UNIVERSITY OF HOHENHEIM

FACULTY OF AGRICULTURAL SCIENCES

Institute of Agricultural Sciences in the Tropics (Hans-Ruthenberg Institute)
Chair of Social and Institutional Change in Agricultural Development

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The Road Half-Travelled: Governance Reforms of Food and Nutrition Programs in India

Dissertation

Submitted in fulfilment of the requirement for the degree
"Doktor der Agrarwissenschaften"
(Dr.sc.agr. /Ph.D. in Agricultural Sciences)

to the Faculty of Agricultural Sciences

submitted by

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Born in Ranny, India

November 2018

This thesis was accepted as a doctoral dissertation in fulfilment of the requirements for the degree "Doctor of Agricultural Sciences" (Dr.sc.agr.) by the Faculty of Agricultural Sciences at the University of Hohenheim.

Date of thesis submission: November 21, 2018

Date of oral examination: July 1, 2019

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ACKNOWLEDGEMENTS

I would first like to thank the German Academic Exchange Service (DAAD) and Professor Regina Birner for offering me this opportunity to pursue my doctoral studies at the University of Hohenheim. The interplay of food security, nutrition, rights and governance have fueled my interest for the better part of a decade. Working with Professor Birner helped me understand new dimensions of these topics, and her support of every opportunity to hone my skills and research was extremely rewarding. I sincerely thank the members of my doctoral committee, Professor Madhushree Sekher, Dr. Kirsten Urban and Professor Andrea Knierim, for their time and review of my thesis. I am also grateful to Dr. Saurabh Gupta who offered guidance and feedback on various aspects of my work.

The actual writing process unfolded in fits and spurts, and I am grateful to all those who extended their encouragement along the way. This may have been in brief messages to check in, ensuring my own nutrition security through generous meals, and those who lent a patient ear to my ramblings. My deepest thanks to Thanammal Ravichandran, Fanos Mekonnen Birke, Thomas Pircher, Khondokar Khumayun Kabir, Adu-Gyamfi Poku, Mihaela Constantin, Athena Birkenberg, and Rajiv Verma. A special mention to Christine Bosch, who graciously entertained a last-minute request to translate the executive summary. My sincere gratitude to Lilli Scheiterle, who throughout my time in Germany was first on the scene to extinguish any crisis at any hour of the day; and my thanks to Denise Güttler, Verena Gründler and Linn Doppler for their bounty of patience to help in all matters ranging from figuring out postage to planning a defense.

This work allowed me to travel through remote pockets of India, providing me an incomparable education and rare glimpses of a homeland that has often eluded me. I am greatly indebted to the generosity of so many people I met along the way during my fieldwork. I thank the respondents of this study who allowed me to step into their homes and lives to share their experiences. None of this would have been possible without the extensive support of several individuals and organizations in Jharkhand, Madhya Pradesh and New Delhi, all of whom found time to aid me despite their own busy schedules and work commitments. In particular, my thanks to Sajjad Hassan, Biraj Patnaik, Amrita Johri, Shabina Siddiqui, Aditi Diwedi, Anjali Bharadwaj, Ankita Aggarwal, Mr. Balram, Jean Drèze, Mr. C. Yadav, Ms. Kunti, Mr. T Mohammed, Deepak Bara, Shikha Pahariya, Suhagini, Ramsakhi, Monu Morris, Justin John, Father Biju Philip, Jyoti Patel, Father Anto, Father Shaiju, the Sisters of Sanjeevani Convent and Dr. Rahul Chandroul. I am as thankful to all of you for sparing your time and resources to assist me, as I am inspired by the fervor with which you work for various community and social causes against relentless odds.

Through my travels and research, the privileges and opportunities I have enjoyed to come this far were often brought into stark relief. I thank my family for their patience and sacrifices which ensured not only my personal wellbeing but allowed me to explore new life paths along the way. Lastly, this journey may never have taken root had it not been for the encouragement of my husband, Rajesh. His unwavering optimism, advice and faith have been a bedrock of support throughout this endeavor. Thank you.

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EXECUTIVE SUMMARY

Since its founding as a social welfare state, India has been meandering through "a life of contradictions" when it comes to social and economic equality. A potent indicator of this reality is the state of food and nutrition security across the country. India's meager progress comes on the heels of rapid economic growth over the last two decades and a slew of public programs have attempted to address the multi-faceted nature of food and nutrition security. These efforts have included subsidized grains for households through the Targeted Public Distribution System (TPDS), village health, nutrition and education programming through the Integrated Child Development Services (ICDS), and Nutrition Rehabilitation Centers (NRCs) to treat cases of severe acute malnutrition (SAM). Though these programs have been scaled across the country, numerous governance challenges and institutional failures have persisted.

The latest development in India's food and nutrition policy landscape is the National Food Security Act (hereafter referred to as the Act) of 2013, which leverages existing national programs, including the TPDS and ICDS, to grant legal entitlements to nearly 70% of the total population. This Act was the fruit of a rights-based movement in India that demanded for over a decade to codify social and economic rights. However, the question arises as to whether this new Act been able to achieve its goal to ensure food and nutrition security by strengthening the governance of these programs? This is the central question of the present thesis.

This thesis investigates how the Act has reformed the implementation of food and nutrition programs in the states of Jharkhand, Madhya Pradesh and the capital of New Delhi. The four key objectives of this study are to investigate 1) what changes are prescribed by the Act; 2) how effective these reforms have been in addressing persistent governance challenges; 3) what challenges remain and why; and 4) what strategies could be used to address these gaps. A qualitative case study approach was applied, which involved the following data collection methods: key informant and in-depth interviews, focus group discussions, participant observation, matrix ranking and process net-mapping, an innovative participatory tool that maps complex institutional processes and actors.

This thesis is comprised of nine chapters. The first chapter introduces the puzzle of India's nutritional status and explores why government efforts to tackle this problem have had tepid results. The second chapter presents the conceptual framework that defines governance challenges and an institutional framework of demand and supply side factors that contribute to effective policy and programming. Chapters three and four present an overview of the TPDS, ICDS and NRCs, and review the existing literature on the governance issues of these programs. Chapter 5 lays out the study design, methods and ethical protocols. Chapters six through eight explore each of the three programs and present key findings across the selected study sites. The last chapter presents cross-cutting conclusions for these programs in the wake of the Act and proposes a way forward to address institutional gaps in tackling food and nutrition security.

The Act stipulates three core reforms for the TPDS: delegating the distribution of subsidized grains to community groups or collectives, such as women's self-help groups and cooperatives; use of modern technologies to better manage the program; and the establishment of a grievance redressal mechanism. This study reveals that though the reforms have the potential to address institutional gaps, they have had mixed results. Women's self-help groups have improved access to grains for many communities as they are locally embedded. However, the persistent problems of bribes and corruption persist on many levels, which force these groups to cut back on the grains they can distribute. In all three study sites, improved technologies such as using Information and Communication Technologies (ICTs) for reporting had significant problems for the beneficiaries and the distributors alike, due to poor ICT infrastructure. Manual reporting is still required, which keeps the channels for extortion open. Grievance

redressal was found to be nearly nonexistent in all three study sites, and most respondents were not even aware of their legal rights or the relevant authority to direct their grievances.

Unlike in case of the TPDS, the Act lays out few reforms for the ICDS, leaving its implementation at the discretion of individual states. The Act makes nutrition supplementation a legal entitlement for pregnant and lactating women, as well as children up to the age of 14. The ICDS supplement comes in the form of freshly prepared, nutrition-sensitive meals for children 3-6 years old. For infants and women, supplementation is in the form of take-home fortified food. In Jharkhand, ICDS workers reported having to still pay monthly bribes to senior officials to process their expenses. Both beneficiaries and ICDS workers pointed out that the take-home packets had failed both in terms of meeting local preferences and in reaching the target beneficiaries. In Madhya Pradesh, food preparation is delegated to local women's self-help groups, which meant less funds are coming to ICDS workers, thus reducing the pot from which officials could expect bribes. However, many self-help groups report gaps in payment, forcing some to completely cease their ICDS meal operations.

While the first two programs target food, a life-cycle approach must recognize the diverse determinants of good nutrition. To better understand the pathways that lead to poor nutrition, mothers of children diagnosed with SAM and admitted to NRCs were interviewed in Jharkhand and Madhya Pradesh. Participant observation and in-depth interviews with both patients and medical staff shed light on the operations of these facilities, as well as the experience of admitted mothers. Follow-up interviews were also conducted with discharged patients to understand how their NRC admission changed their understanding and approach to their child's health and nutritional needs. The study showed that most NRCs suffered from insufficient staff and budgets to effectively rehabilitate both mother and child. Though the core purpose of such facilities is the education of the mother, most staff members focused on administrative reporting and monitoring rather than understanding individual cases and conditions of a child's poor nutritional status. Prevalence of low education, child marriage and irregular livelihoods was high among the mothers.

The three programs covered in this study, TPDS, ICDS and NRCs, attempt to address different stages of faltering nutrition in India. The Act now provides a legal means to avail benefits of the TPDS and ICDS, but—as shown by this study—it has failed to eliminate the governance challenges embedded in these programs. Technology has been hailed as a silver bullet for the TPDS, however technology is only a tool within a larger program that runs under the supervision of officials who authorize grain distribution. The study proved that, consequently, individuals still interact with officials who exert their power and this ultimately translates into cutting grains to beneficiaries. Furthermore, in areas where electricity itself is unreliable, it is unrealistic to expect ICT solutions, such as electronic records, to be fail- and fool-proof. Transferring authority to community-based groups, which was another reform strategy, had mixed results. There is greater involvement of women in both the TPDS and ICDS, which has improved access for beneficiaries. However, these groups remain at the mercy of administrators and officials who can leverage their authority. The NRC study highlights how symptoms of poor nutrition run deep in Indian society and require a more holistic approach to improve the status of those who are held primarily responsible for nutrition – women. The combination of poverty and gender norms that characterize many of the communities significantly handicaps all programs that expect women to transform their child's health outcomes, when their own health and nutrition status are often compromised. Greater initiative is required to improve opportunities for young girls and women, whether it be education, antenatal and health care services and livelihood security. Finally, the right to food requires an aware public that understands their entitlements and the responsibilities of the state to provide these benefits, for which a grievance mechanism is essential. Education campaigns, public hearings and grievance camps are measures within civil society that can ignite awareness, which is at the foundation of a successful rights-based approach and nutrition secure future.

ZUSAMMENFASSUNG

Seit der Gründung des Wohlfahrtsstaates erlebt Indien eine Reihe von Widersprüchen, was die soziale und wirtschaftliche Gerechtigkeit des Landes angeht. Ein aussagekräftiger Indikator dieser Realität ist der Stand der Ernährungsicherheit im Land. Indiens dürftiger Fortschritt in der Ernährungssicherung folgt einer zwei Jahrzehnte andauernden Periode rasantem Wirtschaftswachstum, sowie einer Reihe von öffentlichen Programmen, die versuchen, die vielschichtigen Aspekte von Ernährung zu adressieren. Zu diesen Bemühungen gehören subventioniertes Getreide für Haushalte durch das gezielte öffentliche Vergabesystem TPDS, dörfliche Gesundheits-, Ernährungs- und Bildungsprogramme durch die Integrierten Dienstleistungen zur Entwicklung von Kindern ICDS und Rehabilitierungszentren für Fälle von schwerer akuter Mangelernährung (NRCs). Obwohl diese Programme auf ganz Indien ausgeweitet wurden, bestehen weiterhin institutionelle Mängel sowie zahlreiche Governance-Herausforderungen. Die jüngste Entwicklung in der Indischen Ernährungspolitik ist das Gesetz zur nationalen Ernährungssicherheit NFSA aus dem Jahr 2013. Das NFSA nutzt zwei bestehende nationale Programme, TPDS und ICDS, um fast 70% der Bevölkerung Rechtsansprüche zu gewähren. Dieses Gesetz war das Ergebnis einer größeren rechtebasierten Bewegung in Indien, die seit über einem Jahrzehnt das Ziel hat, soziale und wirtschaftliche Rechte zu kodifizieren. Es stellt sich die Frage, ob dieses neue Gesetz es ermöglicht hat, durch eine Stärkung der Governance der bestehenden Programme einen Lebenszyklusansatz in der Ernährungssicherung zu etablieren.

Diese Doktorarbeit verwendet einen Ansatz vergleichender Fallstudien, um zu untersuchen, wie das NFSA die Umsetzung der Ernährungsprogramme in den Staaten Jharkhand, Madhya Pradesh und der Hauptstadt Neu Delhi reformiert hat. Die vier Hauptziele der Dissertation sind: 1) die Änderungen, die durch das NFSA vorgeschrieben wurden, zu beschreiben 2) die Effektivität dieser Reformen bei der Bewältigung von Governance-Herausforderungen zu erklären, 3) die weiterhin bestehenden Governanceprobleme und Gründe dafür zu erklären, und 4) Strategien zu erarbeiten, die zur Behebung dieser Defizite beitragen können.

Diese vier Aspekte wurden untersucht mittels Befragung von Schlüsselpersonen, Tiefeninterviews, Fokusgruppendiskussionen, teilnehmender Beobachtung, Matrix-Ranking und Prozessnetzkartierung (process net-mapping), ein innovatives und partizipatives Instrument, das komplexe institutionelle Prozesse und Akteure abbildet.

Die vorliegende Doktorarbeit besteht aus neun Kapiteln. Das erste Kapitel gibt eine Einleitung in die Rätselhaftigkeit der Ernährungslage in Indien, und warum staatliche Bemühungen dieses Problem anzugehen, nur dürftige Ergebnisse erzielt haben. Das zweite Kapitel stellt einen konzeptionellen Rahmen bezüglich Governance-Herausforderungen und einen institutionellen Rahmen bezüglich Nachfrage- und Angebotsfaktoren, die zu wirkungsvollen Politikmaßnahmen und Programmgestaltung beitragen, dar. Kapitel drei und vier geben einen Überblick über TPDS, ICDS und NRCs, und über die bestehende Literatur bezüglich der Governance-Herausforderungen dieser drei Programme. Kapitel fünf beschreibt das Studiendesign, die angewandten Methoden und die Forschungsprotokolle. Kapitel sechs bis acht untersuchen jeweils eins der drei Programme und erklären Schlüsselergebnisse über die drei ausgewählten Untersuchungsstandorte hinweg. Die Dissertation schließt mit einer übergreifenden Zusammenfassung für diese Programme vor dem Hintergrund des neuen

Gesetzes und gibt wegweisende Vorschläge wie man diese institutionellen Defizite zur Verbesserung der Ernährungssicherheit adressiert.

Das NFSA sieht drei Kernreformen für das TPDS vor: die Übertragung der Vergabe von subventioniertem Getreide auf Gruppen oder Gemeinschaften, wie Frauenselbsthilfegruppen (SHGs), die Nutzung von technologischen Lösungen, und die Einrichtung eines Beschwerdemechanismus. Die Studie zeigt auf, dass, obwohl die Reformen Potenzial zur Behebung der institutionellen Defizite haben, sie gemischte Ergebnisse erzielt haben. Da Frauenselbsthilfegruppen lokal eingebettet sind, haben sie den Zugang zu Getreide in vielen Dörfern verbessert. Die uralten Probleme wie Bestechung und Korruption bleiben auf vielen Ebenen weiterhin bestehen, was die Gruppen dazu zwingt, die Menge an ausgegebenem Getreide zu reduzieren. Aufgrund schlechter IT-Infrastruktur haben technologische Lösungen an allen drei Standorten Probleme sowohl für Leistungsempfänger als auch für Getreidelieferanten verursacht. Physische oder manuelle Rechnungslegung ist nach wie vor erforderlich, was Bestechungszahlungen möglich macht. Ein Beschwerdeverfahren gibt es quasi an keinem der drei Untersuchungsstandorten, und die Mehrzahl der Befragten kannte nicht einmal ihre gesetzlichen Rechte oder die zuständige Behörde, an die sie ihre Beschwerden richten könnten.

Im Gegensatz zum TPDS sieht das Gesetz wenige Reformen für die ICDS vor, deren Umsetzung den einzelnen Staaten überlassen bleibt. Es beinhaltet einen Rechtsanspruch auf Nahrungsergänzung für schwangere und stillende Frauen, und für Kinder bis zum Alter von 14 Jahren. Die ICDS-Nahrungsergänzung für Kinder von 3-6 Jahren wird in Form von frisch zubereiteten, nährstoffreichen Mahlzeiten angeboten. Für Säuglinge und Frauen erfolgt die Nahrungsergänzung in Form von angereicherter Nahrung. In Jharkhand berichteten ICDS-Arbeiter, dass sie immer noch monatliche Bestechungsgelder an leitende Beamte zahlen mussten, damit diese ihre Kosten zur Übernahme bearbeiten. Sowohl Leistungsempfänger als auch ICDS-Angestellte gaben an, dass die Essenspakete zur Mitnahme in die Haushalte sowohl hinsichtlich der Erfüllung der lokalen Präferenzen als auch hinsichtlich der Erreichung der Zielgruppen gescheitert seien. In Madhya Pradesh wird die Zubereitung von Speisen an lokale Frauenselbsthilfegruppen delegiert, was bedeutet, dass weniger Geld an die ICDS-Angestellten fließt und der Topf, von dem Beamte Bestechungsgelder erwarten können, kleiner wird. Viele Gruppen melden jedoch Zahlungslücken, so dass einige gezwungen sind, die Zubereitung und Ausgabe von Mahlzeiten einzustellen.

Während die ersten beiden Programme auf Nahrungsmittel abzielen, muss ein Lebenszyklusansatz die verschiedenen Determinanten von Ernährung anerkennen. Um die Wege, die zu Mangelernährung führen, besser zu verstehen, wurden im Rahmen dieser Dissertation Mütter von Kindern befragt, bei denen eine schwere akute Mangelernährung diagnostiziert und die zu NRCs in Jharkhand und Madhya Pradesh zugelassen wurden. Teilnehmende Beobachtung und Tiefeninterviews mit Patienten und medizinischem Personal beleuchten den Betrieb dieser Einrichtungen sowie die Erfahrungen aufgenommener Mütter. Weiterhin wurden Folgeinterviews mit entlassenen Patienten durchgeführt, um zu verstehen, wie ihre Aufnahme in ein NRC ihr Verständnis und ihre Handlungsansätze bezüglich der Gesundheits- und Ernährungsbedürfnisse ihres Kindes verändert hat. Die meisten NRCs litten unter Personalmangel und einem unzureichendem Budget, um Mutter und Kind effektiv zu rehabilitieren. Obwohl der Kernzweck solcher Einrichtungen die Ausbildung der Mutter ist, konzentrierten sich eine Mehrzahl der Mitarbeiter auf die administrative Berichterstattung und Rechnungslegung, anstatt die individuellen Fälle und Bedingungen des schlechten Ernährungsstatus eines Kindes zu verstehen.

Bei den befragten Mütter war die Prävalenz von geringer Bildung, Kinderheirat und ungesicherter Lebensgrundlagen hoch.

Sowohl TPDS als auch ICDS und NRCs versuchen, unterschiedliche Aspekte der Ernährungssicherheit in Indien zu adressieren. Das NFSA bietet nun ein rechtliches Mittel, um die Vorteile von TPDS und ICDS zu nutzen, jedoch hat es das Gesetz versäumt, die in vielen dieser Gemeinschaften verankerten Governance-Herausforderungen zu beseitigen. Technologische Lösungen wurden als Königsweg für das TPDS gefeiert, aber Technologie ist nur ein Werkzeug innerhalb eines größeren Programms, das unter der Aufsicht von Beamten läuft, die die Getreideausgabe genehmigen. Folglich interagieren Einzelpersonen immer noch mit Beamten, die ihre Macht ausüben, was bedeutet, dass sie den Leistungsempfängern Getreide kürzen können, ohne dass dies im System erfasst wird. Darüber hinaus ist es in Gebieten mit unzuverlässiger Stromversorgung unrealistisch zu erwarten, dass technologische Lösungen stets funktionieren. Gemeinschaftsgruppen stellen eine gemischte Realität dar. Obwohl eine stärkere Beteiligung von Frauen sowohl beim TPDS als auch bei den ICDS den Zugang für die Leistungsempfänger verbessert hat, sind diese Gruppen immer noch der Gnade von Verwaltern und Beamten ausgeliefert, die ihre Autorität nutzen können. Selbst bei funktionierenden Ernährungsprogrammen zeigt die NRC-Studie, wie die Symptome von Mangelernährung tief verwurzelt in der indischen Gesellschaft sind und einen ganzheitlicheren Ansatz erfordern, um den Status derjenigen zu verbessern, die in erster Linie für die Ernährung verantwortlich sind - arme Frauen. Die Kombination von Armut und Geschlechternormen, die in vielen dieser Gemeinschaften eine Rolle spielt, behindert alle diese Programme, die von Frauen erwarten, dass sie den Gesundheitszustand ihres Kindes verbessern, wenn ihr eigener Gesundheits- und Ernährungszustand beeinträchtigt ist, erheblich. Es bedarf größerer Initiativen, um die Chancen für junge Mädchen und Frauen zu verbessern, sei es in den Bereichen Bildung, Schwangerschaftsvorsorge und anderer Gesundheitsdienste, sowie Existenzsicherung. Schließlich erfordert das Recht auf Nahrung eine informierte Öffentlichkeit, die ihre Leistungsansprüche und die Verantwortung des Staates in der Leistungserbringung versteht. Dafür ist ein Beschwerdeverfahren unerlässlich. Aufklärungskampagnen, öffentliche Anhörungen und Beschwerdezentren sind bestehende Maßnahmen der Zivilgesellschaft, um das Bewusstsein zu schärfen, was die Grundlage für einen erfolgreichen rechtebasierten Ansatz und eine ernährungssichere Zukunft darstellt.

