



SUDAN CONFLICT CONFERENCE

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Who prefers What?

Intrahousehold Preferences for Humanitarian Assistance among IDPs in Sudan

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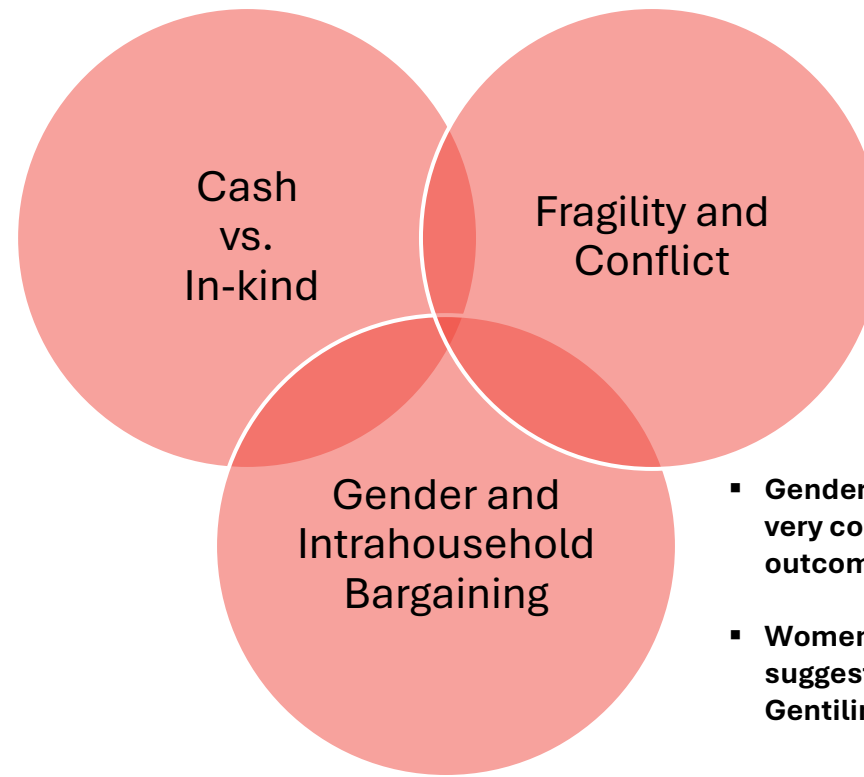
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Introduction and Motivation

Literature Review

- The recent surge in armed conflict in Africa is increasing demand for humanitarian assistance, with complexities in delivery of such assistance, where conflicts limit the reach, breadth and delivery of humanitarian assistance ultimately affecting efficacy (e.g., Ghorpade, 2017, 2020; Lind et al., 2022).
- Humanitarian sector aims to deliver emergency response – however people’s preferences are unidentified given limited information



- Preference for cash is the default, but evidence shows heterogeneous outcomes (Gentilini, 2007; Gentilini, 2016; Gentilini, 2023; Hirvonen et al. 2021).
- In low-income countries amongst vulnerable populations in-kind assistance can improve food security outcomes (Hoddinott et al. 2018; Schwab, 2020).

- Rigorous research on how conflict impacts individuals and households is missing/limited (Abay et al., 2022; Buvinic et al., 2013; Collyer et al., 2024).
- Active conflict and violent contexts can alter behaviors and preferences (Abay et al., 2025; Collyer et al., 2024; Malapit and Brown, 2023).

- Gender specific preferences and intra-household prioritization is very complex and dynamic; complexity drives gender-differentiated outcomes (Duflo 2000; Doss, 2013; Gentilini, 2016).
- Women prefer in-kind and men prefer cash, but anecdotal evidence suggests that intra-household decision making counts (Doss, 2013; Gentilini, 2016).

Research Questions

1. Which modality of assistance do IDPs prefer?
2. Are there (gendered) intrahousehold differences in modality preferences?
3. How does agency and autonomy in decision-making shape these preferences?
4. What other factors explain IDP households' preferences?



