

- CPO Price Fluctuation
- Certification Cost & Pressure
- Anti Palm Oil Campaign

Internal Factors

- Dis-economies of small size
- Replanting costs
  - Intercropping Support
  - Underplanting Support

ISHF Population Trend in Malaysia

Year	Smallholder	ISHF	Percentage
1997	296,727	67,208	23%
2000	346,325	87,717	25%
2007	441,530	120,341	27%
2011	512,832	179,350	35%
2012	520,711	177,046	34%
2013	536,383	192,199	36%
2014	553,050	204,970	37%
2015	578,763	220,023	38%
2016	588,511	234,707	40%
2017	596015	249,029	42%
2018	599,931	255,615	43%
2019	605,144	258,657 (Excludes Unregistered)	43% (> 50% ISHF)

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SOURCE: MPOB

ISHF Ownership by State 2019

State	ISHF		Areas		Average holding size (Ha)
	No.	%	No.	%	
Sarawak	**233,198**	**24%**	**40,450**	**16%**	**5.77**
Johor	**226,113**	**23%**	**80,634**	**31%**	**2.80**
Sabah	**209,624**	**21%**	**32,156**	**12%**	**6.52**
Perak	**125,063**	**13%**	**47,184**	**18%**	**2.65**
Pahang	**52,987**	**5%**	**13,877**	**5%**	**3.82**
Selangor	**42,016**	**4%**	**20,975**	**8%**	**2.00**
Kedah	**28,401**	**3%**	**6,565**	**3%**	**4.33**
Negeri Sembilan	**26,998**	**3%**	**6,002**	**2%**	**4.50**
Melaka	**12,970**	**1%**	**3,094**	**1%**	**4.19**
Terengganu	**12,659**	**1%**	**3,630**	**1%**	**3.49**
Pulau Pinang	**9,240**	**1%**	**1,847**	**1%**	**5.00**
Kelantan	**6,898**	**1%**	**2,209**	**1%**	**3.12**
Perlis	**164**	**0%**	**34**	**0%**	**4.82**
Total	**986,331**	**100%**	**258,657**	**100%**	**4.08**

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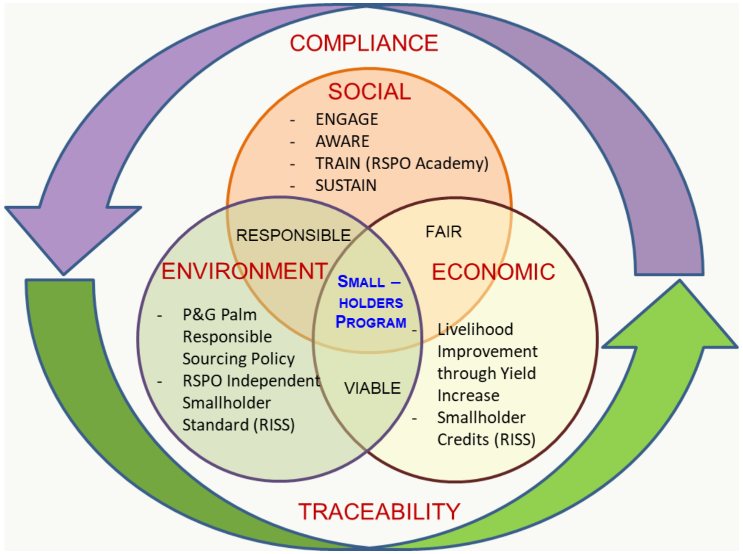
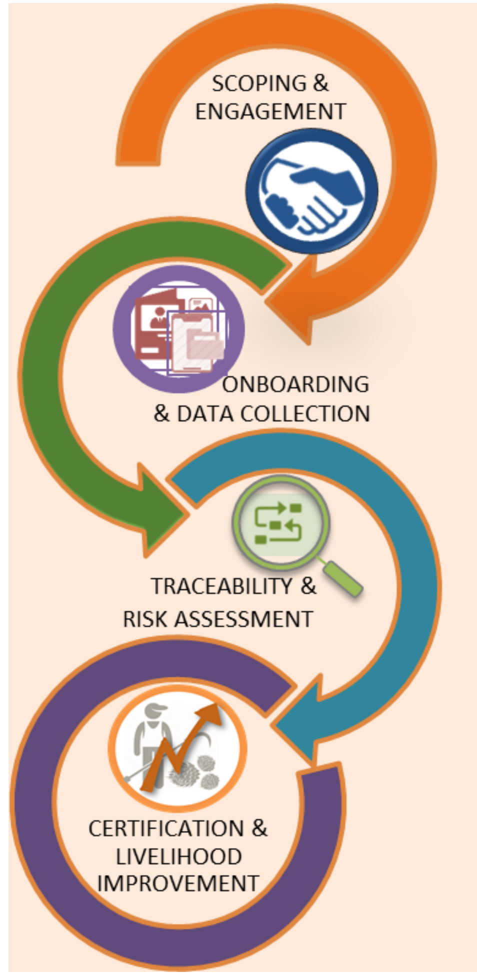
CENTER FOR SUSTAINABLE SMALL-OWNERS (CSS)

PERTUBUHAN TANI NIAGA LESTARI

PERTANIAGA
AN ASSOCIATION OF SMALL FARMERS BY SMALL FARMERS FOR MALL FARMERS



MISSION: To safeguard the interest of the independent small growers and improve their livelihood while ensuring ethical and responsible sourcing for oil palm with commitments to No deforestation, no new plantation on peatlands, and no exploitation in the supply chain, also known or NDPE policy



SUSTAINABILITY JOURNEY

PERTANIAGA FARMERS ACT AS

- SOCIAL & ENVIRONMENTAL CHANGE AGENTS
- RESOURCE TRAINERS
- SCALE THE EFFORT TO OTHER FARMERS

PERTANiaga

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MIT Global Supply Chain And Logistics Excellence (SCALE) Network

An International Alliance of Leading Research and Education Centers Dedicated to Supply Chain and Logistics Excellence Through Innovation

Malaysia Institute for Supply Chain Innovation (MISI)

MISI was launched in March 2011 as a joint initiative between Government of Malaysia and the Massachusetts Institute of Technology (MIT) Cambridge, USA

Mission: Graduate Education, Research, Industry Outreach in Supply Chain Management

Center for Sustainable Value Networks (CSVN)

CSVN was launched as a MISI Center of Excellence in 2014

To Create and promote value proposition through sustainability by designing supply chains which are responsible at their core while environmentally friendly, socially inclusive and economically viable

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