TABLES

FIGURES

ACRONYMS AND ABBREVIATIONS

APL	Above the Poverty Line
AAY	*Antyodaya Anna Yojana*
ADM	Assistant District Magistrate
AHS	Annual Health Survey
AM	Ante Meridiem
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	*Anganwadi C*enter
AWH	*Anganwadi* Helper
AWW	*Anganwadi* Worker
BENF	Beneficiaries
BPL	Below the Poverty Line
CAG	Comptroller and Auditor General
CDPO	Child Development Project/Program Officer
CFPS	Co-operative Society run Fair Price Shop
COREQ	Consolidated Criteria for Reporting Qualitative Research
CS	Civil Society
CT	Caretaker
DDO	District Development Officer
DM	District Magistrate
DPO	District Program/Project Officer
DSO	District Supply Officer
DSO/A	District Supply Officer/Assistant
EAG	Empowered Action Group
ePOS	Electronic Point of Sale
FCI	Food Corporation of India
FD	Feeding Demonstrator
FGD	Focus Group Discussion(s)

FPS	Fair Price Shop(s)
GM	Go-Down Manager
ICDS	Integrated Child Development Services
INR	Indian National Rupee
JSFCSC	Jharkhand State Food and Civil Supplies Corporation
LEO	Lady Extension Officer
LS	Lady Supervisor
MDM	Mid-Day Meal Scheme
MFPS	Male-run Fair Price Shop
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MO	Marketing Officer
MOIC	Medical Officer-in-Charge
MPSCSC	Madhya Pradesh State Civil Supplies Corporation
MTC	Malnutrition Treatment Center
MUAC	Mid-Upper Arm Circumference
NFHS	National Family Health Survey
NFSA	National Food Security Act
NGO	Non-governmental Organization
NRC	Nutrition Rehabilitation Center
ODF	Open Defecation Free
PCM	Protein Calorie Malnutrition
PD	Positive Deviance
PDS	Public Distribution System
PHC	Primary Healthcare Center
PUCL	People's Union for Civil Liberties
RBSK	Rashtriya Bal Swasthya Karyakram
RSoC	Rapid Survey on Children
SAM	Severe Acute Malnutrition
SD	Standard Deviation
SDM	Sub-Divisional Magistrate
SHG	Self-help Group(s)

THR	Take-home Ration
TPDS	Targeted Public Distribution System
UNICEF	United Nations Children's Fund
VHN	Village Health and Nutrition
WFPS	Women Self-help Group run Fair Price Shop
WHO	World Health Organization

1. INTRODUCTION

1.1 State of Nutrition

> *On the 26th of January 1950, we are going to enter into a life of contradictions. In politics we will have equality and in social and economic life we will have inequality. In politics we will be recognizing the principle of one man one vote and one vote one value. In our social and economic life, we shall, by reason of our social and economic structure, continue to deny the principle of one man one value. How long shall we continue to live this life of contradictions? How long shall we continue to deny equality in our social and economic life? If we continue to deny it for long, we will do so only by putting our political democracy in peril.*
>
> Dr. B.R. Ambedkar
> Chairman of the Drafting Committee of the Indian Constitution

In the seven decades since these remarks were delivered on the eve of India's passage of its Constitution, millions of citizens continue to battle a life of contradictions. One of the most glaring indicators of this reality is the state of food and nutrition security across the country, which has been alternatingly called "an enigma" (Ramalingaswami et al., 1996), "a curse" (Singh, 2008) and a "national shame" (IANS, 2012). India ranked 103 out of 119 countries in the 2018 Global Hunger Index, and the most recent round of the National Family Health Survey (International Institute for Population Sciences and ICF 2017) shows that stunting and wasting still afflict 38.4% and 21% of children under the age of five, respectively. This meager progress has come despite high rates of economic growth for over two decades (Subramanyam et al., 2011) and India's implementation of several large-scale social programs targeting different aspects of nutritional well-being (Drèze & Khera, 2017). Most notably, these have included the Targeted Public Distribution System (TPDS), the Integrated Child Development Services (ICDS) and more recently, the establishment of nutrition rehabilitation centers (NRCs) in government medical facilities to treat severe acute malnutrition (SAM).

Though national progress in nutrition and health indicators such as stunting and wasting has been slower than desired, the experiences of individual states within India have varied significantly. Different states have experimented with interventions including food fortification (Fiedler et al., 2012), digitization of public programs (Mittal & Sengupta, 2018), daily lunch programs and involving community groups and collectives in food programs (Kumar et al., 2018). The TPDS and ICDS have seen a multitude of reforms over their many decades, both at

central and state levels, however persistent challenges have hindered greater progress. At the forefront of factors contributing to this inadequate performance is the spate of governance challenges that cripple their implementation, ranging from budgetary constraints and financial mismanagement to systemic corruption and poor accountability mechanisms (Birner & Sekher, 2018; Harriss & Kohli, 2009; Khera, 2011).

A new chapter in these efforts came with the National Food Security Act of 2013 (NFSA, hereafter "the Act"), which made subsidized grains in the TPDS and nutrition supplementation under the ICDS, legal entitlements. The Act covers 75 percent of rural households, 50 percent of urban households, and also includes measures for empowerment and accountability, such as appointing the eldest female member as head of the household for collecting grains, setting up a tiered grievance redressal mechanism, and using technology to increase transparency (Government of India, 2013).

In the years since the Act's passage, it has experienced uneven rollout across the country and it is unclear whether this rights-based approach has translated into actual benefits for all eligible households. Earlier studies have pointed to the limitations of vigilance-focused governance reforms in implementing social program like the ICDS (Verma et al., 2018), as often the introduction of more actors for vigilance only stretches the number of pay-outs or bribes. Technology and e-governance have also been at the forefront of various government efforts, within India and abroad. While on one hand, these tools can improve transparency and accountability (Carr & Jago, 2014; Hanna, 2017), others argue that technology is only as effective as the larger system within which it is employed (Peixoto & Fox, 2016; Toyama, 2015). Other work identifies that entitlements or policy changes alone are not enough to alter the power dynamics within a community and requires greater mobilization, awareness building and political will to translate rhetoric to tangible benefits (George & Branchini, 2017; Ruparelia, 2013; Verma et al., 2017). Therefore the impact of such reforms in a new rights-based framework on governance challenges is an ongoing process, requiring more research to fill the gap in understanding the evolving dynamics.

To this end, India provides a novel case study as it has been at the forefront of a rights-based movement for the better part of two decades on various socioeconomic rights. The country already has a range of food and nutrition programs, and the NFSA outlines reforms to ensure a multi-tiered system of governance across the central and state governments, to local

villages to reach individuals. Furthermore, India's diversity, particularly with regard to the adaption of various social programs and their implementation, lend itself to a comparative case study that can provide insights from contrasting state experiences and contexts. This allows for comparison across different state settings but also across programs addressing food and nutrition security.

1.2 Objectives and Research Questions

The overall objective of this thesis is to examine how the right to food approach in India vis-à-vis the NFSA has addressed the governance challenges that have long plagued the TPDS and ICDS. The third program in this study, NRCs, looks beyond the two core programs of the NFSA to explore how families experience and understand undernutrition, while identifying the various pathways to poor nutrition. From these objectives, the specific research questions that follow are:

1. What are the specific reforms stipulated under the NFSA for food and nutrition programs, specifically the TPDS and the ICDS?
2. How have these reforms been implemented, when applicable, for each program on the ground?
3. How effective have these reforms been in curbing existing governance challenges of these programs?
4. What challenges have persisted or developed since the passage of the Act, and why?
5. What strategies could address these challenges and supplement the broader approach to tackling food and nutrition insecurity?

1.3 Methodological Approach

This thesis adopts a qualitative case study approach and uses positive deviance to select states with contrasting performance in reducing child stunting, to compare their respective policy and program experiences. As individual states in India have discretion in how they administer their social programs, this approach allows us to glean what institutional arrangements in social programs may help address existing governance challenges. A key method used in examining these policy and governance implications is the process net-map (Schiffer & Hauck, 2010), which is a promising participatory tool to map complex processes and a multitude of stakeholders that influence the outcomes of a given program. The process net-map can help identify governance challenges by

visualizing complex governance realities, with limited resources and adaptability to different settings (Birner & Sekher, 2018). This tool has been successfully applied in earlier studies conducted in many developing countries, including India, to study governance challenges of public programs (Poku et al., 2018; Sekher et al., 2017; Verma et al., 2018).

1.4 Outline of the Thesis

This thesis comprises of nine chapters. Following the introduction, Chapter 2 presents a conceptual framework for understanding governance challenges of food and nutrition programs broadly, and an institutional framework to examine demand and supply side approaches for nutrition policy or program. Chapter 3 gives an overview of the three programs studied in this thesis (TPDS, ICDS and NRCs), which is followed by a literature review on governance challenges pertaining to these specific programs in Chapter 4. Chapter 5 outlines the rationale of the study, its case study approach and the methods applied for each program. Chapters 6 and 7 delve into the findings on the functioning of the TPDS and ICDS, respectively, since the passage of the NFSA. Chapter 8 examines the NRCs in the states of Jharkhand and Madhya Pradesh and what the experience of admitted patients reveals about the pathways to severe acute malnutrition, offering insight on what may be missing from India's wider approach to tackling these challenges. Chapter 9 concludes this thesis with a synthesis of the key findings across the three programs, putting into context how the rights-based approach has transferred into actual institutional change and recommendations.

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2. CONCEPTUAL FRAMEWORK

2.1 Nourishing Nutrition

Tackling the many forms of poor nutrition have been a global challenge given the wide range of factors that can affect nutrition outcomes including socioeconomic background, education, food diversity, physical activity, sanitation and hygiene, and genetics (Gillespie, Haddad, Mannar, Menon, & Nisbett, 2013; Hammond & Dube, 2012; Herforth & Ballard, 2016; Soni, Masoud, & Bhutta, 2018), making it a "wicked problem" (Delaney et al., 2018; Nisbett, 2017). A multi-pronged approach is required to address the diverse needs of an individual, especially in the first 1000 days of life, to ensure healthy physical and cognitive development. Figure 2.1 lays out a framework for achieving optimal fetal and child nutrition as proposed by Black et al. (2013), outcomes that require a foundation of conducive institutional and governance conditions.

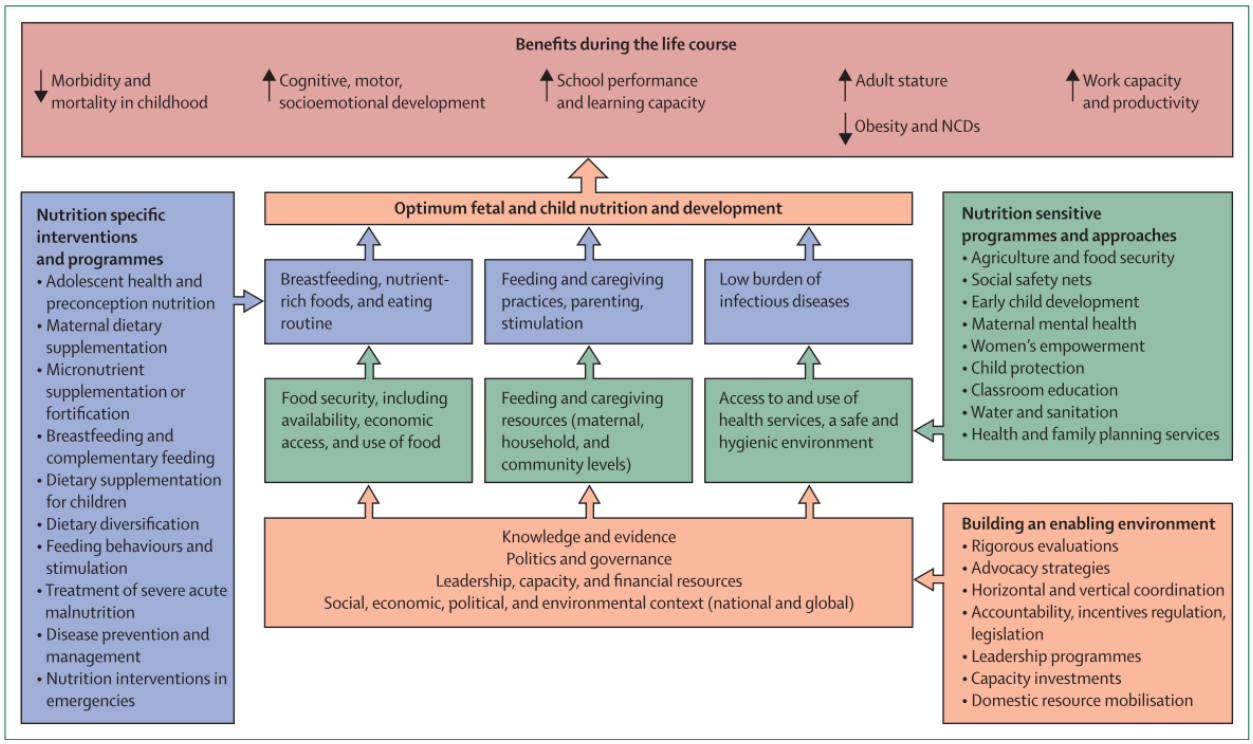

Figure 2.1: Framework for achieving optimal fetal and child nutrition and development
Source: Black et al., 2013

India's approach to nutrition has faced criticism for overlooking several aspects listed in this framework. Many have argued that much of existing food and nutrition policy has focused on delivering a minimum quantity of staple grains, rather than the holistic approach laid out in Figure 2.1 (Banerjee, 2011; Haddad et al., 2012). Moreover, even with a narrow focus of distributing subsidized grains and meals, these programs and policies have been subject to longstanding governance failures (Government of India, 2005; Khera, 2011; Swain & Kumaran, 2012), which will be further explored in Chapter 4.

2.2 Governance Challenges of Nutrition Programs

Most nutrition programs consist of two core components: 1) an in-kind distribution of food or nutrition supplementation, and 2) an educational or awareness building program to improve understanding of the complex factors associated with nutrition. Three broad categories of actors can administer such programs or services: the market, the state, and "the third sector," which can consist of civil society, non-governmental organizations (NGO) or community-based organizations (Birner & Sekher, 2018).

From the market perspective, two main problems arise with nutrition programs: the nature of nutrition advice as a merit good, and information asymmetry. In the first instance, education or awareness campaigns relating to maternal or child nutrition have the characteristics of a merit good as these services or programs are undervalued, and even where their importance is recognized, poorer segments of the population may forego them due to their cost (Hjerppe, 1997; Musgrave, 2018; Ver Eecke, 2003). Many individuals fail to invest in such services as the benefits are not immediate; therefore market actors may not be able to see strong demand to offer such goods or services, creating a need for government intervention. This lack of understanding of the value of such goods seeps into the second problem of information asymmetry. Many individuals do not fully understand that nutrition products available in the market are not necessarily substitutes for breast feeding and other essential hygiene or health-related practices. This lack of understanding, or misunderstanding presents failures that make the market a difficult vehicle to administer such nutrition programs or services.

The second category of actors is the state and government agencies. Here too, there are various challenges that can arise in implementing nutrition related programs and services. First, as rooted in transaction cost economics (Birner & Braun, 2009; Birner & Sekher, 2018), nutrition

programs prove to be transaction-intensive as they require regular provision of services but also must be scaled widely to all corners of a country. This demands a sizeable army of frontline workers who can deliver these goods and services, which in itself creates a number of problems, such as supervision of staff. Such programs also require high levels of discretion to customize programs to local needs, which assumes that a government agency has strong government capacity. Low government capacity, especially in the Indian context (Mukherji, 2008, 2017), leads to additional problems such as staff absenteeism, leakages, poor quality of nutrition goods, and problems of targeting and elite capture.

The final category of actors is that of third sector organizations, such as NGOs, community-based organizations, and individual households. This group of actors can play an important role in implementing nutrition programs, but often are limited in scale as they may be constrained by funds. NGOs can also face challenges in procurement, much like the state, such as political tampering and delivering poor quality goods and services. Community-based organizations have had a growing role in the implementation of various social programs, including nutrition programs, as they are often rooted in the community allowing greater empowerment and understanding of local needs. However, such organizations often encounter free-rider problems endemic to many collective action endeavors, as well as problems of social exclusion of certain members in the community and local elite capture. Finally, even within households, food and nutrition distribution is not guaranteed. Many sociocultural contexts, including India, have food and dietary practices that often disadvantage women and young girls who either eat last or eat least (Coffey, 2015; Vir et al., 2014).

2.3 Rights the Right Framework?

This overview of governance challenges highlights the complexity of both tackling the determinants of nutrition itself, but also the roll-out of programs to address this challenge. In the Indian context, all these challenges have been evident in programs such as the TPDS and ICDS for years and were seen as contributing to the slow rate of reduction in various nutrition outcomes, particularly among children (Bhasin et al., 2001; Dubowitz et al., 2007; Jain, 2015). The issue of nutrition and program failures gained momentum through advocacy led by the Right to Food Campaign that catalyzed political will and public attention on the faltering progress of nutrition (Sinha & Patnaik, 2016). Alongside civil society initiatives, individual states adopted common-

sense reforms in their food programs and became models for other states to follow their lead (Drèze & Khera, 2010; Krishnamurthy et al., 2014).

The passage of the NFSA laid a legal foundation for accountability and entitlements to existing food and nutrition programs. The rights-based approach to food and nutrition in India is embedded in India's constitutional guarantee of "Protection of life and personal liberty" which ensures that "No person shall be deprived of his life or personal liberty except according to procedure established by law" (Mander, 2012). This protection has evolved over time into a multi-faceted concept, much like nutrition, which requires food and nutrition for life to be protected. With a rights approach, responsibility is legally transferred to governments to respect, protect and fulfill obligations (Banik, 2016; Hunter et al., 2017).

Building the political commitment of individual states and advocacy among civil society groups in the short-term requires a separate set of skills and approaches than converting this momentum into visible results (Gillespie et al., 2013).The complexity of achieving food security and nutrition goes well beyond food availability and requires a holistic set of political and policy processes that yield an "enabling environment" conducive to the nutrition agenda (Gillespie et al., 2013). While the Act that was passed does not address nutrition security in all its complexities, it does leverage government programs that have had a mixed track record in performance to deliver the entitlements for a right to food. How then can the Act address the governance challenges outlined earlier, to ensure efficient and accountable implementation?

A useful way to conceptualize what may be critical for this conversion of commitment to results, especially in the case of a rights-based approach that places obligations on the state, is by examining whether there are complementing empowerment and efficiency linkages (Birner & von Braun, 2014). Empowerment linkages are defined as the ability of citizens to demand services while holding the providers accountable. Efficiency linkages focus on the supply-side factors that ensure the capacity of an agency or provider to deliver a program or service (Birner & von Braun, 2014). Figure 2.2 captures the linkages in the context of implementing the NFSA and its stipulations for food and nutrition programs.

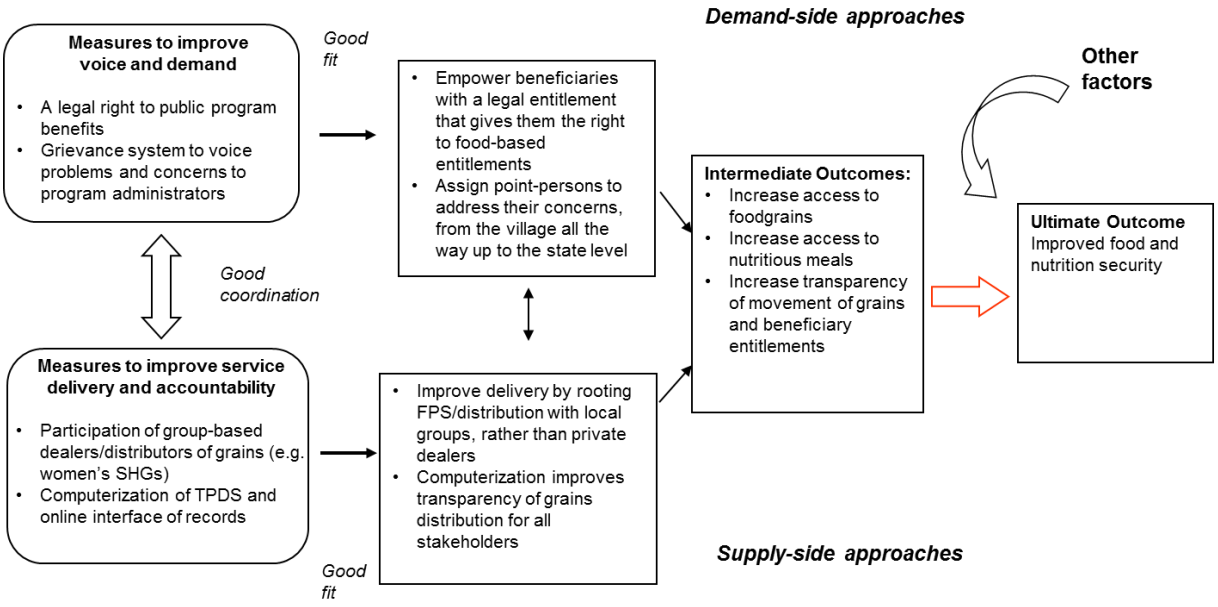

Figure 2.2: Framework for improving food and nutrition programs via NFSA: demand and supply-side approaches

Source: Adapted from Birner, 2007; Birner & von Braun, 2014

As the framework in Figure 2.2 shows, the NFSA's key empowerment linkages are the existence of a legal entitlement itself and the establishment of a grievance redressal system where individuals can voice their complaints and concerns. The key efficiency linkages are through the decentralizing of services to community groups, such as women's SHGs and cooperatives, so that they are more locally rooted. Computerization is another measure to build efficiency in the management of operations and permit greater transparency for all stakeholders involved.