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Context and Survey Design

Context of Sudan



- SAF-RSF conflict erupted in April 2023
- Over 9 million internally displaced people (UNHCR, 2025)
- 30 million in need of humanitarian assistance (Humanitarian Action, 2025)
- IDPs (IOM DTM, 2025)
 1. Blue Nile (380,855 individuals)
 2. Gedaref (446,072 individuals)
 3. Kassala (96,675 individuals)

Survey Design and Sample

- Large household survey targeting IDPs; captures food security and consumption, modality preferences, autonomy in decision-making, trust and agency, market access and storage facilities among others..
- Survey was conducted in-person **(CAPI) & builds on WFP's beneficiaries**
- Data collection: July-September 2025
- Distribution Centers: 126
- Sample per distribution center: 18 households/distribution center
- **Full Sample 2307 HH & Couple sample= 1275 HHs**
- Modules asked to both primary male and female in HH:
 - Modality preferences
 - Autonomy and decision-making
 - Others



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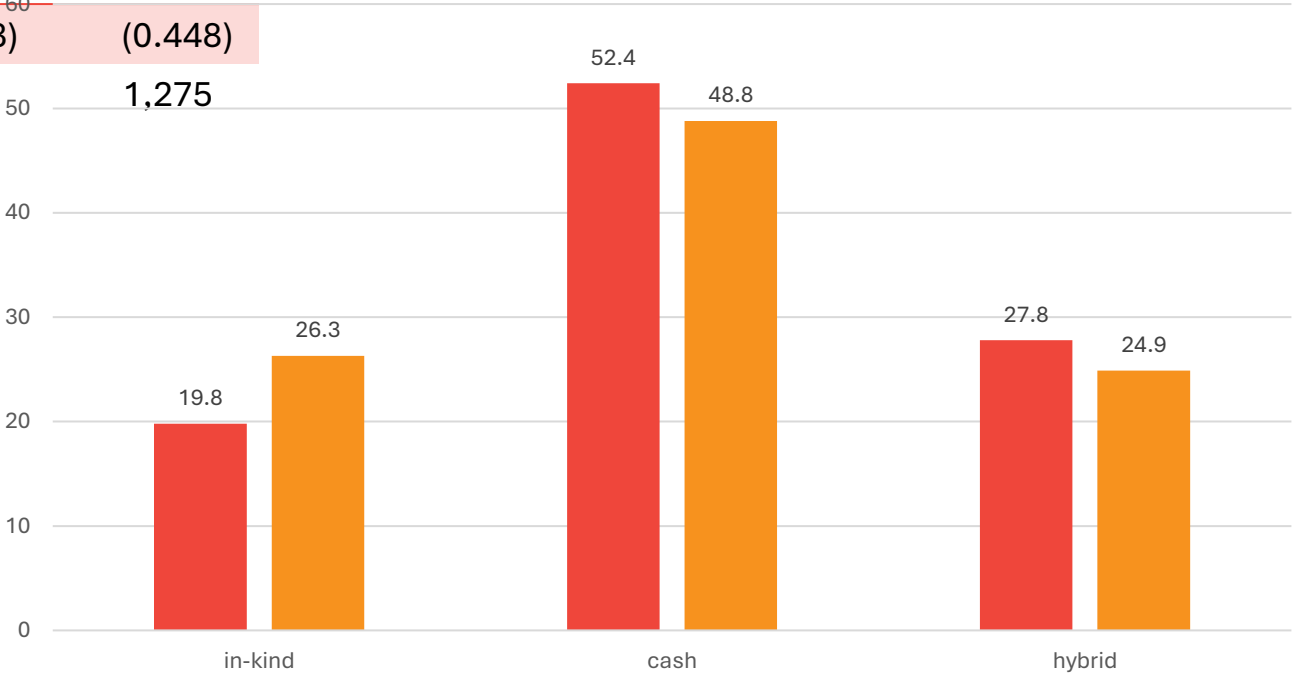
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Descriptive Statistics

