

From growing food to growing cash: the impact of agrarian transitions on diets and nutrition in rural Indonesia

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RESEARCH
PROGRAM ON
Forests, Trees and
Agroforestry

Drivers of Food Choice Grant



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Project Partners:

- CIFOR
- University of Brawijaya
- Penn State University
- Poltekkes Pontianak
- Poltekkes Jayapura

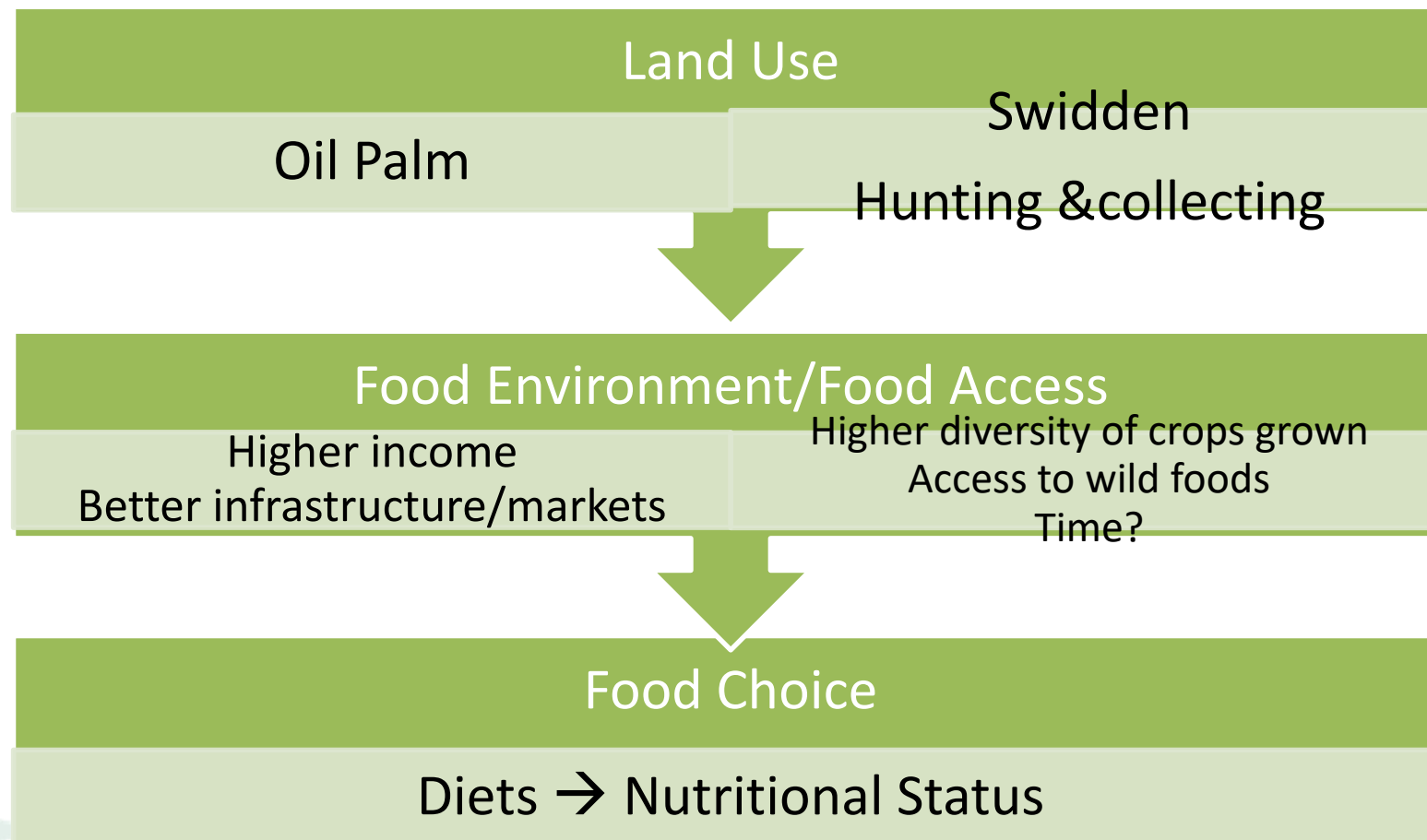