Since the momentum kicked up by the confluence of both civil society and political agents gave way to the NFSA in 2013, it is unclear how the bill has translated into institutional changes on the ground. From the supply-side, the NFSA as a right puts a legal burden on central and state governments to deliver subsidized grains and set up a grievance redressal mechanism (Mander, 2016). However, from the demand-side, there is evidence that "empowerment" that can affect undernutrition is linked to various factors in the Indian context ranging from caste and class to female literacy and political participation (Harriss & Kohli, 2009). A recent study on the micro-politics of food access in rural Maharashtra noted that as entitlements must be claimed, there has to be a minimum level of political agency at the village-level without which patronage relationships arise (Rai & Smucker, 2016). Consequently, while the interplay of supply-side and

demand-side factors is crucial to ensure accountability and empowerment, equally influential factors may still hamper the mechanisms the Act has put into place. Through this study, the specific reforms for each program will be analyzed to determine whether governance challenges that have thus far impeded individuals from availing food and nutrition benefits are still at play.

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3. OVERVIEW OF FOOD AND NUTRITION PROGRAMS

The National Food Security Act declares it will provide:

> …food and nutritional security in human life cycle approach, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity and for matters connected therewith or incidental thereto (Government of India, 2013b).

The Act identifies the TPDS and the ICDS to deliver food-based benefits to households, young children and women. Under the Act, the TPDS targets two types of households, "priority" (previously categorized as "below the poverty line") and *Antyodaya Anna Yojana* (AAY), the poorest of the poor households. The ICDS has no such cut-offs for availing its services, however it does target pregnant women, lactating mothers, young children, from six months to six years of age, and adolescent girls, all groups that are seen as nutritionally vulnerable (Desai et al., 2016; Desai & Vanneman, 2015). While these two programs address preventative measures of food and nutrition security, the third program in this study, nutrition rehabilitation centers (NRCs), addresses the management of severe acute malnutrition (SAM) among children and nutrition-related medical complications. This chapter outlines the evolution of these three programs over time to better understand their objectives and reforms till date.

3.1. Targeted Public Distribution System (TPDS)

The TPDS has come a long way since its origins in the 1930s when the British set it up to address food shortages in urban settings during World War II (Government of India, 2005). In the 25 years that followed, the public distribution system's operations ebbed and flowed in the aftermath of World War II, the Partition of India and Pakistan at which time food supplies were uncertain, and then again in the first decade after Independence where there was no consistent food policy (Mooij, 1998). During the 1950s and 1960s, India's dependence on food imports from the United States at a time when geopolitical alignments were not always favorable, meant ongoing uncertainty on meeting food grains requirements to feed the nation (Mukherji, 2017). It was only in the wake of India's Green Revolution in the 1960s that the country finally reached food self-sufficiency

(Ahmed & Varshney, 2008), and the public distribution system became part of a larger procurement and distribution scheme to support technology adoption by farmers (Pingali, 2012). The Food Corporation of India (FCI) procures grains from farmers and provides a minimum support price (MSP), along with other government-backed subsidies on farm inputs and resources. These grains are then stored in state and central storage facilities, both as a buffer against market volatility as well as to distribute for various public programs, such as the TPDS, mid-may meal programs and more recently, the ICDS (Dev & Babu, 2016).

Until the early 1990s, the public distribution system was a quasi-universal program with fewer cut-offs for eligibility (Mane, 2006). However in the wake of India's liberalization reforms and the advice of international agencies, notably the World Bank, budgets had to be streamlined and the PDS became a targeted program, hence TPDS (Swaminathan, 2008). Households were categorized as below the poverty line (BPL) or above the poverty line (APL), with separate provisions for each category. The main difference was that BPL households got more subsidized grains along with kerosene, sugar and salt, while APL households mainly received non-grain benefits of the program. In subsequent years, additional groups like the AAY and also the Annapurna scheme for the elderly who are eligible for ten kilograms of grain were established (Guha-Khasnobis & Vivek, 2007).

Recent expansions in the TPDS have been the result of state-led reforms of food programs, as well as civil society agitation around the deplorable state of nutrition (FAO, 2014). From the early 2000s, several individual states began to expand their beneficiary lists to include more vulnerable members or communities, as well as incorporate technical improvements to boost efficiency, including end-to-end computerization, involving community-based groups for distribution, and using mobile technology to disseminate information on the arrival of grains at the local distribution point (Misra, 2010; Rajan et al., 2016; Swain & Sen, 2009). In parallel, the civil society push for a multitude of socioeconomic rights, including the right to information and the right to education, fueled urgency to act on the state of nutritional deprivation (Béland, 2015). The result of these parallel movements led to the birth of the NFSA.

The TPDS operates through a network of fair price shops (FPS), and the FPS owner is locally known as the "dealer." While at the outset FPS were generally run by private individuals, over the last decade and a half there has been a strong shift in many states to allocating FPS to community and/or group-based operators to increase accountability (Drèze & Khera, 2013; Sekher

et al., 2017). FPS operators buy the grains from their respective state food and civil supplies office at a pre-determined rate, and then earn commission on the sale of grains as per the rates fixed by the state. While FPS dealers are permitted to sell other items or inventory, most focus on the sale of the items provisioned by the government under the TPDS.

The NFSA stipulates to "progressively undertake" specific state-led reforms, including a push for community institutions or groups to manage the FPS and incorporating technology in operations. The Act also has a section titled "Women Empowerment" which makes the eldest woman, 18 years of age or older, the head of the household for the ration card used to purchase subsidized grains. Each member of a priority household is legally entitled to five kilograms of subsidized wheat and rice, while AAY households receive a flat sum of 35 kilograms of subsidized wheat and rice (Government of India, 2013b).

3.2 Integrated Child Development Services

India adopted a National Policy for Children in 1974, leading to the creation of the ICDS one year later to target the health and nutrition needs of children (Rao, 2005). Since a child's health and nutritional needs are closely linked to that of its mother, the program covers health and nutrition services for adolescent girls, pregnant women and lactating mothers (Patnaik et al., 2008). At the heart of the ICDS program is the *anganwadi* center (AWC; literally "courtyard" shelter) which currently number over 13,000 across the country where children, young girls and women can avail six services: 1) immunization, 2) health check-ups, 3) referral services, 4) nutrition and health education, 5) supplementary nutrition and 6) early childhood care and pre-school education (Kapur & Baisnab, 2018).

Ideally, an AWC's activities are overseen by two staff members, the Anganwadi Worker (AWW) and the Anganwadi Helper (AWH; locally known as "Sevika"). The general division of tasks is that the AWH is responsible for calling or collecting children and preparing the meals at the AWC, while the AWW is responsible for educational programming at the AWC, along with maintaining the various registers including a list of anthropometric measures of children and pregnant and lactating mothers, take-home ration (THR) registers, information on various health initiatives and home visits. In addition to these responsibilities, the AWW is often called forth to execute any other community or health-related services, such as the roll-out of schemes to build

toilets, monitor open defecation, enrolling community members for Voter IDs and most recently enrollment in the Aadhaar program (Jain, 2017).

The AWW and AWH are supported in health-related services by the Accredited Social Health Activist (ASHA) and Auxiliary Nurse/Midwife (ANM), who fall under the Primary Healthcare Center (PHC) system in villages (Nambiar & Muralidharan, 2017; R. Ved et al., 2018) They are present for the monthly immunization drives as well as for antenatal and maternal services or follow-ups. The AWW's work and performance are overseen by a Lady Supervisor (LS) who reports to the Child Development Project/Program Officer (CDPO) at the block-level, who then reports to the District Program/Project Officer (DPO). (This is a broad overview of the administrative framework; slight variations may exist from state to state.)

The ICDS program was universalized in 2008-2009, with over 50 percent of the ICDS and AWC expansion taking place after 2005 (Government of India, 2012). While recognition of the importance of early childhood and women's health was welcomed, it has also exacerbated various existing problems, such as inadequate infrastructure and human resources that have spillover effects on the management, oversight, and ultimate outreach to ICDS beneficiaries (Government of India, 2012; Ved, 2009).

As management of the ICDS falls under the purview of individual states, there have been significant changes in their operation over the years to address the specific needs of a given community. These include the greater inclusion of SHGs to supply nutritional provisions, creating mother's groups/committees for greater vigilance and accountability, streamlining government programs for greater efficiency, providing performance incentives to AWWs, providing more nutritional options and diversity in the meals provided and setting up "model" AWCs with renovated buildings, toys and supplies for children's play and education (Government of India, 2013a; Maestre & Poole, 2018; The World Bank, 2006).

Joining this long list of reforms is the NFSA, which establishes legal entitlements for pregnant women, lactating mothers and children up to the age of 14. For women, the Act stipulates: 1) a meal, free of charge during pregnancy and six months after childbirth through the local AWC; and 2) financial maternity benefits of no less than rupees six thousand. For children up to the age of fourteen years, the Act guarantees that: 1) those between six months and six years of age will be given an age appropriate meal free through the local AWC that meets prescribed nutritional standards; and 2) children up to 8^{th} grade or between ages six and fourteen years will receive one

free mid-day meal except on school holidays (Government of India, 2013b). There are additional provisions ensuring appropriate facilities for cooking meals, drinking water and sanitation in both schools and AWC; children who suffer from malnutrition are also to be identified and provided free meals. However, unlike with the TPDS, the Act neither specifies reforms on the management or delivery of the nutrition components of the program, nor has a separate grievance redressal mechanism.

3.3 Nutrition Rehabilitation Centers

Unlike the TPDS and ICDS, nutrition rehabilitation centers (NRCs) have entered the arena of nutrition programs in India more recently, though they have had greater traction in many other parts of the world, especially in the aftermath of civil strife, conflict and natural disasters ("Nutrition Rehabilitation Centers," 1968). NRCs target the treatment and rehabilitation of children diagnosed with severe acute malnutrition (SAM). In addition to providing medical and nutritional treatment for the SAM child, a critical focus of the program is the education and training of the child's mother in the care of the child's nutritional and health needs. In India, NRCs were initially introduced under the *Bal Shakti Yojana* (literally meaning "Child Strength Scheme") of the National Rural Health Mission in the state of Madhya Pradesh, with over 90% of targeted SAM children treated through the state's 258 NRCs (Dasgupta et al., 2014). In addition to medical staff, NRCs leverage village-level health workers and AWWs already working in rural communities to refer patients. Though most facilities are still run at government hospitals, there are efforts to expand community-based facilities for the treatment of SAM as well.

Global organizations have also been key partners in the management of SAM in India, such as UNICEF, World Vision and WHO aid in training, reporting and monitoring of NRCs. Other states in India have since taken Madhya Pradesh's example to establish such centers to address SAM, including Jharkhand setting up Malnutrition Treatment Centers (MTCs), Orissa, Bihar and Uttar Pradesh (National Health Mission Madhya Pradesh, 2015; Singh et al., 2014; Taneja et al., 2012). However Madhya Pradesh still remains the state with the highest density of such facilities, with nearly every district and block covered.

The operational guidelines for facility-based management of SAM children lists four objectives: provide clinical management and reduce mortality among children with SAM; promote physical and psychosocial growth of children with SAM; build capacity of mothers in the care of

their children; and identify the social factors that contributed to the development of SAM (Government of India, 2011). At the facility itself, the guidelines state various services be provided around the clock, including care and monitoring of the child; treatment of medical complications; therapeutic feeding; providing sensory stimulation and emotional care; social assessment of the family to identify and address contributing factors; counseling on appropriate feeding, care and hygiene; demonstration and practice by mothers in the preparation of energy dense foods using locally available, culturally acceptable and affordable food items; and follow-up of children discharged from the facility.

Operations of these facilities also vary from state to state depending on the needs of the local community as well as on the funding provided for the establishment and oversight of this program. There is less information available in the literature on how NRCs have been reformed over time, most likely because compared to the TPDS and ICDS, these are newer programs based at medical institutions with a very specific focus on the treatment of SAM cases. Much of the evolution of NRCs has been in their use and adoption of newer global standards for the identification and treatment of SAM children courtesy the WHO and UNICEF (Singh et al., 2014; UNICEF, 2015). However, less literature is available on how they have evolved in the Indian setting.

One alternative to facility-based management of SAM has been the push for greater community-based management of SAM which has had trials in some pockets of the country, such as Bihar. As much of SAM occurs in the absence of medical complications, many practitioners argue that community-based treatment may be better suited, especially in cases where households are remotely placed or lack adequate resources to admit themselves to the NRC. However, this has not been mainstreamed as yet in the management of SAM children in the country and still has a way to go to even expand its reach to every district of all states where undernutrition continues to be a major public health concern (Burza et al., 2015; Kumar et al., 2013).

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4. LITERATURE REVIEW

India's historical challenges in securing large-scale nutrition security have fueled extensive study into its experiences and strategies to tackle this problem over the years. The evolving understanding of the concept of food security globally, its components, and its pathways have significantly advanced the discourse and assessment of nutrition broadly (Gross et al., 2000; Headey & Ecker, 2013). Consequently, the breadth of existing academic literature is substantial. Studies have covered vast ground on understanding the state of food security and improving nutrition in India by examining food consumption (Agrawal et al., 2019; Parappurathu et al., 2015), food access and availability (Abha Gupta & Mishra, 2018; Ritchie et al., 2018), delivery of public programs (Drèze et al., 2014; Kishore & Chakrabarti, 2015; Siddiqui et al., 2017), anthropometric outcomes of nutrition (Avula et al., 2018; E. et al., 2017; Thakur et al., 2011), the role of gender (Kumar et al., 2018; Padmaja et al., 2019) and education initiatives (Meena & Meena, 2018) as well as outcomes (Vikram & Chindarkar, 2020), to name but a few. While many authors identify the institutional and governance challenges laden in the implementation of India's various public programs (Afridi, 2017; Biswas & Verma, 2009; Mohmand, 2012), few have delved into the mechanics of these behemoth programs to identify gaps and opportunities. To this end, this chapter examines institutional gaps and failures identified in the broader literature to help understand how individual states have adopted different institutional arrangements to improve delivery outcomes of social programs.

4.1 Targeted Public Distribution System (TPDS)

Through the 1980s, India's public distribution system was universal, though access in remote and tribal areas was a challenge (Bedamatta, 2017). India's PDS became the "targeted" PDS in 1997, setting a poverty line to distinguish households that were above the poverty line (APL) and below the poverty line (BPL) (Chhotray et al., 2020). With the shift to the TPDS and growing concerns about the delivery of food grains, there was a surge in the literature surrounding the implementation of this program, with heavy focus on the various governance challenges it encountered.

A 2005 evaluation of the TPDS (Government of India, 2005) produced arguably the most damning assessment of the functioning of the program up until then. The cross-sectional survey across 60 districts in 18 states found that the program was replete with targeting errors, existence

of ghost cards and unidentified households. The evaluation also noted that fair price shops (FPS) that sell the subsidized grains were unviable, which partly explained the motivation for leakages and diversion of grains (58%). Furthermore, the evaluation highlighted that just over half of eligible households below the poverty line received their grains. The 2005 evaluation provided a comprehensive breakdown of the governance failures in the TPDS including large-scale grain diversion as well as exclusion and inclusion errors.

Subsequent years saw state-level reforms take root, such as incorporating technology in TPDS operations. Some studies found this an effective intervention in enhancing transparency and giving access to beneficiaries of their entitlements (Rajan et al., 2016), but it did little to control for quality of grains or the frequency of technical failures at a store (Masiero, 2015). Perhaps most notably, technology has not helped curb the diversions that occur at the point of sale as there is no technological accounting of this shortfall (Drèze et al., 2017).

Handing over of FPS to community groups was another move aimed at curbing leakages and pilferage of grains from the system (Sekher et al., 2017). Studies have corroborated improved availability of food grains in states that transferred control of fair price shops (FPS) to local members of the community (Drèze et al., 2014; Krishnamurthy et al., 2014c). Decentralized procurement of grains has been another reform that has led to self-sufficiency in food grains among states, allowing for local supply rather than having to import across states (Banerjee, 2011; Krishnamurthy et al., 2014a). Finally, the exclusion and inclusion errors that had been rampant in the years after stricter targeting protocols was addressed through individual states taking up the costs of expanding beneficiary lists beyond the fixed "targeting" levels (Bose et al., 2014; Krishnamurthy et al., 2014b; Puri, 2012). Notably, even before the passage of the NFSA, the state of Chhattisgarh passed its own rights legislation to guarantee legal entitlements to subsidized grains (Rajan et al., 2016).

Since the NFSA and the reforms it outlined set in, many studies have tried to assess the scale of improvement in the operations of these programs. An eight-state study estimated that the percentage of PDS leakages in six out of eight of the survey states had declined and in two states stayed the same (Drèze & Khera, 2017). This same study found an increased consumption of TPDS grains in several states with the percentage of households buying rice or wheat from the PDS in the past month rising from 27 to 52 percent within 8 years. A study conducted in New Delhi notes that while there were positive impacts, such as 98 percent of ration cards bearing a female

household head (as mandated under the NFSA), 52 percent of beneficiaries experienced difficulties in availing their entitlements due to digital or electronic challenges at the FPS and 48 percent of households had at least one person left off the ration card (Nayak & Nehra, 2017). Citing the example of Jharkhand, the authors describe how pilferage of TPDS food grains has fallen substantially from 85% leakage of grains in 2004-05. Instead, the main source of leakage is due to cuts made at the point of sale, which can be as much as 20 percent of the cardholder's entitled grains (Drèze et al., 2017). While this is an improvement in the case of Jharkhand, such instances are still too common especially in the more removed areas and communities where these food grains critically contribute to household food security. Moreover, quality of grains still varies significantly and still compels households to opt for the open market over subsidized grains (Panigrahi & Pathak, 2015).

4.2 Integrated Child Development Services (ICDS)

The ICDS program was universalized in 2008-2009, with over 50% of the ICDS and AWC expansion taking place after 2005 (Government of India, 2012). While recognition of the importance of a strong focus on early childhood and women's health was welcomed, it has also exacerbated various existing problems such as inadequate infrastructure and human resources that have spillover effects on the management, oversight, and ultimate outreach to the beneficiaries (Government of India, 2012; Ved, 2009). At the central or state levels, allocation of funding for the program as well as its actual distribution to the intended programs or services has often been questioned. This has included Indian states like Uttar Pradesh, long identified as a chronic underperformer in curbing levels of child undernutrition and stunting, returning funds meant to be allocated for the running of the ICDS in its state (Rao, 2017). Significant disparity in operations have also been studied between urban and rural AWCs, where the former are often seen to have better access to resources and consequently ensure basic amenities and facilities unlike rural counterparts (Mukherjee & Rome, 2013).

Studies have also long identified bribes for various administrative officials in the monitoring of AWWs and leakages of funds and resources intended for the beneficiary or the running of the AWC (Verma et al., 2018). These lapses at the higher levels have often been seen as an impediment to better performance of AWWs who are overworked, underpaid, and often have little incentive to carry out their duties (Sahoo et al., 2016). In addition, to make up for the different

financial expenses they incur (e.g. through corruption), AWWs have also been observed as making use of or selling resources, such as grains and food supplies, intended for nutritional programs at the AWC (Gupta, 2001; Saxena & Srivastava, 2009).

In addition to the gaps in performance of administrators of the program, there are local dynamics that have been observed as an impediment to the performance of an AWC, particularly stemming from pre-existing social divisions that may exist in a community either due to religious or caste segregation (Bose et al., 2014). Earlier studies have even pointed out that the main nutrition gains through the ICDS were going to those in upper socioeconomic groups, while nutrition among girls from lower socioeconomic groups worsened (Lokshin et al., 2005). Some have also called into question the quality of the nutritional program, despite their being guidelines on nutrient content of the food or ration provided through the AWC (Jain, 2015; N. Rao & Kaul, 2018). Ultimately either due to the teeming list of responsibilities of AWWs, or due to lack of incentives, doubts have also been cast on the quality of the actual record-keeping and reporting conducted. As the lynchpin to gauging the performance of the ICDS in a state, this can challenge the ability to implement effective reforms and identify bottlenecks (Government of India, 2013).