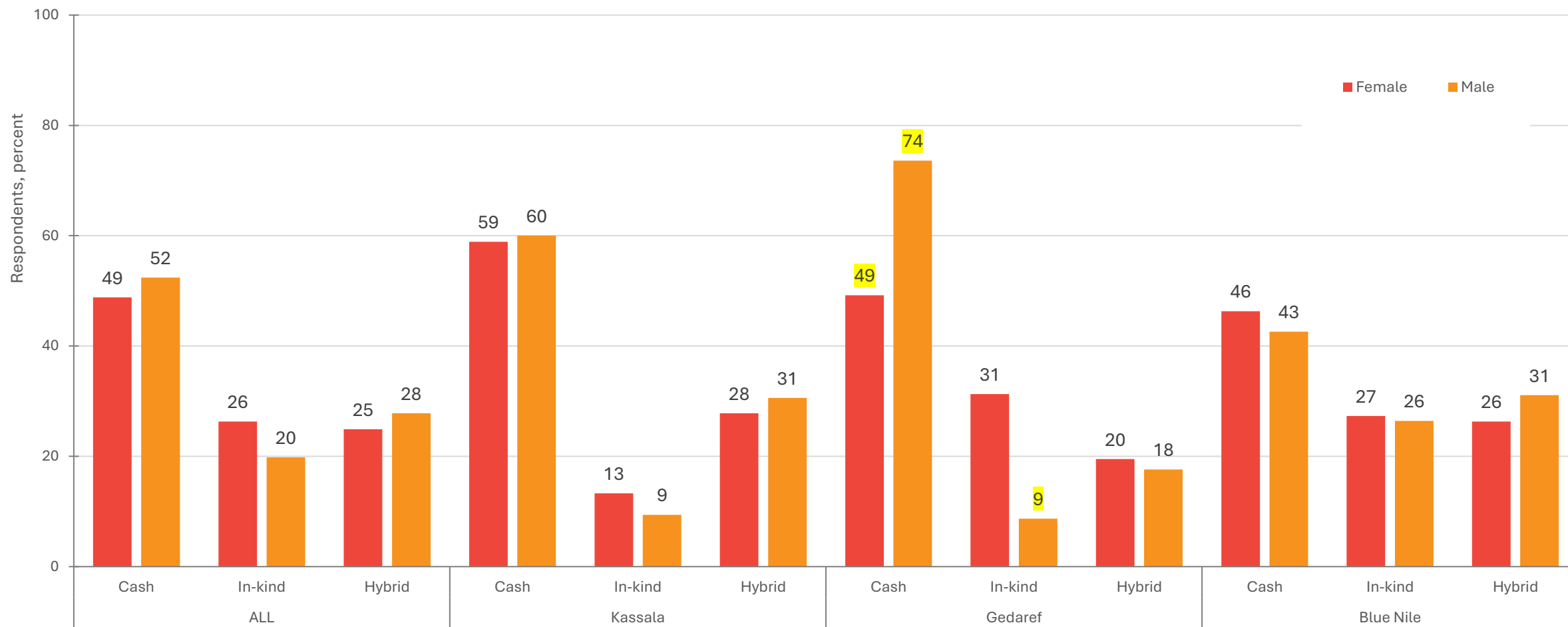
Modality preferences, by share of respondents and gender

Modality Preference	All	Women	Men
Cash	0.506	0.488	0.524
	(0.500)	(0.500)	(0.499)
In-kind	0.230	0.263	0.198
	(0.421)	(0.440)	(0.398)
Hybrid (combination of cash and in-kind)	0.264	0.249	0.278
	(0.440)	(0.433)	(0.448)
Observations	2,550	1,275	1,275



Source: Authors’ calculations and illustrations based on 2025 Sudan Internally Displaced Household Survey data.