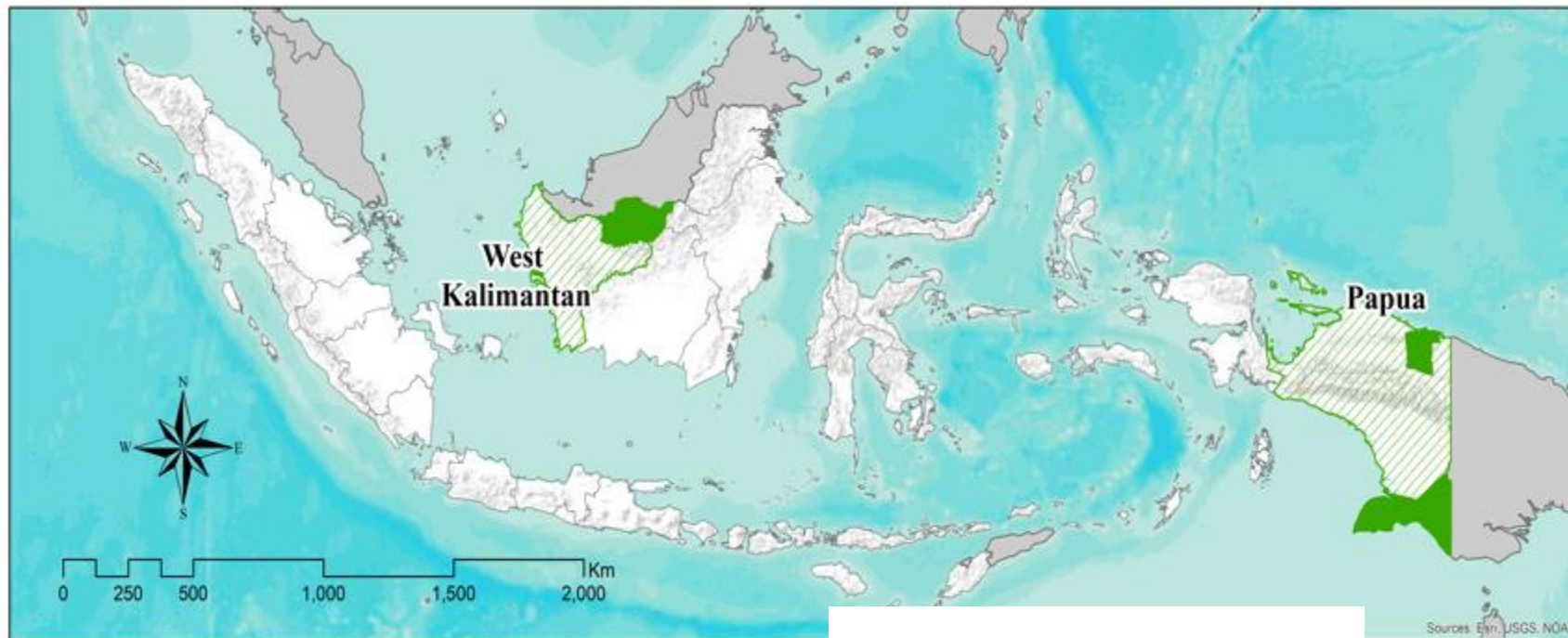
Project Background

- Indonesian nutritional context
 - High stunting; nutrition transition; major increases in diabetes & CVD
- Rapid landscape change
- Idea: shift from mixed smallholder landscapes could impact rural food environment and food choice
 - Investigate role of land conversion to oil palm (OP) as an underlying driver of food choice in rural Indonesia.

How might change of land use to OP affect diets?