As such programs are managed by individual states, there have been significant changes in their operation over the years to address the specific needs of a given community. These include the greater inclusion of SHGs to supply nutritional provisions, creating mother's groups/committees for greater vigilance and accountability, streamlining government programs for greater efficiency, providing wage performance incentives to AWW, providing greater nutritional options and diversity in the meals provided and setting up "model" AWCs with renovated buildings, toys and supplies for children's play and education (Government of India, 2013; Maestre & Poole, 2018; The World Bank, 2006). Given this diversity of experience in implementation, there can be critical lessons to be learned for underperforming states through the initiatives adopted in better performing states.

4.3 Nutrition Rehabilitation Centers (NRC)

As a far more recent program, and one that operates within hospital facilities, very few studies have looked at the institutional or governance challenges that exist in NRCs. Most of the work on facility-based management of SAM in India has focused on clinical and anthropometric outcomes of such treatment in different states, including Madhya Pradesh (Aguayo et al., 2015; George et

al., 2017), Jharkhand (Chaturvedi et al., 2018), Uttar Pradesh (Singh et al., 2014) and cross-state studies (Dasgupta et al., 2014; R. Gupta & Sharma, 2015). Select works have attempted to go beyond the immediate outcomes of NRC admission to examine the longer term impacts upon being discharged from such facilities to find poor rate of follow-ups (Pandey et al., 2018). Other work also identifies circumstances that may have led to the onset of SAM, such as conditions at the child's home and access to supplementary nutrition and feeding programs (Chaturvedi et al., 2018). Other researchers have tried to explore design limitations of the existing NRC model (Dasgupta et al., 2014) and further outward to the scope for community-based management (Alvarez Morán et al., 2018; Burza et al., 2015). Overall, the literature indicates that while NRCs are effective in treating the immediate symptoms of SAM, sustaining practices once discharged is very difficult for the patients and their families (Taneja et al., 2012).

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5. STUDY DESIGN AND METHODS

5.1 Study Rationale

This study adopts a comparative case study approach to explore the changing landscape of food and nutrition policy in India, both from the top-down perspective of administrators as well as the bottom-up experience of beneficiaries of nutrition services. Taking the passage of the NFSA as a starting point, this work examines the impact of the Act on the implementation of the Targeted Public Distribution System (TPDS) and the Integrated Child Development Services (ICDS). Furthermore, to better understand the pathways to nutrition deprivation, we study the operation of and experiences at nutrition rehabilitation centers (NRC).

Using positive deviance to compare districts with contrasting performance in improving child nutrition outcomes, the objective is to look at how governance challenges have been addressed in different Indian settings. Positive deviance (PD) is a research approach to behavioral and social change based on the observation that in any community there are people whose uncommon but successful behaviors or strategies enable them to find better solutions to a problem than their peers, despite being in similar socio-economic strata (Levinson et al., 2007). Furthermore, these lessons can prove fruitful in adopting or scaling up reforms and better understand institutional functioning of large-scale national programs.

5.2 Selection of Study Sites

Performance on food security, nutrition and wellbeing vary dramatically across India as evident in Table 5.1. Consequently, different states have highly disparate starting points for the purpose of a comparative study. This led to the selection of study sites from the Empowered Action Group (EAG), which includes the states of Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttarakhand and Uttar Pradesh. This grouping of states has its origins in the mid-1980s when demographer Ashish Bose identified many of these states falling behind other states of the country on various demographic indicators, such as infant and child mortality (Mishra & Mishra, 2018). Though initially a call to policy makers on the need to bridge the demographic gap between states in India, it also drew attention to how the economic backwardness of these states was plummeting the national growth rate (Som & Mishra, 2014). In 2001, the EAG was formed to address the substantial lag in social, health and development indicators in these states (Arokiasamy & Gautam, 2008).

Narrowing the selection to EAG states, this study used the most recent available data on severe stunting among children aged 0-59 months (children whose height for age is below 3 standard deviations from the reference population). Stunting reflects chronic undernutrition during the most critical periods of growth and development in early life (Vikram, 2018), and the National Food Security Act 2013 stipulates among its aims a reduction in the 48.2 million stunted children, the highest in the world.

The state and districts were selected using three secondary data sources: the National Family Health Survey 2005-06 (International Institute for Population Sciences 2007), the Rapid Survey on Children 2013-14 (UNICEF 2014) and the Annual Health Survey 2014 (Ministry of Home Affairs 2014). At the time of conceptualization of this study, these three were the latest available datasets measuring state-wise trends in stunting, whereas district-wise estimates on stunting were available in the 2014 Annual Health Survey (AHS). The National Family Health Survey (NFHS), Rapid Survey on Children (RSoC), and AHS are regularly used by federal and state governments to prepare social and healthcare policy (Dandona et al. 2016).

Two districts each in Madhya Pradesh and Jharkhand, as well as the country's capital of New Delhi (officially the National Capital Territory of Delhi, NCT), were selected for carrying out this study. New Delhi was selected exclusively to gauge the functioning of the grievance redressal mechanism as the capital was a critical stage of the right to food movement, and as per the 2015 report of the Comptroller and Auditor General of India, it appeared to have some level of operations or appointments in each tier of the grievance redressal process (Comptroller and Auditor General of India, 2015).

Table 5.1: Severe Stunting (-3 SD) in India, and its relative change between 2005-06 and 2013-14

State	2013-14 (RSoC)	2005-06 (NFHS 3)	Relative change*
Andhra Pradesh	12.1	18.7	-35.3
Arunachal Pradesh	19.6	21.7	-9.7
Assam	21.0	20.9	0.5
Bihar	26.1	29.1	-10.3
Chhattisgarh	16.4	24.8	-33.9
Delhi	14.1	20.4	-30.9
Goa	6.6	10.2	-35.3
Gujarat	18.5	25.5	-27.5
Haryana	19.3	19.4	-0.5
Himachal Pradesh	16.1	16	0.6
Jammu & Kashmir	12.8	14.9	-14.1
Jharkhand	23.6	**26.8**	-11.9
Karnataka	15.2	20.5	-25.9
Kerala	7.9	6.5	21.5
Madhya Pradesh	18.5	**26.3**	-29.7
Maharashtra	10.1	19.1	-47.1
Manipur	12.6	13.1	-3.8
Meghalaya	29.4	29.8	-1.3
Mizoram	15.3	17.7	-13.6
Nagaland	15.8	19.3	-18.1
Odisha	15.5	19.6	-20.9
Punjab	13.1	17.3	-24.3
Rajasthan	17.3	22.7	-23.8
Sikkim	11.0	17.9	-38.5
Tamil Nadu	9.4	10.9	-13.8
Tripura	15.0	14.7	2.0
Uttar Pradesh	28.6	32.4	-11.7
Uttarakhand	13.8	23.1	-40.3
West Bengal	12.8	17.8	-28.1
All-India	**17.4**	**23.7**	**-26.6**

NFHS: National Family Health Survey; SD: Standard Deviation
*Calculated as relative change = ((final period %/period 1 %) -1)*100
(Highlighted states are Empowered Action Group states)

Table 5.1 shows that in 2005-06 Madhya Pradesh and Jharkhand performed similarly on severe stunting prevalence with 26.3% and 26.8%, respectively. By 2013-14, Madhya Pradesh witnessed a 29.7% reduction in severe stunting, making it the third highest reduction among the EAG states, while Jharkhand saw a reduction of 11.9%, placing it in the bottom three. Stunting data was used

as a proxy for nutrition status as it is a better indicator of chronic undernutrition of children, often reflecting poor socioeconomic conditions and inadequate health and nutrition of the mother and/or child (von Grebmer et al., 2015; World Health Organization, 2020).

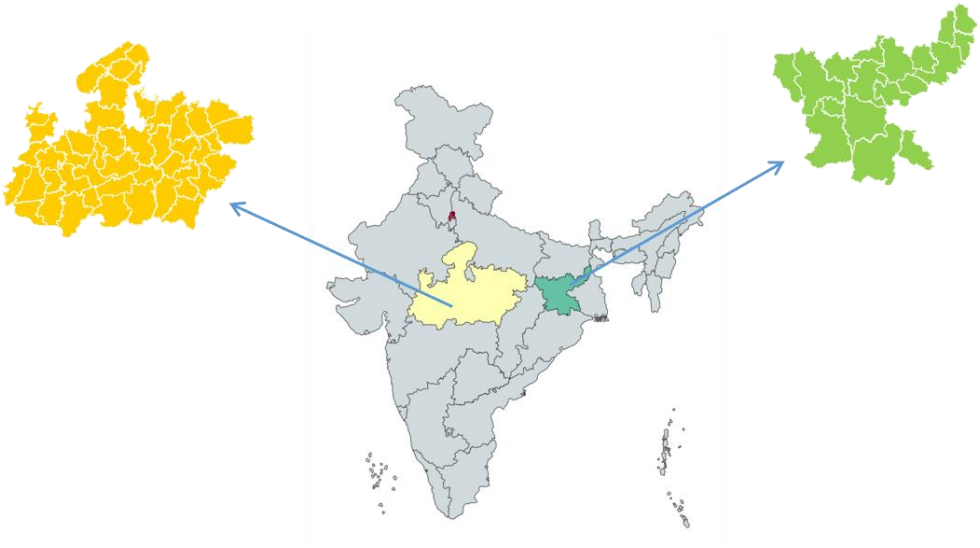

Figure 5.1: Study sites

The next step was to select districts in Madhya Pradesh and Jharkhand. In both states, an attempt was made to identify districts with contrasting levels of stunting for children under the age of five based on AHS 2014. In both states, one district was selected from both ends of the spectrum, as highlighted in **Figures 5.2 and 5.3**. These districts will hereafter be JH1 and MP1 for the better performing districts in each state, and JH2 and MP2 for the poorer performing districts, to preserve the anonymity of respondents working in these districts. The district selection was guided by the positive deviance approach stated earlier where selecting districts with contrasting performance might offer lessons and better understanding on the disparate implementation of food security programs.

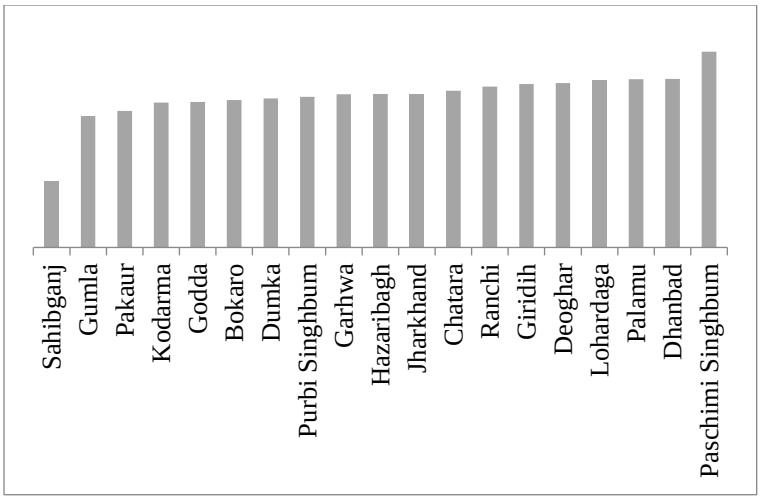

Figure 5.2: Prevalence of stunting (-2 SD) by district in Jharkhand, AHS 2014

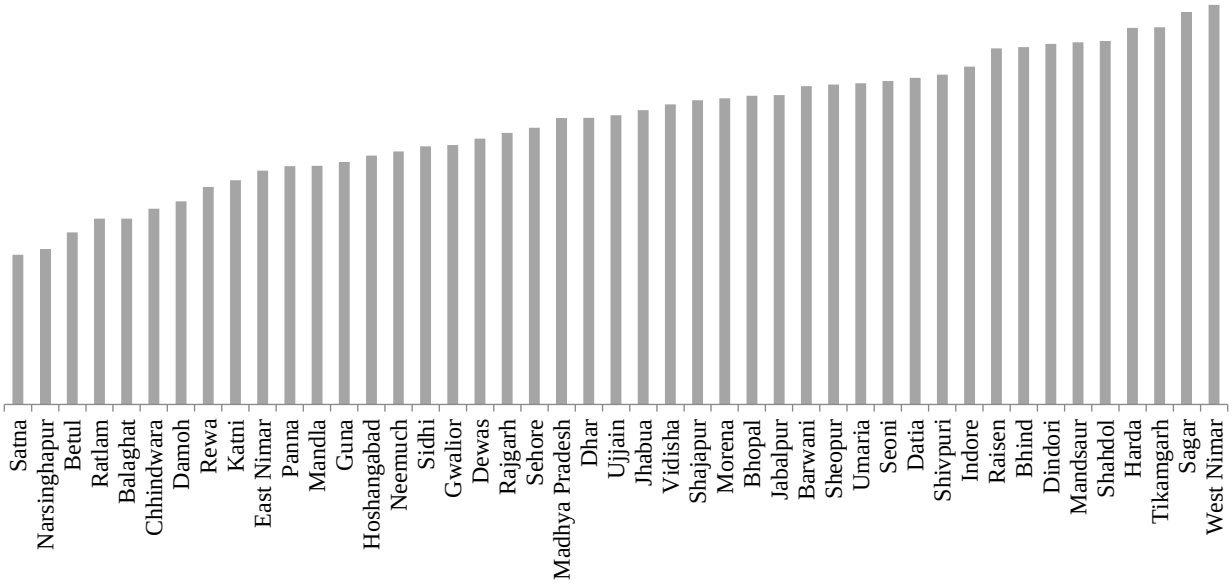

Figure 5.3: Prevalence of stunting (-2 SD) by district in Madhya Pradesh, AHS, 2014

5.3 Participants and Data Collection

5.3.1 Targeted Public Distribution System (PDS)

A series of interviews and focus group discussions (FGD) were conducted to obtain information regarding the procurement, distribution and management of the TPDS. The stakeholders interviewed included government officials administering the program, fair price shop (FPS)

owners and beneficiaries. A brief overview of the participants interviewed is provided in Table 5.2. The consolidated Criteria for Reporting Qualitative Research (COREQ), a 32-item checklist for interviews and focus groups, were maintained to collect the data (Tong et al., 2007). Potential participants were identified through different sources: (1) key informants working on food security and nutrition in India (i.e. civil society organizations and government administrators); (2) literature relating to nutrition in India were used to identify the range of key individuals and institutions; and (3) snowball sampling, where respondents were asked to identify potential participants for the study. Aside from interviews and FGDs, a process net-mapping exercise was also conducted.

Table 5.2: Study Participants and Methods

	Jharkhand		**Madhya Pradesh**		**New Delhi**
	JH1	**JH2**	**MP1**	**MP2**	
Method					
Key Informant Interview	Sub-Divisional Magistrate (1) Grain Warehouse Assistant Manager (1) District Development Officer (1) Medical Officer-In-Charge, NRC (2) Auxiliary Nurse Midwife (3)	District Magistrate (1) District Social Welfare Officer (1) Grain Warehouse Manager (1) Lady Supervisor, ICDS (1) Auxiliary Nurse Midwife (3) Civil Society (2)	District Program Officer, ICDS (1) Lady Supervisor, ICDS (1) Acting District Supply Officer Nurse (2) Feeding Demonstrator (2) Medical Officer In Charge (2)	District Supply Officer/Assistant (1) Sarpanch (1) Nurse (2) Feeding Demonstrator (2) Medical Officer In Charge (2)	Additional District Magistrate (2) Civil Society (3) Beneficiaries with grievances (17)
Net-Mapping Exercise	Women's SHG (3) Male-run FPS (1)	Women's SHG (3) Male-run FPS (1)	Agricultural Cooperative FPS (3)	Agricultural Cooperative FPS (3)	
	AWW (3), Model AWC (1)	AWW (3), Model AWC (1)	AWW (3)	AWW (3)	
Focus group discussion (FGD)	Beneficiaries (4): three with 6 participants, one with 7 participants	Beneficiaries (4): each with 8 participants	Beneficiaries (3); two with 6, one with 7	Beneficiaries (3); each with 6	

Note: Number in parentheses indicates the count of interviews/ net-mapping exercises / FGDs

Process-influence mapping is a participatory mapping technique based on the Net-Map tool (Schiffer & Hauck, 2010). Process-influence mapping combines elements of various tools that have been developed to analyze stakeholder interaction and political processes. The technique can be used in interviews with individuals or groups and involves three main steps: (1) mapping all stakeholders or actors involved in a particular process of food and nutrition service delivery; (2) drawing a flow chart of the different steps involved in the process; and (3) ranking the influence of different actors in the process using a visual aid, such as checkers or carom board pieces. The result is a three-dimensional map, which serves as a roadmap for further discussions with the interviewees. The maps can then be used to identify problems in the functioning of food security programs and identify entry points for overcoming these problems.

For the TPDS, the process net-mapping exercise was conducted exclusively with FPS dealers as they hold a unique role in the interface between the larger administrative players in the distribution of food grains and the actual public or beneficiary. Snow-ball sampling here was essential for two reasons: 1) it helped to approach dealers with whom a personal contact could be found to establish a foundation of trust and confidentiality; and 2) in the case of Jharkhand, finding actual FPS that were run by women rather than just registered in name required local knowledge of SHGs and the state of their operations.

Though a rigorous attempt was made to reach out to the desired respondents, in the case of government officials this was not always possible due to scheduling issues or unavailability. If the appropriate authority denied an interview, an attempt was made to interview the successive deputy in the same department. According to the standard qualitative survey guidelines, the survey on a particular theme continued until adequate (large enough for replication to occur and be noted) and appropriate (those interviewed must be experts in the phenomenon of interest) participants were interviewed (Morse, 2015).

5.3.2 Integrated Child Development Scheme (ICDS)

A series of key informant interviews and FGDs were conducted to understand the procurement, distribution and implementation of food and nutrition services under the ICDS as well. The ICDS provides two types of nutrition services: the first is a hot cooked meal at the AWC through which all services for mothers and children operate; and the second is distribution of packets of nutritious foods for expectant mothers, lactating women and children. Snowball sampling was used to

identify and interview AWWs in rural settings of the selected districts who felt comfortable disclosing sensitive information on the workings of the program. In addition to AWWs, government officials and administrative staff overseeing the ICDS were also interviewed as listed in Figure 5.2. Finally, beneficiaries of the identified AWCs were also interviewed to assess their satisfaction with AWC operations and gather feedback on the services offered. Ten beneficiaries were randomly selected using registry information from the respective AWC, keeping in mind that all 10 members might not attend due to various household and farming activities. Once six of the selected members of the community were present the FGD was conducted.

In order to break down the workings of the ICDS, an institutional net-mapping exercise was conducted with every participating AWW. AWWs were selected for this exercise because they are a nodal point in the provision of ICDS services, having to interact with government officials and administrators, as well as the general public, making them uniquely positioned to give a holistic account on the spectrum of actors and processes involved.

In the case of this study, when trying to map out the delivery and distribution of the take home ration (THR) packets, the AWW was asked, “When did the THR packets arrive?” Using this event as a reference, the question is followed up with, “In order for these packets to arrive on said date, what was the first thing you had to do this past month?” Like this, each step and actor along the AWW’s path for procurement and distribution are visually mapped on chart paper. The second phase of the exercise is to ask the respondents to rate the influence or power of each actor that has been identified and mapped on a given outcome (e.g. the procurement and distribution of THR). In this study, the scale for rating the influence levels ranged from zero (no influence) to six (most influence). Stackable objects, in this case checkers pieces, are used to visualize the varying influence of different actors. The respondent is then asked to explain the reasons for the influence level they have attributed to each actor. Phase three of this exercise examines governance challenges in the web of implementation, often abstracting governance problems rather than citing individual cases of such problems. This is partly to remain sensitive to the difficulty that many respondents experience in divulging personal experiences to researchers. The fourth and final phase asks the respondent to look at the map before them and give feedback based on their experience to tackle the challenges discussed.

In addition to the process net-mapping exercise, matrix ranking was done with beneficiaries in their FGD to identify which ICDS services were most important to them. To do this, a chart was

prepared with a pictographic representation of the six core ICDS services, which were also explained to the assembled beneficiaries. In the course of the FGD, the chart was placed in the middle and each mother was asked to identify which service she found to be the most important for her and her child. Each mother was given a checker to place on the map as they deemed fit, and once this exercise was complete, the checker pieces were tallied. This was then used to fuel further conversation on why certain services were deemed more or less important than others.

5.3.3 Nutrition Rehabilitation Centers (NRC)

Case Studies

Within each state, two districts were selected using stunting data from the Annual Health Survey 2014, with one district in each state being a relatively high-performing district (i.e. low stunting rates) compared to the other district (i.e. high stunting rates) to allow for both inter- and intra-state differences in the implementation of the programs of interest. In each district, a minimum of two NRCs were visited, with a subsequent NRC only visited if there were no admitted patients at the visited NRC (malnutrition treatment centers, MTC, in Jharkhand).

