

# Time to remit: the effect of remittances on household consumption in India

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## Focus of the research

- Why India?
- Setting the scene: the impact of Covid-19 on migration trends;
- Who receives remittances in India (2005 and 2011-12)?
- Nexus between remittances, food expenditure and food diversity (2005 and 2011-12).



## Covid-19 and the rush to get home

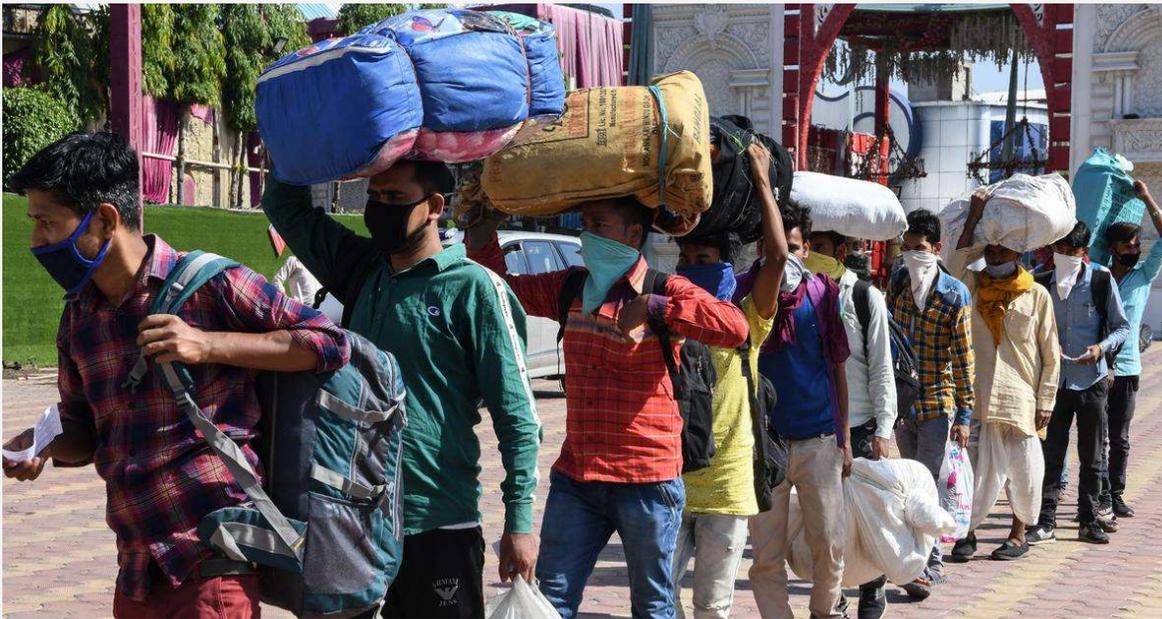
India has a predominant share of internal migration (450 million) and is also the top origin country of international migrants (18 million);

On 24<sup>th</sup> of March 2020, a strict lockdown was imposed by the Indian government (sealing of the inter-state and international borders within 4 hours of its announcement);

On the same day, tens of thousands of migrant workers from Delhi-NCR assembled outside the Anand Vihar Bus Terminal elbowing each other to board the first available bus that would take them to their hometown or village.



## Economic challenges during reverse migration



Rural India was incapable of absorbing the estimated 23 million interstate and intrastate migrant labour who returned home from urban areas and foreign countries, due to the lockdown;

The short and long-term programs put in place by the government arrived later on;

It became evident the crucial role played by national and international remittances in providing means for every day life.

## Literature

- India is a country of contradictions;
- The National Family Health Survey (2015-2016) found that the rates of underweight, stunted and wasted children under five was at 36, 38 and 21% respectively;
- Role of castes;
- Remittances in India.

## Literature

- Migration in the world;
- Remittances in the world;
- Impact of remittances;
- Remittances and food.

## Data

- The data used in the paper comes from India Human Development Survey (IHDS) done in 2005 and 2011-12.
- Dependent Variable: Total food expenditure, Shannon Index (access) and Simpson index (diversity)
- Other food related indicators?

## On the food related indicators

$$\textit{Simpson Index} = 1 - \sum_i (w_i)^2$$

where  $w_i$  indicates the expenditure share for food group  $i$ . The Simpson index ranges between zero -indicating a little diversified diet and one;

$$\textit{Shannon Index} = \sum_i w_i \log(w_i)$$

where  $w_i$  still indicates the expenditure share (or caloric intake share) for food group  $i$ ; the index takes the values from zero to the value of  $\log$  of the highest number of food groups.