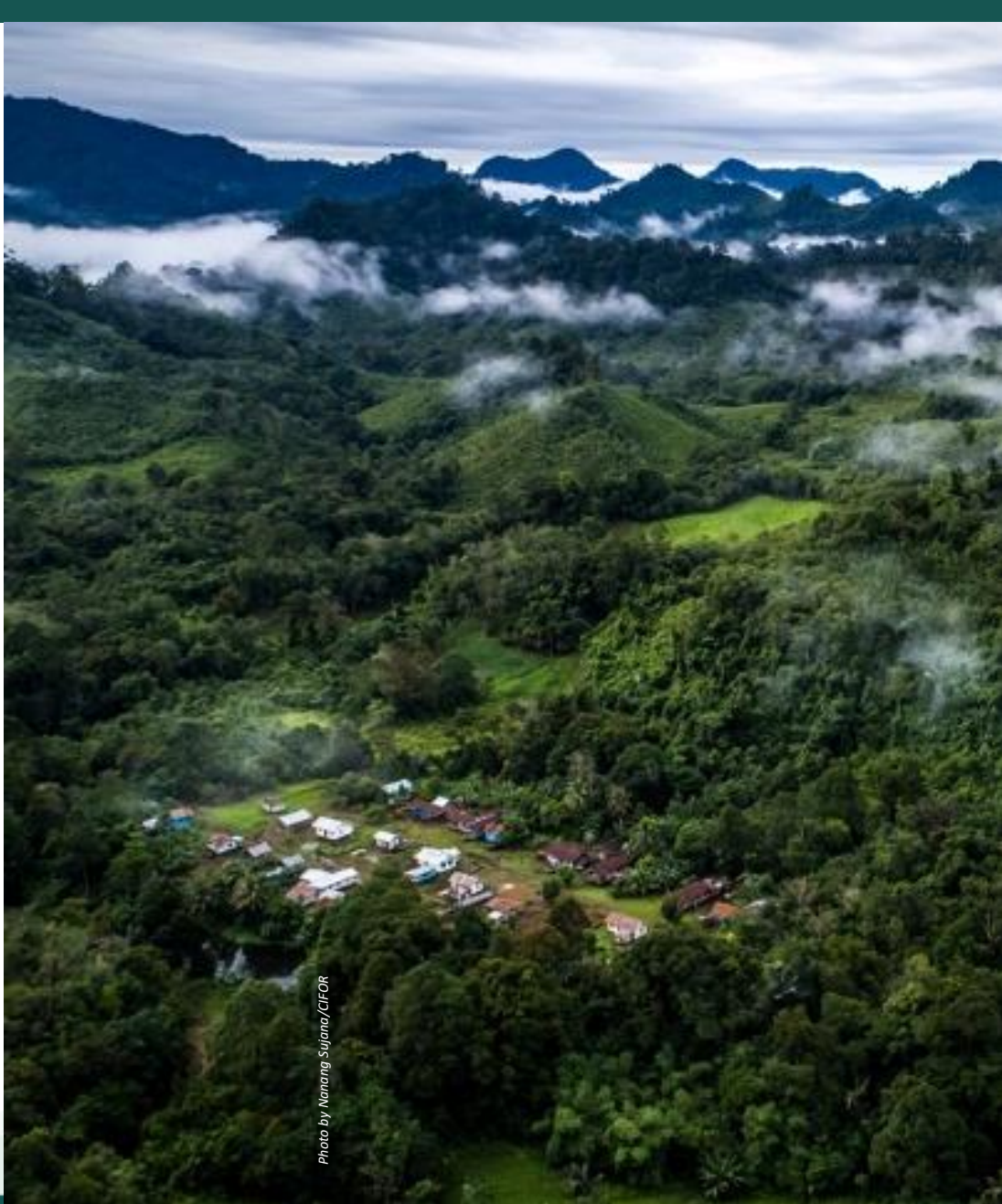


Study Sites: Kapuas Hulu, West Kalimantan Merauke & Jayapura, Papua



Legend

- DFC Study Sites
- Province AOI
- Indonesia Province Boundary
- Other Country



Methods & Design

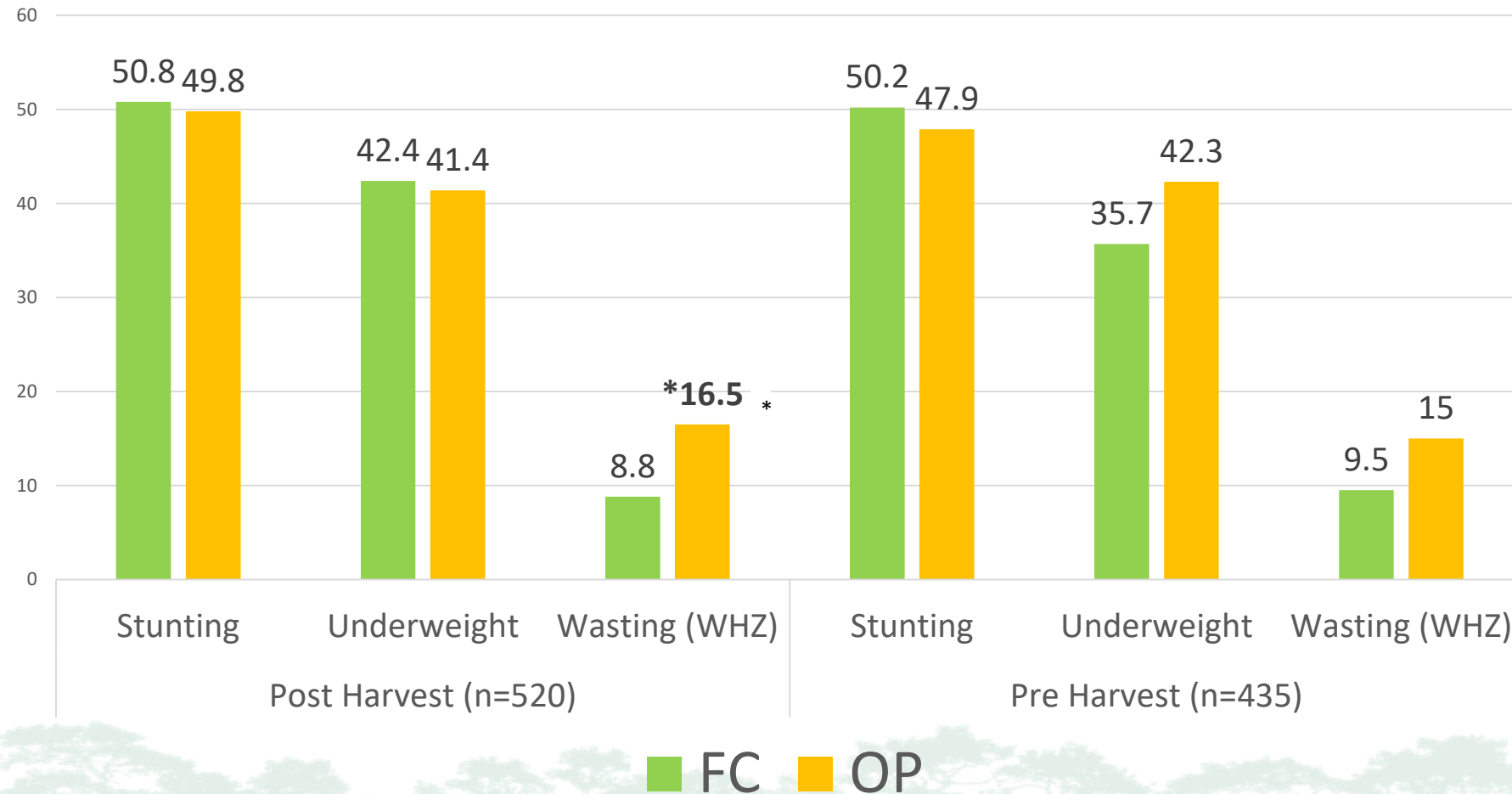
- Sample selection:
 - In each site indigenous residents with half mother-child pairs (250) traditional lifestyle & half (250) oil palm
- Total sample
 - Approx 500 pairs per site and 1000 in total
- FGDs men & women
- 24 hr recall for pair; pre-harvest & post-harvest in WK ; one season only in Papua (2017 & 2018)
- Anthropometry & hemoglobin assessments