In Jharkhand, NRCs do not exist in each block of the district. In JH1 and JH2, all 6 MTCs in both districts were visited. In Madhya Pradesh, two NRCs were visited in each district, one in the district headquarters as this is the largest NRC with 20 beds, and one additional NRC in a neighboring block. In Jharkhand, these visits were conducted between September and October 2016, while in Madhya Pradesh these visits were conducted from November 2016 to January 2017.

In addition to admitted mothers and children at NRCs, follow-up visits were conducted with patients who had been discharged six months prior from each facility. Six months was used as an adequate time frame to assess how the time spent in the NRC/MTC had impacted the mother and the care of the child since leaving the NRC. Mothers/patients were selected purposively, but households were visited in the chronological order that they were admitted six months prior.

A series of qualitative tools were used to pursue these objectives, including key informant interviews with the nursing staff at the NRC/MTC and with the medical officer-in-charge (MOIC). A minimum of two days was spent at each NRC with patients, conducting participant observation between the hours of 9:30 AM till 4 PM to examine the interactions between the staff and patients, as well as observe the various activities at the facility. Finally, in-depth interviews were conducted with mothers at the NRC/MTC regarding the health history of the child, as well as their experience

at the MTC/NRC. In the follow-up case interviews, an effort was made to include both parents of the child in the interview so as to see how their understanding or care of the child has changed since being discharged from the facility, as well as to assess what challenges remain. The primary goal of these interviews was to inquire as to the parents' understanding of the holistic nature of nutrition, as well as the role of nutrition programs, such as the ICDS and the TPDS in supporting food security.

5.4 Data Analysis

Aside from the process net-mapping analysis, standard methods of qualitative data analysis through interviews and FGD were followed to attain the study objectives. The verbatim responses obtained from the FGDs were translated into English. To nullify the effect of intra-observer and inter-observer reproducibility, two level translation processes were opted. In the first stage, two independent field assistants who were native speakers of the local language, translated the responses to English. In the second stage, one researcher with a similar educational background randomly checked 60% of the translated FGDs. The accuracy of the transcribed responses was verified and approved for research. An excel database spreadsheet was developed to code the response of different categories attached to the participant's unique identification number. The comments and the common categories of the responses were sorted, and findings were summarized for each subcategory, noting similarities and differences across groups.

5.5 Quality Assurance

The verbatim responses obtained were translated into English by the author with the aid of local field assistants. An excel database spreadsheet was developed to code the response of different categories and appropriate themes were identified. After all the verbatim interviews were coded, the common categories of the responses were sorted. In the next step, themes were mapped to the theoretical framework developed for this study, allowing further exploration of the degree to which the data supported the framework.

Triangulation to assure the data quality and establish their validity was done through qualitative review of peer-reviewed and grey literature including research articles, government policy documents, national surveys, donor reports and newspaper articles relating to the TPDS, ICDS, NRCs, child nutrition and the policy process from 1975 to 2016. Furthermore, the diverse

qualitative methods used with stakeholders both on the supply and demand-side allowed for corroboration between respondents. Such triangulation tests for consistency helped reduce bias and thus enhance the quality of analysis (Patton, 1999).

5.6 Ethical Considerations

All participants were given a thorough explanation of the nature of this study, its objectives and its lack of affiliation with any government office. From all participants, an informed oral consent was obtained prior to an interview or exchange. Once data were compiled and made available for analysis, any participant identifiers were removed to maintain anonymity. This study also rendered special care while collecting the information on governance challenges from officials working with the Indian government. Apart from ensuring the anonymity of respondents, before conducting interviews they were told that they could terminate the interview at any time or choose not to respond to certain questions if uncomfortable. However, they were informed about the value of their contribution to the study, particularly for practitioners and policy makers unaware of the ground realities. This method helped improve the data quality, and the compliance rate of the study. Participants were asked if they would like the research to be shared once it is finalized and published. All participants approved the information collected be used for research purposes, provided the anonymity of responses is maintained.

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6. THE TARGETED PUBLIC DISTRIBUTION SYSTEM (TPDS)

6.1 NFSA and TPDS Reforms

Of the initiatives listed under the NFSA, the TPDS gets the greatest attention with concrete program reforms to improve its performance and accountability (Government of India, 2013). The TPDS has long suffered from several governance challenges, including inclusion and exclusion errors, leakages and pilferage, and poor quality of subsidized grains (Rai et al, 2014). The NFSA prescribes specific institutional reforms for the TPDS: a push for greater participation of community-based organizations in distributing subsidized grains, such as women's self-help groups (SHGs) and cooperatives; the use of technology, and the establishment of a tiered grievance redressal mechanism. Using a series of qualitative methods and an empirical comparative case study approach, we map out the persistent gaps and prospects in the implementation of the TPDS since the passage of the NFSA.

6.2 Results

A total of 14 process net-maps have been aggregated across four districts of Jharkhand and Madhya Pradesh, two in each. The findings of the process net-maps were further supplemented and triangulated with information gathered through in-depth interviews with key administrative officials as well as focus group discussions (FGD) with beneficiaries of the TPDS in each district.

6.2.1 Process Overview – Jharkhand

The process net-map for Jharkhand is depicted in Figure 6.1. In analyzing the 8 net-maps, it becomes evident across the various fair price shop (FPS) owners that there are both formal and informal operations in play. The focus in Jharkhand was on capturing the experiences of the most prevalent community-based group, women's self-help groups (SHGs), running the FPS as a key institutional reform stipulated under the NFSA. For each interview, the SHG members present were asked: What is your first step in procuring food grains for the coming month? (Alternatively: What was your first step in procuring this past month's food grains?)

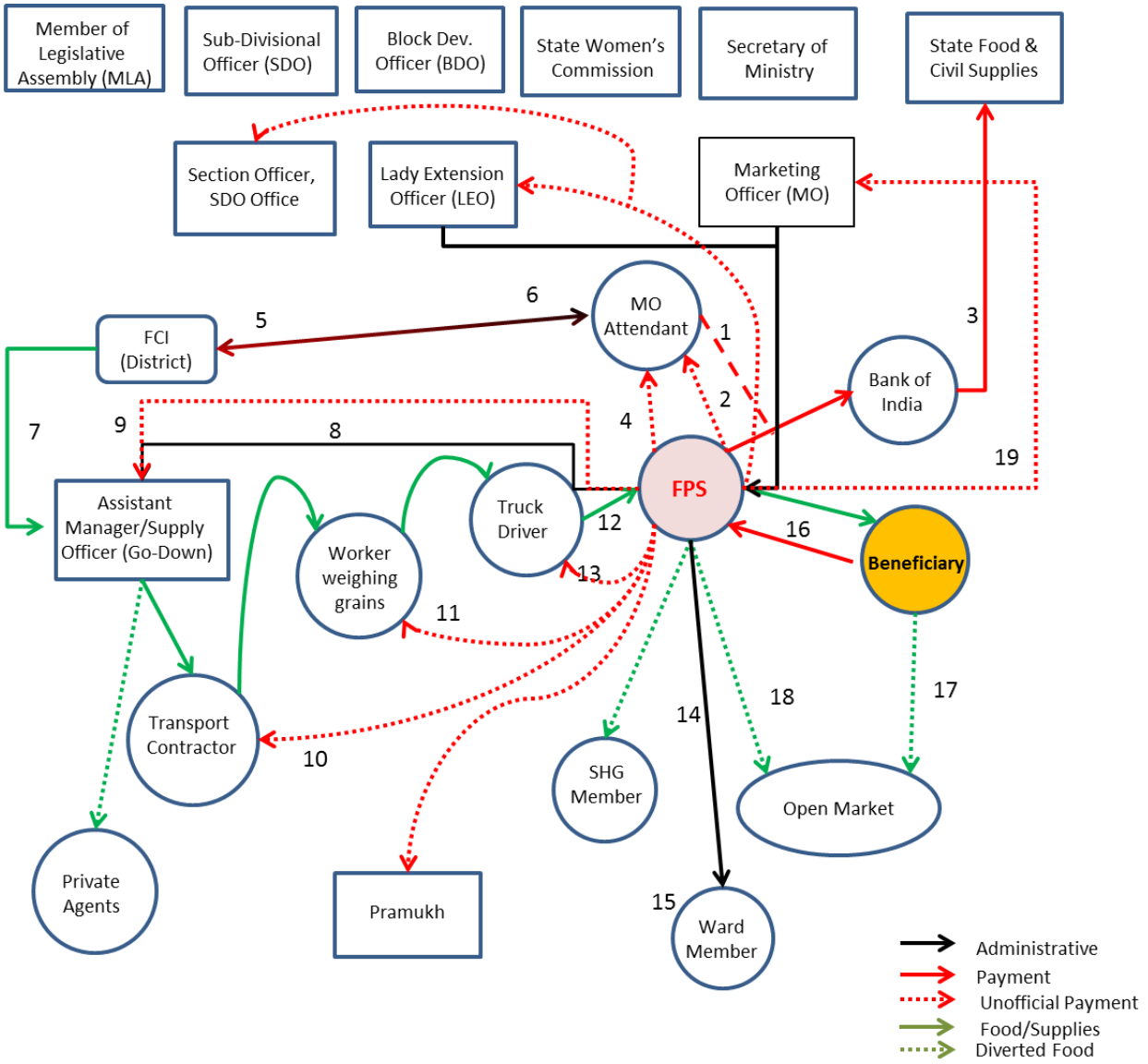

Figure 6.1: Process net-map for Jharkhand TPDS

The first step entails the women's SHG transferring funds at their local bank (often a Bank of India account) to purchase the allotment of grains for the next month (Step 1). In many cases where the women's groups were initially unfamiliar with the forms required for the transfer of funds, they would be directed by the Marketing Officer (MO), who oversees the TPDS at the block level, to an assistant identified as the "MO Attendant" (Step 1 dashed). In speaking with administrative officials at the district-level, no mention was made of such a position having any role in the TPDS distribution process in an official capacity. Most of the women's SHGs would have to pay the MO Attendant INR 200 (~ EUR 2.50) and upwards to aid in completing the wire transfer forms. FPS

where a male relative or employee supported the operations often avoided this fee as they had prior knowledge and felt comfortable completing the forms themselves. Once the funds are transferred (Step 2 and 3), another fee is paid to the MO Attendant (Step 4) to travel to the neighboring district Food Corporation of India (FCI) go-down. Here the fund transfer receipt is stamped and the MO Attendant returns to the local block storage facility to submit the stamped receipt (Steps 5, 6, 7).

Hereafter begins the wait for the actual grains to arrive in the block warehouse, local known as "go-down." While one FPS owner (a male relative of the SHG President and Secretary who actually runs the day-to-day operations) indicated that he receives text messages from the Jharkhand State Food and Civil Supplies (JSFCS) office informing the arrival of the FPS's grains for collection, most of the women FPS dealers indicated that they had to either travel to the local go-down as many as seven to eight times to check on the arrival of the grains, or they would receive a phone call from the MO or Assistant Manager at the block go-down. SHGs with shops an hour or more away from the block go-down reported that they would be listed further down on the allocation list which often delays the distribution of their allotted food grains each month.

In order to collect the food grains, the head of the SHG, or the male relative supporting the FPS operations, along with the SHG Treasurer and any other members who wish to be present, must go to the go-down. As per the interview with the Assistant Manager of the local go-down, the SHG members are required to bring their record of transactions for the previous month and upon review, the Assistant Manager approves the collection of the current month's allotment by means of an electronic tablet to manage the flow of grains of the FCI/TPDS supply chain (Step 8). The Transport Contractor, also present at the time of collection, assigns the goods to a designated truck for same-day delivery (Step 8). The workers at the go-down collect and weigh the grains as per the quantity read out by the Transport Contractor and load it on the truck, though in most go-downs visited, there was no electronic scale used that would allow all parties present to verify the quantity being loaded.

All the FPS owners reported that they made payments to all individuals at the go-down: the Assistant Manager (Step 9), the Transport Contractor (Step 10), the worker loading the trucks (Step 11), and the truck driver himself (Step 12), ranging in amount from INR 100 to INR 300 (~EUR 1-3) per person. Even in cases where SHG members did not think that their collection of food grains would be jeopardized by withholding payment, they felt a system and culture had already been created that they could not eschew.

Once the trucks deliver the grains to the FPS, news of the grains' arrival is disseminated through an informal network of contacts and neighbors and the sale phase commences. The delivery trucks usually carry the banner of their destination FPS and any member of the public can spot the arrival and transport of the grains. In all the FPS where women fully managed operations, the grains were stored and distributed from their homes located within the community. This allowed for more regular hours of operation and accessibility for beneficiaries to collect their grains. For collection of grain entitlements, any member of the beneficiary household could present the household ration card at the FPS and pay the subsidized rate of INR 1 per kilogram of rice and wheat.

6.2.2 Process Overview - Madhya Pradesh

The process net-map for TPDS operations in Madhya Pradesh is presented in Figure 6.2. In the Madhya Pradesh setting, the most prominent difference in the functioning of the FPS was that they are overwhelmingly managed by male-run agricultural cooperative societies. Despite efforts to track down women-run FPS, none could be located or identified in the communities visited. The District Supply Officer in MP1 indicated that the government was aiming to increase participation of women SHGs in FPS operations to as much as one-third, but provided no specific time frame.

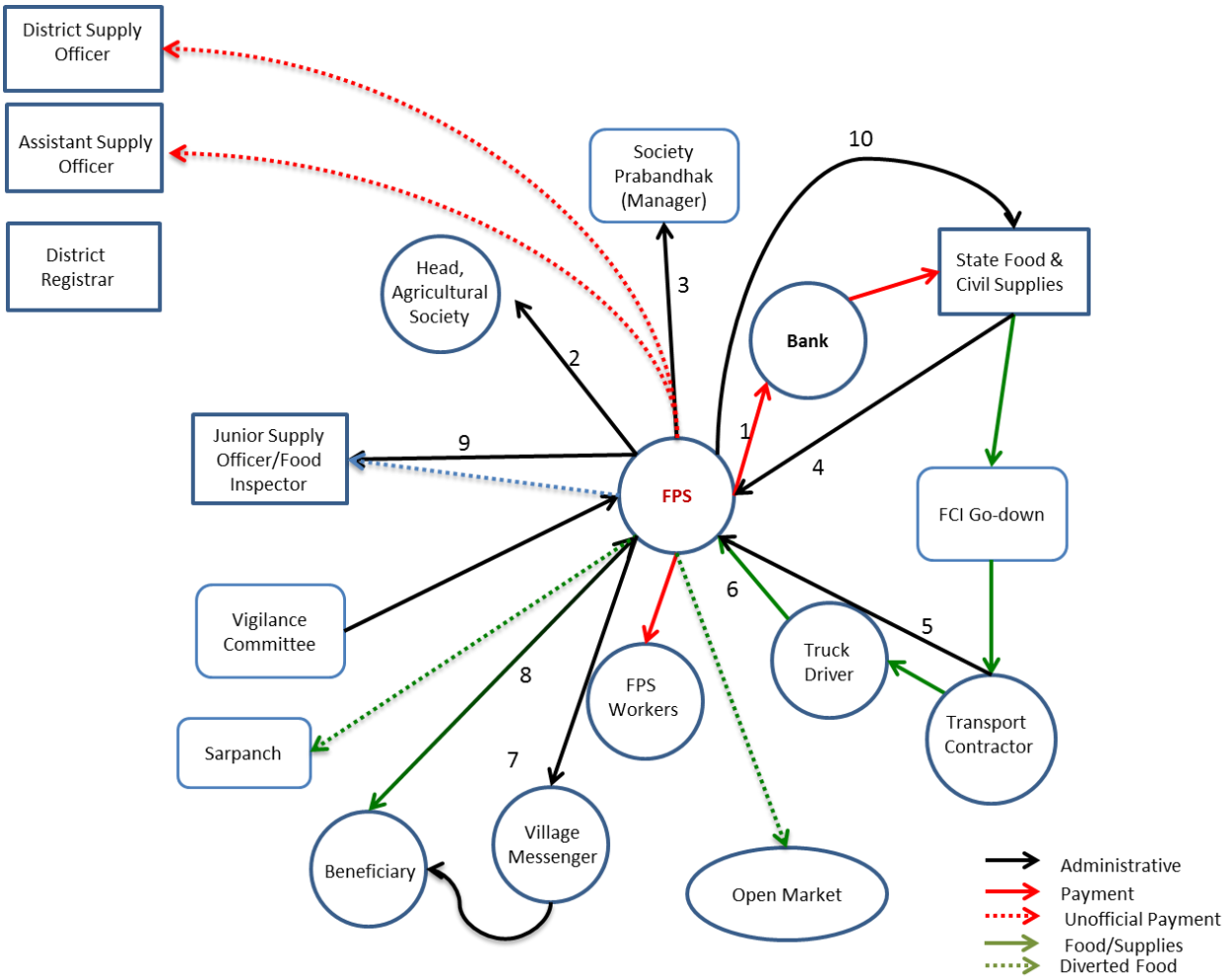

Figure 6.2: Process net-map for Madhya Pradesh TPDS

A second key difference was that unlike Jharkhand, the digitization of the TPDS had reached the FPS level and had been in operation for a year prior to this study. The impact of this change is visible in the process net-map as there is a clear reduction of steps in the operation of the FPS and less interaction with intermediaries in acquiring food grains. FPS dealers were asked the same series of questions as in Jharkhand as to the steps required to obtain grains for the current or coming month's sales.

As in Jharkhand, operations are initiated with a bank transfer for which the FPS dealer receives a receipt and confirmation of the transfer order ("*challan*"). A monthly report is given to the Head of the Agricultural Cooperative Society on grain distribution and stocks, which is signed by the Society Manager (Steps 2 and 3). The FPS dealer retains a copy of the initial transfer order. Then the FPS dealer awaits a text message from the Madhya Pradesh Food and State Civil Supplies

(MPFSCS) with confirmation of the coming month's allotment (Step 4). On the day of delivery, the Transport Contractor communicates to the FPS operator, and the goods are delivered to the FPS by truck; upon arrival, the FPS operator signs a delivery order, retaining one copy (Steps 5 and 6). In addition to the visible arrival of the truck to the FPS, beneficiaries are notified by word of mouth of the arrival of food grains to the FPS, and the FPS operator also informs the Village Messenger who can further disseminate this news (Step 7). Beneficiaries can then come on designated days to collect their grain entitlements by presenting their TPDS card, and the FPS operator updates the stock and sales registers (Step 8). Some FPS operators indicated that if a beneficiary does not lift their allotment of grains for a given month, they can save it for them for a period of up to two months. At month's end, the Junior Supply Officer or Food Inspector will request to meet with the FPS dealer to cross-check the records with the EPOS machine, and all information is uploaded online in real-time (Steps 9 and 10). A notable difference between Jharkhand and Madhya Pradesh is that FPS dealers in rural areas are paid monthly salaries in Madhya Pradesh of INR 7700 (~EUR 90) for the first FPS they manage and Rs. 500 (~EUR 6) for each additional FPS managed. Urban FPS dealers earn on a commission basis, much like their counterparts in Jharkhand.

6.2.3 NFSA Reforms in Jharkhand and Madhya Pradesh

State of Community-Based Management

The greater inclusion of community-based groups can be seen as both a demand and supply side measure to improve the governance of the TPDS. However, as the process net-maps show, the inclusion of such groups has not entirely curbed the leakage of grains. In the case of Jharkhand, there are three major gaps in the implementation of this reform. The first is that many women's SHGs only exist on paper, and their FPS is operated by male relatives. Consequently, profits of FPS operations accrued to those members of the SHG who are family members. Other members of the group had little involvement in the FPS operations and occasionally received a small portion of grains at the discretion of the SHG leaders and their male relative. Additionally, interviews with district officials and local NGOs revealed that this practice of male-run female SHGs is an open secret. In the preceding seven years, Jharkhand has been giving priority to women's SHGs for FPS, and as a result, many men have registered SHGs under the names of female family members to gain FPS licenses. Hence the intended benefit of having community-based organizations

working as a group for the good of the public and being better held accountable by their own community has been irregular.

Even among FPS where women ran the FPS operations, a second major gap arose from the various costs that continue to exist for FPS beyond their regular operating costs. These costs are a result of the longstanding chain of corruption where various officers and middlemen across the chain of command expect some form of remuneration. In Jharkhand, exploitation of these SHGs arises with the Marketing Officer (MO) and also indirectly with the Lady Extension Officer (LEO). At the time of these interviews, the Jharkhand TPDS was only digitized up to the point of distribution at the go-down, however even this process is controlled by an officer who must sign off electronically on an FPS' grain allotment. All the SHGs reported that the MO expected a set payment on a monthly basis when they arrived at the go-down facility, using the review of their records and transactions as a cover to demand payment before the go-down heads release the goods. These payments ranged from INR 1000 to INR 3000 (~EUR 11- EUR 35) in our findings, with some FPS owners indicating that earlier some officials requested a percentage cut of monthly profits; these sums account for as much as 25 percent of monthly earnings.