# Summary Stats

	2005		2011-12	
	Without remittance	With remittances	Without remittance	With remittances
<b>Household monthly food expenditure (in Rs)</b>	<b>3,296.27</b>	<b>3,212.52</b>	<b>4,179.17</b>	<b>3,816.94</b>
<b>Simpson Index</b>	<b>0.84</b>	<b>0.84</b>	<b>0.85</b>	<b>0.85</b>
<b>Shannon Index</b>	<b>2.15</b>	<b>2.15</b>	<b>2.26</b>	<b>2.24</b>
Household total yearly income (in Rs)	88,073.55	93,808.85	139,220.79	141,439.91
Household total yearly consumption (in Rs)	94,157.97	109,348.62	127,006.89	119,839.74
<b>Amount of remittances (in Rs)</b>	<b>0</b>	<b>33,561.81</b>	<b>0</b>	<b>48,323.84</b>
<b>Perception of conflict amongst caste (in %)</b>	<b>28</b>	<b>30</b>	<b>40</b>	<b>40</b>
Household size	5.21	4.72	5.07	4.58
Dependency ratio (in %)	55	59	41	43
Highest male education (in years)	6.93	5.41	7.89	5.67
Highest female education (in years)	4.61	4.89	5.93	5.29
Household owning land (in %)	41	53	40	55
Household residing in urban area (in %)	36	25	39	25
<i>Caste</i>				
Brahmin (in %)	94	6	75	25
Forward castes (in %)	95	5	87	13
Other backward classes (in %)	95	5	85	15
Dalit (in %)	96	4	88	12
Scheduled tribes (in %)	97	3	90	10
<b>Number of observations</b>	<b>39,474</b>	<b>2,056</b>	<b>27,990</b>	<b>4,531</b>

# Perception of conflict amongst caste

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Caste	Brahmins	Forward Caste	OBC	ST	SC
2005	29	30	31	29	30
2011-12	33	30	34	38	37

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# Methodology

- To estimate a relationship between remittances and the three indicators related to the nutritional food status of the household, the equation below is employed:

$$Y_{it} = \alpha + \delta_1 REMITTANCES_{it} + \delta_2 X_{it} + \mu_i + \varepsilon_{it}$$

where  $Y_{it}$  represents the dependent variable (log of total expenditure on food, Shannon index and Simpson index) for the  $i$ th household in the sample at the  $t$  time period,  $REMITTANCES$  is the log of the amount of remittance household received,  $X_{it}$  is a vector of household characteristics, and  $\mu_i$  is an individual specific unobservable effect and  $\varepsilon_{it}$  is an error term.

## Source of endogeneity

- Self-selection:
  - Heckman two-step procedure;
- Instrumental variable approach:
  - Perception of conflict among castes.

# Who receives remittances?

<i>Variables</i>	<i>Remit (1/0)</i>
<b>Perception of conflict amongst caste</b>	<b>0.13***</b>
<b>Dependency ratio</b>	<b>-0.20**</b>
Highest education male	-0.11***
Highest education female	0.12***
Land ownership	0
Urban/rural	1.25***
Number of rooms	0.21***
No of household members aged 0-14	-0.72***
No of household members aged 15-19	-0.35***
No of household members aged more than 19	-0.32***
<i>Caste</i>	
Brahmin	-0.90***
Upper Caste	-0.35*
Other backward classes	-0.35**
Scheduled tribe	-0.29
Dalits	-
Number of observations	9,322

# Results

## First stage regression of IV model

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<i>Variables</i>	<i>(1)</i> <i>Log of Remittance</i>
Perception of conflict amongst castes	0.14*** (0.03)

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# Results

## IV estimate of the impact of the amount of remittances on food consumption and diversity

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<i>Variables</i>	<i>(1)</i> <i>Log of food</i> <i>expenditure</i>	<i>(2)</i> <i>Simpson Index</i>	<i>(3)</i> <i>Shannon Index</i>
Log of remittance	0.54*** (0.04)	0.03*** (0.01)	0.25*** (0.02)

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## Robustness check

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	(1)	(2)	(3)
<i>Variables</i>	<i>Log of food expenditure</i>	<i>Simpson Index</i>	<i>Shannon Index</i>
Remittances (1/0)	0.12***	0.01***	0.06***

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# Conclusion

- Remittances positively affect expenditure on food and improve diversity of food;
  - Increase in the income through remittances eases budget constraints and enhances the household capacity to spend more on food;
  - Along with remittances, migrants may also bring knowledge of health and nutrition which can improve food diversity;
  - In the absence of the male head of the household (approximately 80% of the migrants are the male head of the household), female may spend more on food and less for entertainment (Quisumbing and McClafferty, 2006).

## Policy implication

- The 'king is naked'; how Indian household economy over-relies on remittances;
- Failure of the state social system in the presence of a shock;
- There is a need for recognising the role that remittances play in affecting the food consumption patterns;
- There is a need for improving this channel by reducing the transaction cost of these remittances and providing resources for migration to the places of opportunities;
- It is important to keep in mind that migration of (male) household member increases the livelihood burden on those members who are left behind -especially women. This could negatively impact the growth of those children in the household by reducing the available time and the quality of childcare.

# Future research

Reverse migration – covid 19;

Use different measures of nutrition (food count, food categories);

Suggestions and comments?

Thank you



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Households living in regions experiencing conflict amongst caste (in %)	28	30	40	40
Household size	5.21	4.72	5.07	4.58
No of household members aged 0-14	1.65	1.51	1.32	1.28
No of household members aged 15-19	0.74	0.67	0.63	0.55
No of household members aged more than 19	2.80	2.53	3.11	2.74
Dependency ratio (in %)	55	59	41	43
Highest male education (in years)	6.93	5.41	7.89	5.67
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