Findings

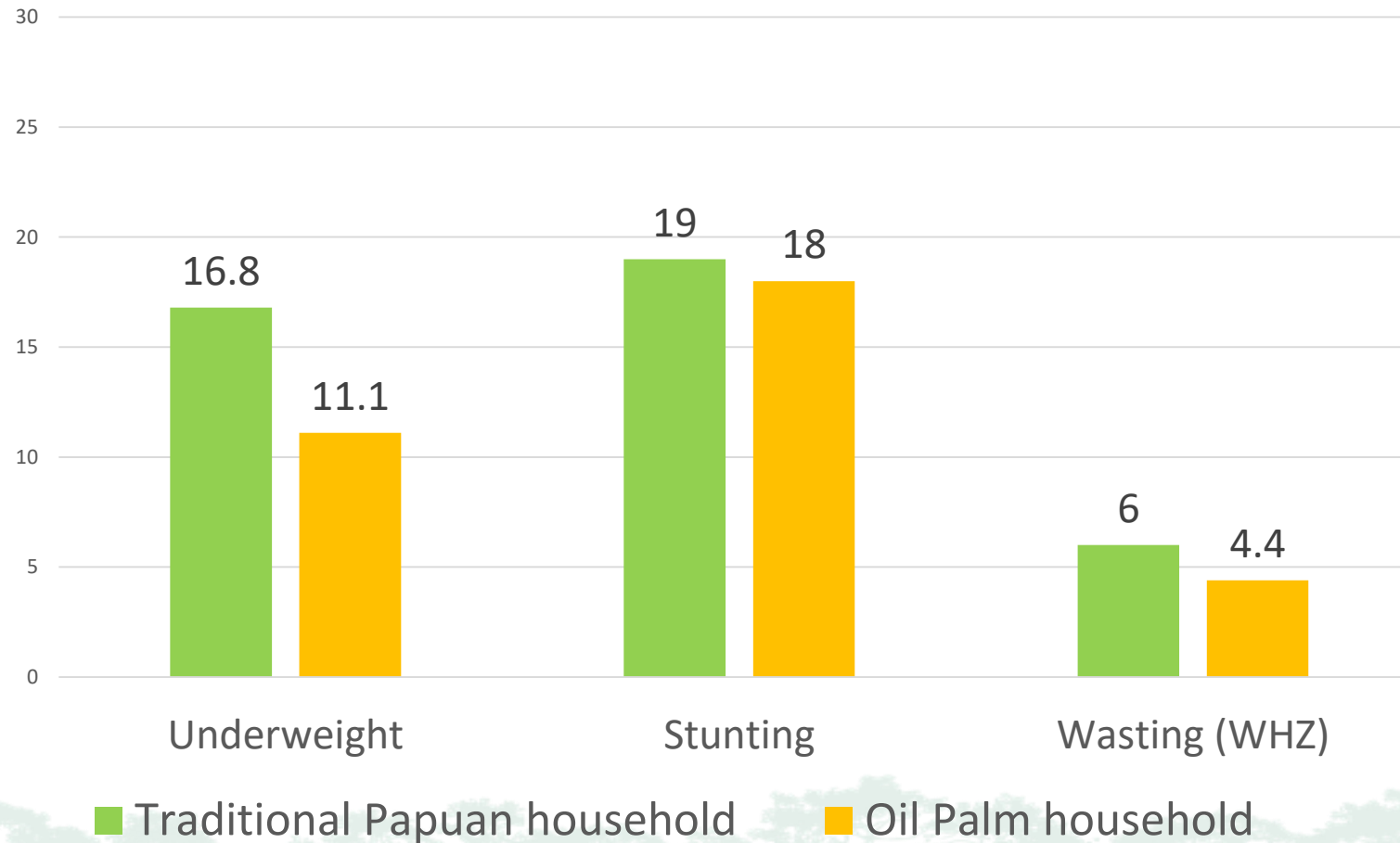
West Kalimantan Children Under 5 (pre & post harvest seasons) nutritional status