In Jharkhand, the LEOs formally work under the District Development Officer (DDO) and are employed to support SHGs. For many SHGs, the LEO played a pivotal role in availing resources or information, as well as in applying for an FPS license. However this often came at the cost of signing up for agricultural loans, on which these LEOs can earn either a commission or extract a payment. These loans while very appealing, could also be a focal point for discord within SHGs, often straining the relations between members. Once received, the challenge of repaying the monthly installments of these loans and nominal earnings through the FPS would force these groups to make cuts in distribution at the time of sale. One SHG reported that due to the backlog of loan payments, they not only had to dismantle their SHG due to internal conflict, but they sold off an entire month's worth of TPDS rations, an incident that was corroborated by an FGD with the community members.

A third gap in the experience of many Jharkhand SHGs was the inequity within the SHGs themselves. Even when male acquaintances are not running the FPS, the store operations involve at most three to four members of a ten member SHG. Greater participation of other women members was also hampered by the prevalence of low literacy and little time as many women were laborers. In cases where only one or two women are literate, the profit of the FPS would accrue to

them as they felt they bore the burden of running the PDS, while distributing any remaining food grains among the members at the end of the month. There were also cases where an SHG was registered under one member, and as a result, this individual would demand a set amount of grains every month in order to maintain the registration or book-keeping of the FPS, creating additional loss for the other members of the SHG.

Most SHGs admitted to selling off excess rations and also swiping anywhere from one to four kilos per card, depending on the number of beneficiaries. Community members corroborated these diversions in grains, justifying their lack of protest either because they understood the financial constraints of the FPS (e.g. various bribes and financial burdens) or because they felt discomfort at confronting a member of their own community over a few kilograms of grains. The FPS also admitted to problems with the current list of beneficiaries, with various exclusion and inclusion errors that have been a long-standing criticism of the TPDS program. As this study was conducted prior to the implementation of the EPOS in Jharkhand, most FPS owners still had some discretion in how they distributed food grains. For example, at one FPS there was a widow present whose name had been left off the TPDS list but another name had appeared with a striking resemblance to hers with no claimant to the grains. Hence the FPS owner diverted the unclaimed grains to the widow since she knew her as someone who would normally be eligible for the grain entitlement but was likely excluded due to a clerical error. Similarly, FPS owners when rooted in the community know who should not be entitled to grains and this opens space for unclaimed grains to be sold on the private market by the shop owners for 15 to 20 times the rate at which they sell to beneficiaries. This came to light in Madhya Pradesh as well, where several dealers have been running FPS for decades and know which households should be eligible. In cases where there is an inclusion error, rather than report the error to the authorities, the dealer would continue to sell the grains to the beneficiary however at an inflated rate so as to earn a profit but still below market rates; this provides a win-win for the falsely included beneficiary and the dealer.

Ultimately, these findings indicate that while the presence of community-based groups such as SHGs in Jharkhand helped ease access to FPS grains, it did not completely curb the problem of pilferage. One reason for this is the larger system of corruption and pressure that is applied on these groups through diverse administrative officials, both directly (monthly payments) and/or indirectly (forced to take loans or risk license). A second reason is that internal SHG dynamics can compel group members to steal grains from beneficiaries to recoup costs or

compensate fellow members; a single member can also take advantage of the system as they claim the greatest investment in the operations. Consequently, the beneficiary is still sold less grains even though many of the beneficiaries seemed empathetic to the constraints on the SHGs.

Use of Technology

A key supply-side measure in the reforms under the NFSA was the adoption of technology in TPDS operations. As noted earlier, at the time of this study the TPDS in Jharkhand had been computerized up to the block-level go-down and the EPOS had only just been introduced at a large scale in the state. From the beneficiary perspective, the computerization of the grain distribution channels did not appear to have made much impact for their day-to-day, though technically they should be able to view their TPDS entitlement online. For the FPS dealers, computerization at the time did not seem to have made any significant changes since daily operations were still managed by hand and needed to be submitted in person to the MO or other administrator. Dealers expressed significant concerns over the introduction of the EPOS. In a block go-down in JH1 as a group of dealers (all men) arrived to pick up their grains, one declared: "We are going to return our licenses once this EPOS is introduced. We cannot do business this way -- it's more trouble than it is worth." Many of the SHGs in the process net-mapping exercise also expressed how this would impact the beneficiaries: "Right now, anyone in the family can run over and take the ration. The adults are usually busy with work so usually they send children or a neighbor. Now this won't be possible." They also described how in rural Jharkhand, electricity and cellular connections are tenuous at best. These infrastructural limitations are bound to impede their ability to operate the TPDS and distribute rations.

In contrast to Jharkhand, Madhya Pradesh had a fully computerized TPDS which at the time of this study had been in operation for over a year. One of the immediate differences we see in the process net-maps of the two states are the fewer steps involved in the month-to-month operations as a result of the computerization. Most notably, many of the intermediaries are absent in the physical pick-up and distribution of the grains as FPS dealers are not required to physically come to the go-down. This can mean a reduction in costs/payments for dealers in terms of transportation to and from the go-down (including when checking on the arrival of grains) as well as payment for workers at the go-down for weighing and loading their allotment. There is also a

more functional automated system of notifying dealers upon the dispatching of food grains to the PDS that puts the pressure on the administrator instead of the individual dealer.

As anticipated by many of the respondents in Jharkhand, the dealers in Madhya Pradesh did experience several challenges as a result of the technological improvements. The most pervasive problems in rural settings are that of electricity and cellular connection to operate the EPOS devices. Coupled with the fact that unlike in Jharkhand, FPS dealers are not regularly available to sell food grains as they operate multiple stores across villages and shift between stores from week to week, which puts the burden on the beneficiary to come to the FPS on the few days they open the store. In addition, one FPS dealer described how periodically he would upload the transaction data but this information would reset at the end of a month. It should be noted that even when making visits of an FPS in New Delhi, a similar issue came up where transactions with EPOS that fail due to irregularity in reading a fingerprint will actually register in government records as failure to pick up grains rather than a failure of the machine itself. These inconsistencies in how data is being recorded or tracked can fail to reflect that the problem is with the actual technology in use, not the failure of the beneficiary.

Despite all these technological innovations, in Madhya Pradesh, as in Jharkhand, stock and sale registries are still meticulously maintained. All the FPS dealers reported that they would regularly have to visit government administrators. When asked what the need is to report to individual administrators on a regular basis when everything is electronically uploaded and registered, the respondents seemed hesitant to speak. One FPS operator in a peri-urban area of MP2 outlined the monthly payments he gives to various government officers overseeing the TPDS. He reported having to pay the head of his cooperative INR 1000 per month (~ EUR 12), INR 1500 (~ EUR 18) to the Food Inspector, INR 5000 (~EUR 61) to the Assistant Food Controller, and INR 8000 (~EUR 94) to the Food Controller. During the interview and mapping exercise with this FPS dealer, an individual drove up to the store and collected one quintile of grains and loaded it into an SUV, proof that despite the various technological advances, there continues an active leakage of grains from the TPDS chain. When asked where the FPS dealer procures this much money, he reported on some peculiarities in the way the TPDS is currently run. One is a recurring issue across both Madhya Pradesh and Jharkhand, having to do with inclusion errors in the TPDS list of beneficiaries. Several dealers advised that as they are either based within the community or have been dealers for several years, they are aware of who is further up or down the socioeconomic

ladder in a community. Consequently, when many households were included as TPDS beneficiaries despite being above the economic threshold set for priority households, the dealer has some room to exploit this information.

Another issue he raised is that even before arrival at the FPS, there are ways to manipulate the amount of food grains distributed. He described how the storage facilities where many of these supplies are kept are not secure and small ways of tampering can distort the weight of grains. He described: "Have you seen these go-downs? If you leave open the doors and windows and allow air, moisture and dirt to enter and circulate, it affects the weight of grains in the gunny sacks." The buildup of even one hundred grams per sack can increase the weight of these grains substantially when multiplied by several hundred tons in a given storage facility. At this point, there is the entry point of various middle-men looking to take these grains, as described by a go-down manager in Jharkhand: "When I joined, I was approached by some middle-men ("*dalal*") who were pushing that there should be some grains cut in the distribution to the FPS dealers, and they would take the extra. I could be in on the profits. I was harassed and threatened but once I took the name of the SDM (sub-divisional magistrate), they left me alone." In this particular instance, the recent appointment of a young SDM had disrupted such misdemeanors in the operations of the TPDS, at least temporarily. However, this sheds light on how a long-running pattern of abuse and pilferage are still difficult to break.

Even with the advent of technology in both states, there are limitations to the amount of corruption it can curb. While information is readily available to the public and there is potential to reduce intermediaries, as in the case of Madhya Pradesh, ultimately authorizations are granted for monthly distribution and licenses are issued through physical, human administrators. As these findings showed, even in Madhya Pradesh which has completely computerized to the point of sales, FPS dealers were still required to appear every month before administrative heads. Furthermore, all FPS dealers and beneficiaries cast doubt on the efficacy of the technological solutions, with many reporting glitches and incorrect reporting.

Grievance Redressal Mechanism

The crux of the demand-side reforms under the NFSA lies in the grievance redressal mechanism, which as this study and many others have found, has been woefully underemployed and often poorly implemented in the districts of this study. In Jharkhand, in none of the FGDs did we

encounter a beneficiary or individual who had successfully submitted a complaint regarding issues with their ration, omission of a name on the ration card (often children) or other lapse in the receipt of their entitlements. Most beneficiaries did not even know who the nodal point of contact was to file a complaint or grievance regarding their grain rations. What was more troubling was learning that the MO sits on the committee for grievance redressal, when as per the accounts of various dealers, he is part of the very problem that affects the distribution of grain entitlements to beneficiaries.

In Madhya Pradesh, interviews with the District Supply Officers (DSO) echoed the situation in Jharkhand, where technically there was a group of officers convened for grievance redressal, notably the DSO and District Magistrate. However, awareness among beneficiaries was minimal with respondents reporting that the first line of resolution would be the *Sarpanch*, the local village head. Unlike Jharkhand, however, respondents reported greater satisfaction with their ration card entitlements and distribution.

In New Delhi, a different approach has been pursued in the area of grievance redressal, with the aid of organizations like *Satark Nagrik Sangathan* (SNS: literally, "Vigilant Citizens' Association"). From the month of August onward, SNS held a series Grievance Camps throughout Delhi, collecting grievances for a number of public services and programs from residents to officially submit to the respective authorities. Three Grievance Camps were attended to understand the problems most commonly faced by beneficiaries with regard to their ration. These grievances ranged from non-receipt of sugar, untimely operations of the FPS, reassignment of FPS to a more remote location, names of household members (often children) left off the ration cards, non-receipt of a ration card (in some cases, non-receipt after submitting the card for changes), and incorrect category of ration entitlements. After a three-month period, 17 complainants were followed up in three separate areas of Delhi, to see if any response had yet been received on their submitted grievance. None of them had received any response to their formal grievance to government officials in the three months prior to the interview.

Much has already been written and published regarding the failing of the grievance system in Delhi, most notably through the work of SNS (Bhatnagar, 2018b). After many efforts, an interview was conducted with an Additional District Magistrate in Delhi, who declared that while grievance hearings were conducted regarding breaches in ration entitlements and FPS

mismanagement, the key challenge was to convene all parties as beneficiaries often are unable to spare time to attend such hearings at the cost of a day's work.

Thus the grievance redressal which was to give the NFSA its teeth, ultimately remains unenforced. Beneficiaries in both Jharkhand and Madhya Pradesh seemed completely oblivious to such a mechanism, and most knew of no local officials they could approach. Furthermore, in both states, the grievance committees include the Marketing Officers that are often culprits in these larger lines of corruption. Without greater political will and greater push to educate the public about their rights and the relevant means to remedy their grievance, the NFSA in its current form has a diluted impact on curbing governance challenges.

6.3 Discussion

This study attempts to examine how the institutional and infrastructural recommendations stipulated under the NFSA 2013 have been operationalized in the years since its passage. Key among these reforms were the inclusion of community-based organizations as the agent of distribution to beneficiaries (FPS dealers), applying technological interventions to enhance transparency and a multi-level grievance redressal mechanism. The results of this study indicate a mixed outcome on all fronts and a resounding failure of the grievance mechanism in the states selected.

The Limits of Community-Based Groups

Firstly, the push towards increasing participation of community-based groups rather than private individuals in the administration of various welfare and livelihood programs is not new (Ramesh, 2007). SHGs have been a central tool in raising participation and inclusion of women, and in the Indian context a strategic part of the government's development agenda as evidenced in the Ninth Plan, 1997-2002 (Bali Swain & Wallentin, 2012). Even in documents submitted to the United Nations Human Rights Council for India's candidature, women SHGs are listed as a means to "promote the social, economic and political empowerment of women" (Permanent Mission of India to the United Nations, 2011). Much of the literature examines SHGs within microfinance programs to understand their functioning, experiences and impact on reducing poverty, as taken up by national governments and international organizations alike (Patil & Kokate, 2017). In the Indian setting, SHGs have been proclaimed the largest network of community-based organizations

serving to both mitigate poverty as well as empower women (Reddy & Reddy, 2012). The effects of SHGs have been studied across a broad spectrum, ranging from improved nutritional outcomes (Deininger & Liu, 2013) and greater political participation (Ramesh, 2007), to household debt reduction and lower incidence of acute food deficit (Datta, 2015).

Studies examining the role of SHGs outside the realm of microfinance, however, are far fewer. Much of the coverage of SHG performance and experiences with the TPDS has been disseminated through the national news media (Reddy, 2017; Staff Reporter, 2007). Several states that undertook institutional reforms of their TPDS from the mid-2000s onwards, notably Chhattisgarh, made deprivatization of FPS a priority to bolster accountability and transparency. Handing over FPS responsibilities to women's groups was embraced for the dual purpose of perceived greater accountability by including community-based groups rather than private individuals, but also served to empower women and generate livelihood options that could bolster their own food and nutrition security.

The current experience of women's SHGs in the TPDS reflects problems at multiple levels with regard to operating the TPDS to ensure a steady and reliable stream of subsidized grains to beneficiaries. At the macro-level, we see two prevailing issues: 1) many of these groups are in fact only women-led or women-run in name with male relatives being responsible for the operations and earnings, and 2) women's SHGs seemed vulnerable to various government administrators.

Findings from this study diverge from much of the existing literature on SHGs which often examine the economic, social and empowerment aspects of participation or interaction with SHGs, both for members and their communities. The core interest here was to examine the experience of SHGs in the implementation of a social welfare scheme, specifically the distribution of food grains. As Shah notes (2012), despite women traditionally being providers of food and nutrition in their communities, in the Indian context they have been largely missing from the public provisioning of food, especially the TPDS. In this sense, the experience observed in Jharkhand is a step toward a more inclusive system where women are present and hold leadership roles in the disbursement of food grains. Many beneficiaries also noted that the presence of women's SHGs allowed greater ease of access to food as FPS are more locally embedded, reducing travel of long distances to the next available FPS.

However, SHGs in this study still experience significant obstacles in fully executing their role in the TPDS. This study corroborates the findings of other work on the vulnerability of SHGs

to many of the social, cultural and institutional conditions in which they exist, whether it be asymmetry of power relations (Kalpana, 2008) that can make it difficult to obtain an FPS license or operate without hand-outs to various administrators, or the implicit take-over of their operations by male relatives, as has also been observed with availing of credit by male relatives in microfinance-focused SHGs (Guérin et al., 2013; Kalpana, 2008).

The success of states like Chhattisgarh in turning around their TPDS was due in part to the deprivatization of FPS, but also leveraged various complementary reforms including strengthening local governance, building public awareness and expanding coverage (as in Madhya Pradesh) of beneficiaries (Ramaswami & Murugkar, 2013). This complementarity is essential for meeting the complex needs for such a large-scale distribution program.

Technology – A Bane or a Boon?

Technology as a tool to improve transparency and accountability has been widely documented especially in the provisioning of public programs like the TPDS (Hanna, 2017). The initiative of various states to computerize and incorporate technological solutions in administering public programs like the TPDS, inspired the inclusion of these reforms under the NFSA (Krishnamurthy et al., 2014). While technology can aid certain aspects of governance, notably enhancing transparency of records (Dev & Babu, 2016), technological interventions are not entirely autonomous and as the findings of this study show, gatekeepers remain that can subvert the system given the complexity of governance issues in the management of such programs (Dhaliwal & Hanna, 2017). Empirical studies have shown that transparency of information while a necessary condition is not a sufficient measure to yield accountability (Fox, 2007).

Much of the discourse on the role of technology in provisioning of various public programs in India began as silver bullet solution to the gaps in the TPDS with particular attention paid to Chhattisgarh, which had extensively overhauled its distribution system through integrating end-to-end computerization (Krishnamurthy et al., 2014; Rajan et al., 2016). This line of thinking was repeatedly encountered in the interviews with government administrators in both Madhya Pradesh and Jharkhand who extolled the power of technology to plug corruption and leakages through fake ration cards and accounts. However, for the FPS dealers, the implications of a technology driven system was far different.

The two study settings had very disparate progress on the technological front, with Jharkhand on the cusp of an EPOS system that would bring end-to-end computerization, and Madhya Pradesh having computerized its program from start to finish for over a year. The process net-map exercise clearly shows that technology would positively impact the issue of "middle-men", a classic problem in the case of such service provisioning. However, would this ultimately eliminate the issue of pilferage and leakages from the system?

Several studies have examined the challenges in Jharkhand since the advent of the EPOS system, in particular the requirement of biometric information to collect grains (Drèze et al., 2017; Khera, 2017; Kohli et al., 2017). The problems that have ensued include failed biometric authentication, poor ICT infrastructure that slows down or entirely obstructs the EPOS functioning, and administrative glitches in how EPOS transactions are categorized (e.g. failure of authentication may still appear as a failure of the beneficiary to collect grains). As many academics and civil society actors have noted, while technology in theory can be an asset in the goals that the NFSA and state/central governments have etched out to boost accountability and transparency, in the interim the brunt of failing technologies is borne by the most vulnerable. Many studies, including this one, also note that ultimately the existence of EPOS also does not deter the leakage of grains at the beneficiary level since the dealers can still swipe one to two kilograms of grain per person, if not more. However, large-scale diversion, such as when an entire month's allotment of grains was sold on the black market by an SHG to pay off loans, might be harder to achieve.

The Jharkhand setting indicates that there are other competing pressures for women's SHGs that compel them to divert from the beneficiary --- one of these being payments they have to make for various loan schemes, alongside payments to intermediaries like the MO. The first payment falls outside of the entire TPDS program itself and may be a gap that administrators fail to account for as motivating illegal activities and leakages of grains. Looking to Madhya Pradesh, the limitations of the technology were evident here as well in failures in the reading of biometric information, issues of connectivity and electricity, as well as issues of uploading data. However, fewer intermediaries in the operations meant less financial exploitation by middlemen, but higher up the chain of command, expectations remained of payments from the dealers.

The 2004 World Development Report noted that service-delivery failures are accountability failures and etched out a "long" and "short" route to attaining accountability (World Bank, 2003). The long route includes elections and lobbying senior officials, while a short route

would establish direct links between users and providers of services. For this latter route, demand-side initiatives to amplify voice and transparency have been pushed to the helm (Gaventa & Mcgee, 2013) with technology as the vehicle for achieving these goals. However as Toyama (2015) notes, technology may in fact have an amplifier effect on existing intent and capacity of the stakeholders in a given system rather than replacing that pattern of behavior. For those who are not susceptible to shaming, such technological measures to improve transparency of the TPDS would yield limited pressure to improve service delivery (Fox, 2007; Peixoto & Fox, 2016).

Grievance Redressal – The Missing Teeth of the NFSA

As the main demand-side institutional mechanism for beneficiaries to lodge complaints and address irregularities with their TPDS entitlements, no beneficiaries interviewed in the three study regions had successfully availed the grievance redressal system. In Jharkhand, none of the beneficiaries interviewed in the FGDs knew the central point of contact for submitting their grievance. In Madhya Pradesh, though beneficiaries expressed fewer irregularities in receiving grain entitlements, there were still issues of accessibility of the FPS in terms of hours of operation and proximity to the store. Nonetheless, here too, the beneficiaries interviewed in the FGD did not know the appropriate authority to approach for their grievances, though for many their local village official, the *Sarpanch*, was a resource person to approach regarding their ration concerns. In Delhi there was considerable push by civil society organizations such as SNS to elicit grievances faced by beneficiaries and demand accountability on behalf of these beneficiaries from government authorities. However in following up on individual complaints submitted through SNS' Grievance Camps, no one had received any response in the three months since filing their grievance.

Much has already been written in the Indian media about the absence of a functional grievance redressal system across the country (Nayak & Nehra, 2017; Puri, 2017). Among the three states/territory studied, Delhi had the most visible effort to elicit grievances through civil society mobilization of communities to collect grievances. Despite these efforts, none of the complainants interviewed had received any intimation of their grievance in the months following their grievance filing.