Modality preferences by Gender and State



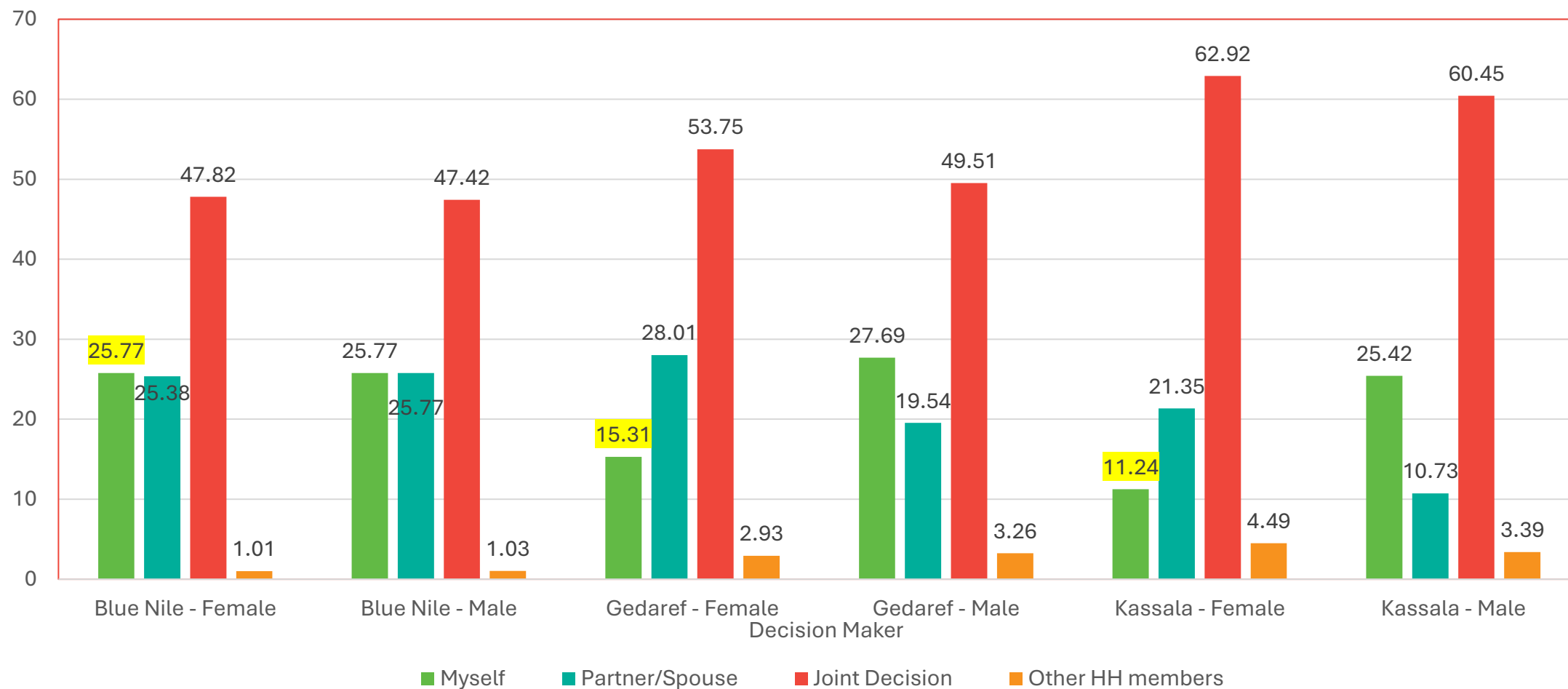
Source: Authors' calculations and illustrations based on 2025 Sudan Internally Displaced Household Survey data.

What is driving those preferences?