* indicates statistical significance



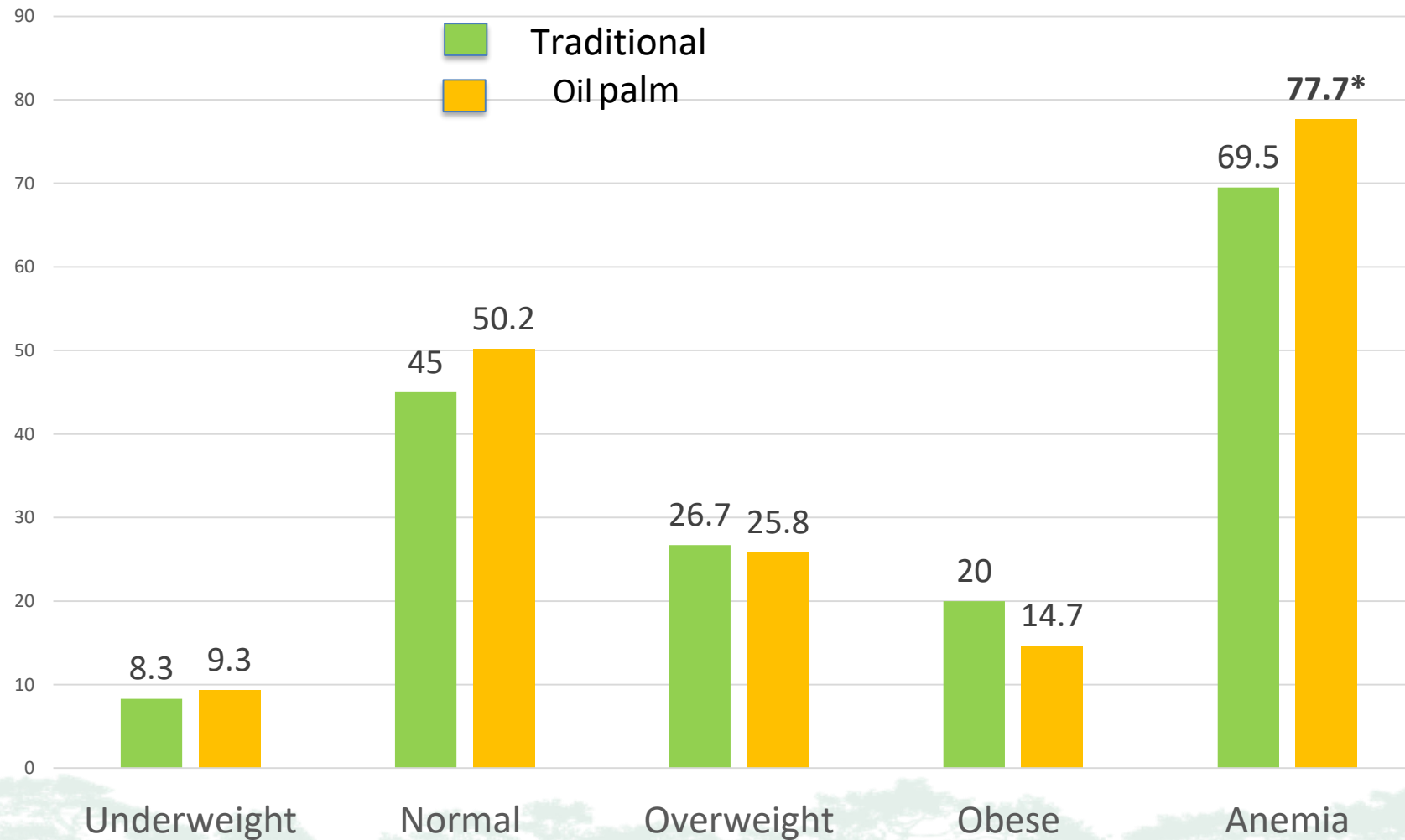
Findings:

Nutritional Status of children under 5 in Papuan sites



Findings: Papuan women

(* : statistically significant)



Food Group Intake Differences for Children under 5 across sites

West Kalimantan			Papua
	Post-Harvest	Pre-harvest	
Traditional > OP	Greens; fruit; fish; cereals	Greens; fruit; fish; 'other veg'; cereals	Tubers, fruit, fish, meat
OP > Traditional	Dairy, eggs, sweets; Highly processed; meat; 'other veg'	Dairy; eggs; sweets; Highly processed;	Cereals, highly processed, eggs. 'other veg'

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Other Differences

- OP households in both sites were wealthier
- Not just food groups, but foods within groups differ
 - In WK site, traditional hhs ate more wild meats; OP hhs ate mostly chicken & sausage
- Staples differed in Papua
 - Traditional hhs ate much more sago; OP hhs mostly ate rice



Photo by Nanning Sujana/CIFOR



The Big Question

How to maintain the positive aspects of traditional diets and take advantage of opportunities brought by commercialization?

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THANKS VERY MUCH!



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