Grievance redressal is the most significant institutional demand-side provision that exists in the NFSA, offering an open channel for beneficiary voices and concerns to be passed up to administrators to improve the implementation of the TPDS. As part of the larger rights framework,

it is intended to transform both the operations of the state as well as its relations with those it serves (Aiyar & Walton, 2014). However, in three different settings, we see that despite its existence on paper, it has not been borne out with any consequence anywhere. This study corroborates other findings on the dysfunction or nonexistence of the grievance redressal system throughout the country (Bhatnagar, 2017; Department of Food and Public Distribution & Government of India, 2015; Panigrahi & Pathak, 2015; Sinha & Patnaik, 2016). This is further muddled by the presence of individuals with conflicting interests tasked with adjudicating over violations of the NFSA, as in the cases of Jharkhand and Madhya Pradesh in this study.

6.4 Recommendations

Within the last few years, reports have arisen of starvation deaths of children and women in both Madhya Pradesh and Jharkhand (Bhatnagar, 2018a; Ranjan, 2018), despite the progress that both states have made in implementing reforms. While much of the focus has been placed on the use of biometric data and the Aadhaar program that have excluded eligible beneficiaries (Chatterji, 2017; Drèze et al., 2017; Sen, 2017), other critical problems persist in the operation of the TPDS including leveraging information asymmetry by local authorities or elites; skewed local dynamics of power; and the limitations of any technology in the presence of these two conditions.

The NFSA's supply-side governance reforms for the TPDS included the use of technology and recruiting community-based groups for delivery; the demand-side reform focused on creating a grievance redressal system to empower individual citizens. While technology can add convenience and ease to various program operations, it is best to assess whether the setting where this technology is to be applied has suitable infrastructure. Moreover, while technology that makes records and entitlements more transparent is welcomed, technology with glitches that can void the entitlements of individual beneficiaries, can do more harm than help. This can be especially onerous for communities where many members of the household are daily wage laborers and may not be able to appear in person to provide their thumbprint or collect their food grains.

As the technological intervention was only just commencing at the time of this study, things may have streamlined further since our visit. In Madhya Pradesh, while FPS are technically run by agricultural cooperative societies, these are rarely embedded within a local community, posing significant inconvenience to local communities who are able to purchase grains on only two or three days of the month. Perhaps more locally based groups could be given control of FPS to serve

the needs of their community members. Additionally, Madhya Pradesh's practice of paying fixed monthly salaries seemed to have positive outcomes as the FPS dealer's fate was not tied to the amount of grains sold, something that would be beneficial to consider in the operations of women's SHGs in Jharkhand.

However, the single largest recommendation for the success of these reforms has to be the installing of a functional grievance redressal mechanism that is representative of the community and free of officials with vested interests. This must be supported through greater awareness drives and grievance camps, as seen in New Delhi, to gather grievances as a collective and bring greater spotlight to the lapses in implementation of this program on a large scale. Other public avenues for engendering this awareness and accountability are through public hearings, which have also been conducted in several parts of the country.

The NFSA was a testament to several realities experienced in the Indian setting. It signaled that despite improvements in availability of food through increased agricultural production, as well as rapid economic gains through various pro-market policies, food security is still not a guaranteed outcome. It also demonstrates the power of civil society mobilization around socioeconomic rights and the impact of political will and governance reforms to provide basic welfare. However as noted at the outset, the strategies that have got India to this juncture will require a new direction to translate the rights stipulated on paper into functioning and accountable institutions.

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7. INTEGRATED CHILD DEVELOPMENT SERVICES (ICDS)

7.1 NFSA and the ICDS

A second core program under the NFSA is the ICDS, which identifies a number of nutrition entitlements to be delivered through the local *anganwadi* center (AWC). Pregnant women and lactating mothers are entitled to: 1) a meal, free of charge during pregnancy and six months after childbirth through the local AWC; and 2) financial maternity benefits of no less than rupees six thousand. For children up to the age of fourteen years, the Act stipulates that: 1) those between six months and six years of age will be given an age appropriate meal free through the local AWC that meets prescribed nutritional standards; and 2) for children up to eight grade or children between ages six and fourteen years, one free mid-day meal will be provided every day except on school holidays (Government of India, 2013b). There are also provisions for cooking meals, drinking water and sanitation in both schools and AWCs; children who suffer from malnutrition are also to be identified and provided free meals. However, unlike with the TPDS, the Act does not specify reforms or a separate grievance redressal mechanism for the ICDS.

While the NFSA grants these entitlements legal status, the ICDS has suffered from various governance challenges over the decades. Considering the ICDS is a complex program that has actors across different strata of government, private sector, civil society and community, few studies dissect the intricacies of procuring and distributing nutrition-related services and goods. Unlike with the TPDS, the NFSA provides no guidelines in implementing the ICDS or addressing the institutional gaps that have persisted in its operations. As a result, individual state-level experiences can offer insights not only on different approaches to running the ICDS, but also in how the passage of the Act has reformed or informed the programs in different regions.

7.2 Results

7.2.1 Process Net Mapping – Take Home Ration (THR)

Across the four districts of the two states, a total of 14 process net-mapping exercises were conducted with AWWs, along with key informant interviews of senior administrative officials in charge of the ICDS program. FGDs were held with mother beneficiaries of the AWC run by the interviewed AWWs, allowing for comparisons between accounts of the frontline workers and the

actual recipients of their services. The results of the process net-maps are presented below with a break-down of the steps involved in their monthly operations pertaining to nutrition.

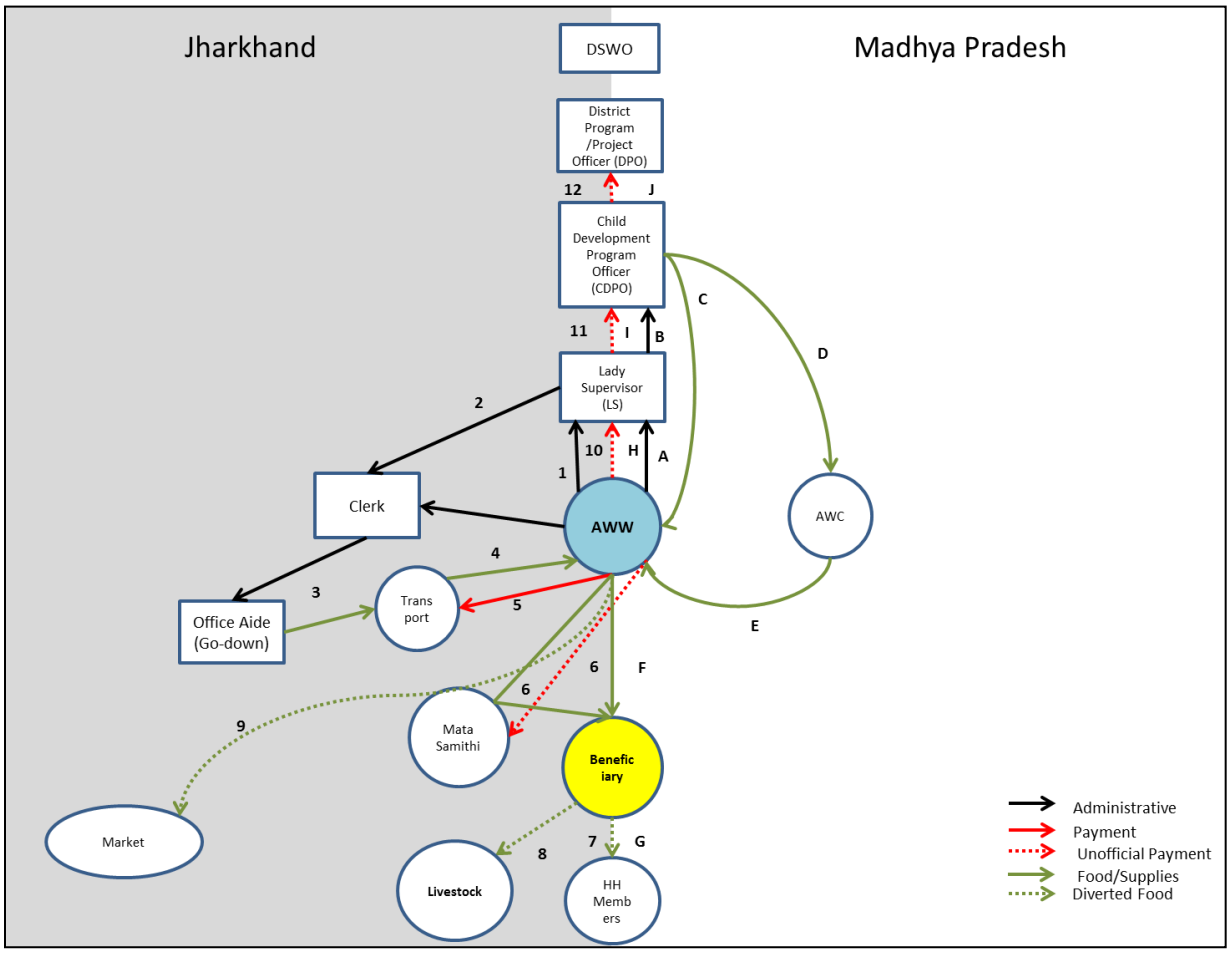

Figure 7.1: Process net-map for procurement and distribution of take-home ration packets

For those who do not come to the AWC on a daily basis to have a morning snack and afternoon lunch that meet government set standards of nutritional quality and quantity, nutritional assistance is provided through pre-packaged take-home ration (THR). These packets target pregnant women and lactating mothers, children aged 6 months to 3 years, and adolescent girls. In both states there was significant difference in the contents of the THR and the means of its procurement and distribution. Figure 7.1 identifies the individual steps involved in the movement of THR packets to the end users. This diagram also identifies the flows of payment (both official and unofficial), THR (both official and unofficial) and administrative processes.

For Jharkhand's ICDS, over the 8 process net-mapping exercises, the AWWs noted that the process of getting the THR to the AWC starts by presenting the relevant registers to the Lady Supervisor (LS) indicating who collected the THR in the previous month (Step 1). Upon review, the LS then directs a clerk who either himself or appoints another aid at the storage facility to release the respective number of THR packets (Step 2) and counts off the quantity as the AWW waits at the storage facility or office (Step 3). The AWW then has the packets loaded on the transport that she has arranged, usually an autorickshaw or tempo van, which transports the THR packets to the AWC (Step 4) and the AWW pays for the transportation from her personal funds (Step 5), costing upward of Rs. 100 (~ EUR 1.20) with some transporters charging per sack. Once at the AWC, the distribution of these packets takes place, typically on the Village Health and Nutrition (VHN) day held in the first week of each month. This distribution is done in the presence of frontline health workers (i.e. ASHA, ANM) and often confers the responsibility upon the *Mata Samithi*, or the Mother's Committee, with distribution (Step 6). The AWW noted this is intentionally done so that mothers do not accuse the AWW of cutting back on their THR or issuing other complaints. Once distributed to the mother and child, in the FGDs beneficiaries reported distributing the THR food with members of the family (Step 7). As a result, the THR intended to last four weeks or one month only lasts as few as five to seven days. Other FGD participants shared that for those who did not enjoy the pre-mix packets, the THR would be given to livestock instead (Step 8), with a few respondents claiming that the AWW was selling bundles of THR at the village market as livestock feed (Step 9). At the end of the month, the AWW must submit her registers to LS bearing the signatures of beneficiaries after collecting their THR (Step 10), however this often also involves providing some bribe to push through their paperwork and bills for reimbursement. Most AWWs reported that they believed this bribe moves its way up the chain of command to the CDPO (Step 11) and even the DPO (Step 12).

Similar to Jharkhand, AWWs in Madhya Pradesh also reported submitting reports at the end of the month with the registry of THR collection/distribution to the LS (Step A), who submits this information to the CDPO (Step B). After that, there is door-step delivery of the THR to the AWC (Step C). In cases where access to an AWC by road is difficult or otherwise remote, the AWC's THR is clubbed with the nearest AWC, where the THR will be delivered (Step D). In such instances, the AWW has to arrange for transportation from the AWC, such as an autorickshaw or bullock cart, often with personal funds (Step E). In contrast to Jharkhand's distribution pattern, in

Madhya Pradesh the THR is distributed to beneficiaries on a weekly basis (Step F), with exceptions made if the mother is a laborer and would not be able to come to the AWC on a weekly basis. In addition to young children and mothers, in Madhya Pradesh there was a separate allocation of THR for adolescent girls which did not come up with any of the AWWs interviewed or FGDs conducted in Jharkhand, though iron supplementation to adolescents was provided in some cases. While most AWWs admitted some payment being made to the CDPO or DPO during the recruitment process, most were not comfortable discussing the issue of bribes. However in meetings with physicians from the *Rashtriya Bal Swasthya Karyakram* (RBSK) programs who conduct daily visits to different rural AWCs to monitor children's health, they reported bribes are expected to be paid to the LS (Step H), CDPO (Step I) and even the DPO (Step J) who exert significant pressure on their subordinate administrators to extract timely payments.

7.2.2 Process Net Mapping of AWC Meals

The second component of the nutritional services through the ICDS is freshly prepared daily meals at the AWC. Figure 7.2 maps the individual steps and actors involved in the procurement of the supplies and distribution of the prepared meals, as well as the administrative interactions involved. Furthermore, the diagram notes flows of payments and food/grain supplies, both official and unofficial.

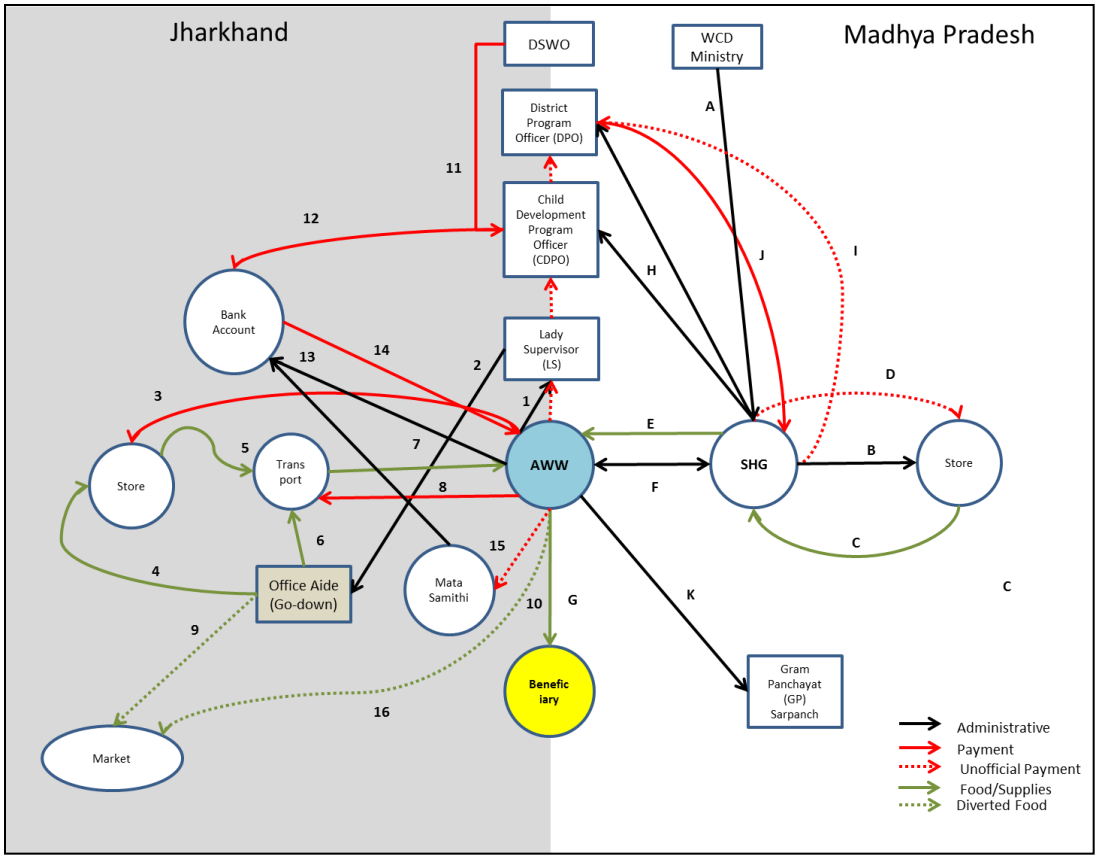

Figure 7.2: Process net-map for the provision of prepared meals at the AWC

In Jharkhand, the daily meals from the AWC are prepared in the AWC itself and previously saw the payment of approximately INR 10,000 (~ EUR117) per month to the AWW. This sum was used to purchase basic food supplies and grains that would later be disbursed as THR as well as be used to prepare daily meals. As of 2015, rice supplies for the AWC meals come from the Food Corporation of India (FCI; this agency also supplies/stores grains for the TPDS) as it is much more cost-efficient, according to district officials. As with the THR, the first step of procuring the supplies for the AWW comes through the submission of registers and receipts of basic food supplies to the LS at the monthly meeting (Step 1). As shown in Step 3, AWWs have to go to their respective FPS dealer to collect rice, often three months' worth in one visit. Here however, many reported delays and difficulties due to the unresponsiveness of the FPS dealers, forcing them to have to use their personal supply of rice to manage the day-to-day nutritional program. Many of the AWWs interviewed reported that they stored the supplies in their homes, which often were also where the AWCs were operated as no separate building was provided by the government for the AWC. In cases where the FPS dealer does not provide the grains, the AWW reported having

to lodge a complaint with the LS who then instructs or requests the local go-down to release grains to the AWW directly (Step 4) upon presenting a slip. The AWW then arranges the transport of the grains from the go-down to the AWC. Additional supplies like lentils, spices, salts and oil are purchased separately, but each item has a set budget issued from the CDPO office. As per the norms set, the AWC is supposed to provide a morning snack and then a lunch; the daily nutritional norms provided are that the child should be given 500 calories of energy and 12-15 grams of protein per day across these two meals (Government of India, 2013a).

Most AWWs reported that some form of bribe had to be given to supervising officers, whether the LS or the CDPO, during AWC check-ups or at the monthly meetings to make sure their expense claims were put through, or in the case of some lapse on the part of the AWW's performance, to avoid being reported. In addition, most AWWs reported having to provide some financial compensation/incentive to the accompanying member of the Mother's *Samiti* (Committee) when having to withdraw funds from their joint account. Some AWW felt this was necessary as the accompanying mother was losing a day's wages to come along. During visits to various villages, we often saw children carrying the meals home from the AWC where it is likely that the food is once again redistributed.

In Madhya Pradesh, there is a different model in the provision of the meals of the AWC as well as the type of THR provided. Since 2009, the *Sanjha Chula* (or "Common Kitchen") program has been operationalized which saw the rollout of a decentralized system of meal preparation through AWCs (Centre for Advance Research & Development (CARD) & Sambodhi Research and Communications, 2010). Instead of the AWW, this responsibility was delegated to women self-help groups (SHGs) already tied to other government programs, notably the Mid-Day Meal programs in government schools.

As the Madhya Pradesh process net-map reflects, with the absence of the nutrition and cooking responsibilities, the AWW has more time to focus on responsibilities pertaining to education, health services, and following up on community members through home visits. The AWCs here are open from 9 AM to 4 PM, far longer than in Jharkhand, to provide children a safe space while parents or caretakers are occupied with domestic or wage work. The activities are instead outsourced to the SHG, which as the map clearly indicates, now experiences the various problems that the AWWs faced in Jharkhand. The process commences with the SHG being issued a slip to collect grain supplies from an FPS (Step A) which they then take to the store (Step B) to

collect the supplies (Step C). However, in some cases store owners can be difficult and claim not receiving the stocks for the SHG, which may require some financial offering from the SHG to the dealer or the SHG must buy supplies from their own pocket (Step D). Food is often prepared in school kitchens along with the mid-day meals and transported to the respective AWC twice (Step E) where the AWW signs the SHG register and vice versa (Step F) to certify the delivery of food as per the guidelines. This is then distributed to the children as a morning snack and lunch (Step G). At the end of the month, it is the SHG that must file their expenses and claims with the CDPO office and may also be summoned by the DPO (Step H). Several of the SHGs interviewed expressed great delays in release of their reimbursement, with some SHGs having to abandon AWC operations altogether. Many felt the delays in repayment may be due to the expectation of some bribes from administrators (Step I). When the funds are finally released to the SHG, it is with the cost of the ration grains deducted (Step J). In all this, the AWW's role is to ensure the quality of the food delivered, for which she requires a monthly signature from the head of the village (Step K) to be able to receive her own salary. Of the three SHGs interviewed, two had to cease their operations for preparing AWC meals while one noted an ongoing nine month lapse in payments, indicating that these operations still face significant challenges.

Alternate Entry Points for Bribery

In addition to the listed entry points for bribes in the nutrition services of the ICDS, in both states other avenues for bribery were mentioned. In Jharkhand, one such point of entry was in maintenance and management aspects of the AWC. For example, the pathetic state of AWCs across India has been well documented. For AWCs requiring substantive maintenance or repair the CDPO or DPO will approve an amount of financial support, but the actual funds transferred will be less than the initial amount. This leaves the AWW responsible for gathering funds to bridge the deficit while the administrator pockets the difference.