Reason for Preference for Aid Modality	Women	Men
In-kind aid modality		
Access to markets is limited	21.0	10.6
Food prices are high in the market	46.4	49.6
To facilitate control over transfer, i.e., from spouse	18.0	20.8
To reduce transaction costs, i.e., costs of going to the market	12.3	15.9
Other	2.4	3.1
Cash aid modality		
Want freedom of choice	65.1	67.0
In-kind food aid may not be nutritious or may be ruined or insufficient	4.5	3.0
To facilitate control over transfer, i.e., from spouse	12.1	11.7
To reduce pressure for sharing the transfer	0.8	0.8
To facilitate savings	4.0	3.5
Easier mobility with the transfer, i.e., cash easier to carry than in-kind aid	11.6	11.7
To protect the aid received from theft, looting, and misappropriation	0.0	0.8
Other	1.7	1.6

Source: Authors' calculations based on 2025 Sudan Internally Displaced Household Survey data.

Autonomy in Decision-making and modality preference, by state and gender



Source: Authors' calculations and illustrations based on 2025 Sudan Internally Displaced Household Survey data.

Autonomy in decision-making, by modality preference and gender

Modality Preference	Cash			In-Kind			Hybrid		
	All	Women	Men	All	Women	Men	All	Women	Men
Myself	53.7	55.6	52.1	21.6	24.3	19.4	24.8	20.2	28.5
Spouse	52.3	48.8	56.3	27.0	30.8	22.6	20.8	20.5	21.2
Joint decision of spouses	48.7	46.3	51.2	21.7	24.9	18.3	29.6	28.8	30.5
Other household members	51.0	48.0	54.2	20.4	24.0	16.7	28.6	28.0	29.2

Source: Authors’ calculations based on 2025 Sudan Internally Displaced Household Survey data.



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Estimation Strategy and Key Findings

Equation Specification

$$Y_{ih} = \alpha_h + \beta_1 gender_{ih} + \varepsilon_{ih} \quad (1)$$

$$Y_{ih} = \alpha_h + \delta_1 gender_{ih} + \delta_2 Autonomy_{ih} + \epsilon_{ih} \quad (2)$$

$$Y_{ih} = \alpha_h + \gamma_1 gender_{ih} + \gamma_2 autonomy_{ih} + \gamma_3 gender_{ih} \# autonomy_{ih} + \varepsilon_{ih} \quad (3)$$

Key Findings: Intrahousehold modality preferences for assistance received by displaced households

	Cash	In-kind	Hybrid
Gender (women = 1)	-0.037	0.065***	-0.028*
	(0.025)	(0.018)	(0.016)
Household fixed effects	Yes	Yes	Yes
R-squared	0.67	0.73	0.68
Observations	2,550	2,550	2,550

Source: Authors' calculations based on 2025 Sudan Internally Displaced Household Survey data.

Notes: *** p<0.01, ** p<0.05, * p<0.1.

Intrahousehold modality preferences and autonomy in decision-making on use of humanitarian assistance in displaced households

	Cash	In-kind	Hybrid
Gender (woman = 1)	-0.038	0.065***	-0.027*
	(0.025)	(0.018)	(0.016)
Decision-maker = 2, partner/spouse	0.010	0.038*	-0.048**
	(0.029)	(0.020)	(0.023)
Decision-maker = 3, joint decision	0.016	-0.023	0.006
	(0.052)	(0.042)	(0.040)
Decision-maker = 4, other HH members	0.165	-0.089	-0.076
	(0.150)	(0.087)	(0.134)
Household fixed effects	Yes	Yes	Yes
R-squared	0.67	0.73	0.68
Observations	2,510	2,510	2,510

Source: Authors' calculations based on 2025 Sudan Internally Displaced Household Survey data.

Notes: *** p<0.01, ** p<0.05, * p<0.1.

Key Findings: Intrahousehold modality preferences and autonomy in decision-making

	Cash	In-kind	Hybrid
Gender (woman = 1)	0.056	0.029	-0.084**
	(0.050)	(0.040)	(0.042)
Decision-maker = 2, spouse	0.085	0.006	-0.090**
	(0.052)	(0.043)	(0.045)
Decision-maker = 3, joint decision by both spouses	0.064	-0.040	-0.024
	(0.061)	(0.050)	(0.047)
Decision-maker = 4, other household members	0.218	-0.108	-0.110
	(0.157)	(0.092)	(0.146)
Woman# Decision-maker = 2, spouse	-0.155*	0.066	0.088
	(0.083)	(0.078)	(0.074)
Woman# Decision-maker = 3, joint decision by both	-0.108*	0.040	0.068
	(0.058)	(0.046)	(0.045)
Woman# Decision-maker = 4, other household members	-0.106	0.037	0.069
	(0.165)	(0.106)	(0.149)
Household fixed effects	Yes	Yes	Yes
R-squared	0.67	0.73	0.68
Observations	2,510	2,510	2,510

Source: Authors' calculations based on 2025 Sudan Internally Displaced Household Survey data.

Notes: *** p<0.01, ** p<0.05, * p<0.1.

Intrahousehold preferences in displaced households and access to markets

	Cash	In-kind	Hybrid
Gender (woman =1)	-0.105***	0.089***	0.015
	(0.040)	(0.032)	(0.028)
Woman#Market Access (Yes =1)	0.098**	-0.035	-0.063**
	(0.041)	(0.033)	(0.030)
Household fixed effects	Yes	Yes	Yes
R-squared	0.67	0.73	0.68
Observations	2,544	2,544	2,544

Source: Authors' calculations based on 2025 Sudan Internally Displaced Household Survey data.

Notes: *** p<0.01, ** p<0.05, * p<0.1.

Preferences, access to markets, and confidence in storage

	Cash	In-kind	Hybrid
Gender (woman =1)	-0.035	0.065***	-0.030*
Decision-maker = 2, spouse	-0.011	0.047**	-0.037*
Decision-maker = 3, joint decision	-0.063**	0.010	0.053**
Decision-maker = 4, other HH members	-0.048	0.002	0.040
Market access in past 30 days, 0/1	0.046*	-0.004	-0.044*
Slightly confident in saving cash (2)	0.046	-0.048	0.002
Moderately confident in saving cash (3)	0.014	-0.086*	0.072*
Very confident in saving cash (4)	0.172***	-0.211***	0.039
Extremely confident in saving cash (5)	0.260***	-0.308***	0.048
Slightly confident in storing in-kind goods (2)	-0.040	0.059*	-0.019
Very confident in storing in-kind goods (4)	-0.005	0.077*	-0.072*
Extremely confident in storing in-kind goods (5)	-0.103**	0.211***	-0.108**
State dummies	Yes	Yes	Yes
Observations	2,525	2,525	2,525
R-squared	0.062	0.077	0.028

Source: Authors' calculations based on 2025 Sudan Internally Displaced Household Survey data.

Notes: *** p<0.01, ** p<0.05, * p<0.1.

Married vs. Single Women Preferences

	In-kind	Cash	Hybrid
Woman with husband resident in the household, 0/1	0.105***	-0.052*	-0.054**
	(0.026)	(0.029)	(0.025)
Constant	0.159***	0.545***	0.296***
	(0.020)	(0.025)	(0.021)
State dummies	Yes	Yes	Yes
R-squared	0.01	0.00	0.00
Observations	1,980	1,980	1,980

Source: Authors' calculations based on 2025 Sudan Internally Displaced Household Survey data.

Notes: *** p<0.01, ** p<0.05, * p<0.1.

Summary and Conclusions

- Aid in cash is the most preferred (still)
- Despite some important differences across states, relative to their husbands, a 7 percentage points higher share of wives report a preference for aid provided in-kind
- Autonomy in decision-making contributes to gendered preferences within household. Females prefer in-kind more when the spouse is deciding.
- Substantial heterogeneity in preferences across states: the intrahousehold differences appear to be strong in more patriarchal states such as Gedaref.
- Market access and confidence in storage also shapes preferences.



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Thank you