In Madhya Pradesh, there is a weekly celebration among the women beneficiaries of the AWC called "Mangal Divas", literally meaning "auspicious day." This is intended to build community and celebrate various events, including recent births, pregnancies and other instructional events for adolescents. The objective is to improve participation at the AWC while disseminating essential information on maternal health and nutrition. Funds for these activities are issued to the AWW and the Mother's Committee, which must be withdrawn with a member of the

Committee present. Some AWWs mentioned that as the LS know they receive these funds, there is an expectation of getting a share from this funding in order to allow the AWWs to work unimpeded.

In both states what was most notable was that AWWs seemed to accept that even if a bribe had to be paid, it was due to some failure on their part. One AWW justified the practice, saying: "If you don't do the work properly, of course you have to suffer the consequences." When pushed further, many AWWs expressed that the expectations versus the support in managing these programs were discordant, setting them up to fail. Some explained paying a bribe "out of happiness" or a token gesture of thanks. However some AWWs firmly rebuffed this sentiment, saying "No one gives money out of any happiness/pleasure." These additional costs incurred in managing the ICDS invariably impact the performance of the nutrition services and resources available for the beneficiaries.

7.2.3 Beneficiary Response

Beneficiaries were convened to assess their satisfaction with the services provided through the AWC, with particular focus on the take-home ration (THR) and the daily meals. To facilitate the FGDs, in addition to collecting general information on the background of the participants, their households and access to other nutrition programs (e.g. TPDS), a matrix ranking exercise was conducted to identify which of the ICDS services were deemed the most important for the individual or their child.

Take-Home Ration (THR)

The actual consumption of the THR varied between the two states. As of 2015, the THR in Jharkhand consists of a powdered mix of soya, sugar, powdered lentil/chickpea, fortified wheat and in some cases powdered milk. In all the FGDs, respondents agreed that when the THR was initially rolled out, many experienced stomach trouble and diarrhea as the staple food for these communities is rice and many did not understand how this THR was to be prepared. Some described just mixing the powder with water and consuming it themselves or giving it to their child, despite instructions on the pack. For some this experience was enough to not use the THR for personal or household consumption, rather it was given to livestock as feed.

In the better performing district of Jharkhand, JH1, respondents claimed that the AWW was selling packs of THR to farmers for their livestock. Other respondents advised that while it took some time to adjust to the new THR, they and their children now enjoyed it as they had learned how to prepare it. In addition to personal preference, some respondents also reported that the THR mixture clots and clumps likely due to the sugar and milk powders in some of the pack formulae, making it less palatable. A few even mentioned that they found bugs in the packs, which may stem from poor storage of the packets, both at the beneficiary home as well as the AWC or block/district storage facility.

In Madhya Pradesh, the THR included both soya-based *halwa*, akin to milled wheat, and a more traditional meal of *khichdi*, a mix of rice and lentils. Therefore, most of the respondents did not indicate any difficulty or challenges in the consumption or preparation of the THR as they were similar to local dishes. However, a minority of FGD participants indicated that they too would use the THR for alternate purposes, such as using it to make *papad*, which is a fried wafer-like snack, and some also indicated they gave it to their livestock if they found the THR to be stale or old. This seemed less to do with taste preference, however.

In both states, all respondents indicated that the THR, whether intended for the child or the mother, would be distributed with the family, which dilutes the nutritional benefits for the beneficiary. Furthermore, the vast majority of women when asked about the nutritional benefits of the THR seemed unaware of its actual qualitative impact or benefit in their larger nutrition or dietary framework.

AWC Meals

In both states, beneficiaries seemed satisfied if any meal at all was provided at the AWC. In Jharkhand, most respondents indicated that breakfast snacks were rare but lunch was usually provided. During the field visits, alarmed *Anganwadi* Helpers (AWH) could be seen opening up THR packets to quickly prepare a morning snack fearing we had come for an inspection. Also during some village visits, children could be seen coming home with containers filled with a rice-based meal, rather than sitting and having it at the AWC itself. This does raise questions as to who all ultimately consume the meals once home.

In Madhya Pradesh, there was more planning when it came to the daily meals, which were publicly put up on menu boards at the AWC. As these meals are prepared by SHGs, there seemed

to be greater regularity in the availability and quality of the meals. This type of menu meals were on display only in "Model" AWCs in Jharkhand, which will be discussed in the coming section.

Matrix Ranking of ICDS Services

To further facilitate the dialogue, a matrix ranking was conducted with beneficiaries on the six key services of the AWC. Figure 7.3 shows the general distribution of preference among respondents of the services, with education and health being the most valued services. As many of the communities visited are located remotely from the nearest government facility, the AWC is their main resource, especially for antenatal monitoring and early childcare services such as immunization. In fact, with the exception of two beneficiaries in Jharkhand (none in Madhya Pradesh), no one seemed to express any reliance on the nutrition services from the ICDS. Explanations provided for this included that 1) the quality of the food was not so high and 2) as the THR did not last very long, it did not in any way change cooking needs or volume of the household (i.e. the same amount of food would still be made at home; THR was not a meal replacement).

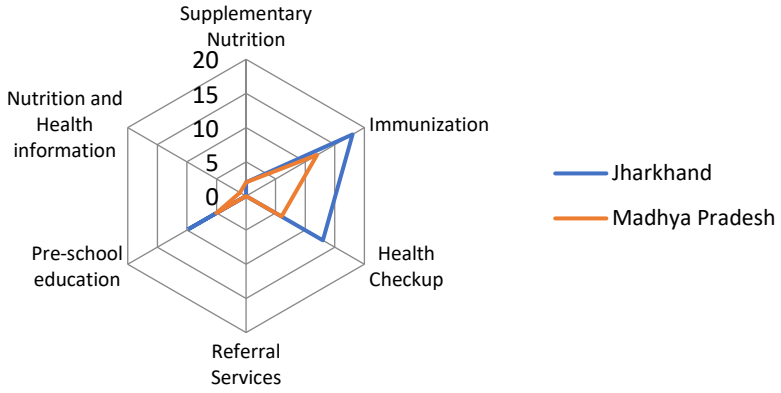

Figure 7.3: Distribution of preference among respondents of ICDS services

NFSA

In the FGDs, participants were also asked about the NFSA and whether they understood that the THR and supplementary nutrition were a part and parcel of their entitlements under the Act. No one was aware of the Act or its provisions, however most described satisfactory access to

subsidized grains through the TPDS. While a grievance redressal system was nonfunctional in both states at the time, in Madhya Pradesh, participants did mention that village level officials, such as the Gram Panchayat Secretary or *Sarpanch* ("head") were individuals that could be approached with problems or who were charged with monitoring the activities of the ICDS.

7.2.4 Model AWCs

In both states, we also visited and interviewed AWWs of "Model AWCs" which have been coming up throughout the country, often built under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). These AWCs are visibly clean, colorful, newer structures with a separate building. They also showcase investment in new toys, books and learning materials for children. In Jharkhand, this included diverse weekly menus which are the norm in Madhya Pradesh. However in the interviews with AWWs, when asked what is the objective of the Model AWC, they were unsure. Is it to incentivize other AWWs to improve operations? Or is it to show how services can be improved through better infrastructure and investment in the AWC? It remained unclear how actual operations would change with the advent of the Model AWC. Nonetheless, given the dilapidated structures in which many rural children are expected to sit in, the initiative is a welcome one and may encourage greater attendance and participation.

7.3 Discussion

The NFSA provides no concrete reforms for the ICDS, with the exception of a grievance redressal system and a maternity benefits scheme. Consequently, states have not automatically been instructed to implement supply or demand side reforms to address governance challenges in the running of the ICDS. This study attempted to understand how the implementation of the ICDS has changed, if at all, in the aftermath of the NFSA, and how states with greater improvement in child stunting levels can offer insights to other states in their implementation of the program. With regard to the monetary benefits to expectant mothers, neither state studied had an operational maternity entitlement scheme, and this has been an ongoing problem throughout the country.

Taking Madhya Pradesh as a positive deviant in its progress in reducing levels of child stunting, this study attempted to glean lessons from the state's experience with the ICDS to understand different initiatives and approaches that could improve overall performance in the nutrition services of the ICDS in other states, specifically Jharkhand.

A supply-side difference between the two states with regard to THR was that there was a greater consistency in both the distribution as well as the suitability of the THR to the tastes of local communities in Madhya Pradesh than in Jharkhand. What commenced as a common refrain among Jharkhand's AWWs of comparing the nutrition supplement to livestock feed, in many instances turned out to be a reality. This is partly because of poor implementation in instructing beneficiaries of the correct way to prepare the food, a key programmatic failure that resulted in various health and stomach problems. The other reason is that for many in the communities visited, rice is their staple and dietary preference and tastes differ from what is being provided. This corroborates other studies that note the crucial role of local demands and tastes in implementation of nutrition programs, including diversion of these foods to livestock in other Indian states (Drewnowski, 1997; E. et al., 2017; Saxena & Srivastava, 2009; World Food Programme, 2016). In Madhya Pradesh, on the other hand, the THR distributed conforms more to local diets, so no one indicated any preference for the previous system of rice or lentil rations being distributed. However in both states, though to a lesser extent in Madhya Pradesh, we find there are leakages that persist if the THR is not found to be of good quality and may instead be given to livestock. Alternatively, in the case of Jharkhand, we find there may be scope for larger scale diversion of these THR packets on the market as livestock feed, a new leakage affliction of which the ICDS has a long history (Malik et al., 2015; Swain & Kumaran, 2012).

The larger problem that remains with THR is that across both states, the intended beneficiary is rarely the one consuming the entirety of the provisions. The issue of intra-household allocation of food has been a persistent challenge in nutrition programming, policy and research (Cavatorta et al. 2015;). In Madhya Pradesh the AWCs abide by a system of handing out one packet per week, which ensures that some level of nutrition runs through the month for the mother and child. Invariably in both states, food distribution at the household level remains difficult to control for or monitor. Though most officials in Jharkhand described the change in the THR as being the result of cost-cutting measures rather than a concrete strategy, in traditional economics literature the provision of an "inferior good" can be seen as one way to guarantee that a certain good reaches the intended population (Mehta & Jha, 2014). In this case, providing THR that is not consistent with local diets could have been a way to plug two types of diversions: 1) black market sale of grains and lentils procured for THR distribution; and 2) diversion of THR to other

household members. However, neither of these seem applicable to the experiences of the beneficiaries interviewed.

This comparative case study also provided two different models of daily meal provisioning through the ICDS. In Jharkhand, the AWCs are still abiding by the traditional system of purchasing grains and basic ingredients themselves to prepare a snack and lunch daily for children. These costs must then be reimbursed through the CDPO office. In Madhya Pradesh on the other hand, these services have entirely been outsourced to women's SHGs, relieving the burden of the accounts and the actual preparation of these meals from the AWW so that she may focus on other essential activities, such as education, home check-ups and other assigned responsibilities. A well-documented supply-side challenge of the ICDS has been the workload of AWWs as a significant burden in completing various monitoring and reporting activities of communities on a regular basis (Adhikari & Bredenkamp, 2009; Gupta, 2001; Parasar & Bhavani, 2018). However, the responses of the beneficiaries were underwhelming as to the improvement in other services. In both states, beneficiaries pointed to the immunization services as the most valued service of the ICDS, with health services coming a close second followed by education. This shunning of the importance of nutrition may in part be due to various social factors, including shame or embarrassment to admitting in front of a group reliance on such THR or AWC meals (Maitra 2017). With the exception of one AWW who operated an AWC closer to the urban center, several AWWs described inadequate training when it comes to educating children, or even for the materials and toys that were sent to the AWC. Even without having to make meals, AWWs in Madhya Pradesh seemed to have to juggle new responsibilities as part of various other district and state-level schemes or programs, for example patrolling village residents for the Open Defecation Free (ODF) campaigns and enrollment of residents for Aadhaar and Voter IDs.

However, has the involvement of SHGs affected the delivery of meals through the ICDS? There has been much credit showered on streamlining of the mid-day meal (MDM) program with the meals for the AWC as part of the *Common Kitchen* program (Bose et al., 2014; George et al., 2017), which may explain the general satisfaction among FGD participants in Madhya Pradesh even though some felt the quality of the meals could be better.

7.4 Recommendations

One lesson that Jharkhand and other states can learn from Madhya Pradesh is the importance of matching local dietary needs and preferences when administering nutrition supplementation. The absence of this portends governance challenges of possible corruption or elite capture as to whose interests are being served when less suitable supplementation is being forced on an unwilling public. Madhya Pradesh also offers valuable lessons in terms of the benefits of longer operation hours, and the outsourcing of supplementary meals to women's SHGs allowing AWW to focus on other key aspects of the ICDS program which can be replicated in other parts of the country.

However, both states still seem to be suffering from age-old governance challenges, which were only addressed by the grievance redressal component of the NFSA. As the grievance redressal mechanism did not seem to be operational in either state or known to beneficiaries and AWW alike, this intended demand-side reform holds no water. In both states, administrators are still able to exert pressure on AWWs and even SHGs in the case of Madhya Pradesh, by stalling payments, threatening disciplinary action, and overburdening these workers with the responsibilities of various other public programs and schemes. Recently national and state government officials did raise the wages of AWW and AWH (PIB, 2018; The Pioneer, 2018). This is a welcome step to strengthen incentives for these workers, however it is unclear whether this will only feed the coffers of a long chain of public officials.

From the supply-side, Madhya Pradesh's initiative to delegate nutrition activities can be seen as strengthening the capacity of ICDS workers and creating a check and balance system between the AWW and the SHG. However, as our FGDs revealed, while regularity of meals exists, it is unclear what nutritional standards these meals meet, if any. Furthermore, when SHGs fail to receive their remuneration for their work, many are forced out of these activities, which then shifts the burden back to the AWW. From the demand-side, the grievance mechanism is essential for the future of the NFSA and guaranteeing legal entitlement to nutrition benefits. However above and beyond the law's existence, campaigns have to be made to spread awareness to the public on their rights and their relation to the state and service providers. Without a credible threat of being held accountable, AWWs remain at the bottom of a long food chain for corrupt practices, by pilfering budgets and supplies intended for the public.

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8. NUTRITION REHABILITATION CENTERS (NRCS)

8.1 Between the NFSA and NRCs

The NFSA focuses predominantly on two national programs, and the entitlements under the Act focus almost exclusively on providing food subsidies and food supplementation. While access and availability of nutrition are essential aspects to a right to food, as this study's conceptual framework shows, there is a large swathe of factors that are essential for ensuring optimal nutrition outcomes. While not a legally binding element in the Act, Schedule III of the NFSA lists "Provisions for Advancing Food Security" which are to be "progressively realized." These include a revitalization of agriculture through agrarian reforms and increased investments; ensuring livelihood security, especially farmers, through input and monetary support mechanisms; incentivizing decentralized procurement of coarse grains to diversify the food basket; access to clean water, sanitation, health care, nutrition, health and education, especially for adolescent girls; and pensions for senior citizens, single women and those with disability (Government of India, 2013).

By prioritizing food-based programs that have a long record of governance challenges and not adequately addressing equally important factors in ensuring food and nutrition security as per the Act's life-cycle approach, this study sought to better understand the diverse pathways to undernutrition. The success of any public program must consider the perspective, needs and experiences of the intended beneficiaries to ensure effective implementation. To explore the individual narratives and public understanding of the diagnosis of poor nutrition, visits were made to nutrition rehabilitation centers (NRCs), known as malnutrition treatment centers (MTCs) in the state of Jharkhand, to examine the rehabilitation of children diagnosed with severe acute malnutrition (SAM) and the experience of their guardians. In addition, the NRCs themselves were studied to assess the governance challenges faced by service providers and the dynamic between NRC staff, and patients and their mothers in the rehabilitation process. The focus of this study was to look at both the institutional challenges faced by service providers in these facilities, as well as delve into the lives of the mothers and children admitted which can explain what other factors may be contributing to poor nutrition and its understanding.

8.2 Participant and NRC Selection

Consistent with the previous two studies, the same states and districts were used in this work and a minimum of two NRCs were visited in each district. An additional NRC was only selected if there were no admitted patients at the visited NRC. In JH1 and JH2, all 6 MTCs across both districts were visited. In Madhya Pradesh, two NRCs were visited in each district, one in the district headquarters as this is the largest NRC with 20 beds, and one additional NRC was visited in a neighboring block. In Jharkhand, these visits were conducted between September and October 2016, while in Madhya Pradesh these visits were conducted from November to January 2017.

During each NRC visit, all admitted mothers who were available and willing were interviewed at the facility itself. All effort was made to distance the interview subject from the NRC supervisor to put them at ease. Records were also collected from the NRC nursing staff of patients who had been discharged six months prior to the visit to conduct follow-up visits. Six months was used as an adequate time frame to assess how the time spent in the NRC/MTC had impacted the mother and the care of the child since leaving the NRC. Mothers/patients were not randomly selected, but households were visited in the chronological order that they were admitted six months prior.

A minimum of two days was spent at each NRC with patients, conducting participant observation between the hours of 9:30 AM till 4 PM to examine the interactions between the staff and patients, as well as observe the various activities at the facility. Finally, in-depth interviews were conducted with mothers at the NRC/MTC regarding the health history of the child, as well as their experience at the facility. In the follow-up visits with discharged children, an effort was made to include both parents of the child in the interview so as to see how their understanding or care of the child has changed since being leaving the facility, as well as identify what challenges remain.

8.3 Findings

Status of Operations

MTCs in Jharkhand and NRCs in Madhya Pradesh are organized slightly differently for treating SAM cases. In Jharkhand, typically there is a Medical Officer in charge (MOIC) for an MTC, who oversees a team of auxiliary nurse midwives (ANM) or staff nurses, along with one support staff to clean the premises on a regular basis. In Madhya Pradesh, there is a larger team with more

defined roles. One MOIC is charged with visiting all the block-level NRCs in a district. There is an NRC-in-charge responsible for managing a specific NRC, who oversees a team of nurses, one feeding demonstrator (FD), caretakers (CT) and cleaning staff. Table 8.1 shows a breakdown of the existing staff and shortages of staff at each of the visited sites between September and January 2017. It should be noted that though six MTCs were visited in Jharkhand, at one facility we found neither patients nor staff during the visit.

Table 8.1: Staff overview in Madhya Pradesh and Jharkhand, 2016-2017

		Shortage of Staff		*Current staff*	
State		Medical Staff	Support Staff	Medical Staff	Support Staff
Jharkhand	JH1	4 ANM	Cook	2 ANM, MOIC	Sweeper
	JH1	1 ANM	Cook	3 ANM, 1 MOIC	
	JH2	1 ANM	Cook	1 MOIC, 2 ANM	Sweeper
	JH2	1 ANM, Nutrition Counsellor	-	3 ANM, 1 MOIC	Nutrition Counsellor, Cook, Sweeper
	JH2	5 ANM, MOIC	-	3 ANM, 1 MOIC	-
Madhya Pradesh	MP1	MOIC, 2 Nurses	-	1 Nurse, Pediatrician	1 FD, 3 CT, 1 Cook
	MP1	1 Nurse		1 Nurse, NRC-in-Charge	1 FD, 2 CT, 1 Cook, 1 Sweeper
	MP2	1 Nurse	Sweeper	1 NRC-in-Charge, 1 MOIC, 1 Nurse	1 FD, 2 cooks, 3 CTs
	MP2	1 Nurse	1 cook	1 NRC-in-charge, 1 Nurse	1 FD, 2 CT

Across both states and all four districts, we found no facility staffed with all the requisite personnel as per the guidelines for the facility. Notably, all facilities had vacancies in medical staff, including in two cases no medical officers specifically assigned in charge of the NRC/MTC. Every center was missing nurses who are critical for ensuring the day-to-day treatment and recovery of SAM children. In Jharkhand, we also see that as there are fewer staff members, nurses must multi-task across administering medical interventions, preparing the diets and nutritional supplement for the children and overseeing other administrative responsibilities, such as data entry, billing and ordering supplies. The absence of cooks and sweepers in several facilities is also critical, as SAM children are particularly sensitive to poor hygiene and sanitation given many suffer from weak immunity. Regular feeding at two-hour intervals is essential and made difficult when there is no

committed member of the staff present to ensure the preparation of hygienic, nutritious and child-appropriate food throughout the course of the day.

Participant observation further corroborated that ANMs in Jharkhand are entirely running the operations of the MTC. At no MTC did we observe more than one ANM at a given time, which means these responsibilities fall entirely on the shoulders of a single individual, with some exceptions where there was staff to clean the hospital ward. In Madhya Pradesh on the other hand, the delegation of duties was clearer but not completely separate. Often Feeding Demonstrators (FD) would be seen aiding with record keeping or data entry, as opposed to exclusively focusing on the preparation of diet plans or providing counselling to the mothers.

Counselling, either in a group setting or on an individual basis, was never observed in any of the MTCs or NRCs visited. In an MTC in Jharkhand, a child could be heard crying continuously for over 30 minutes yet the ANM did not go to the patient ward to check the situation or see what might be the problem. The closest that a staff member came to counselling would be on their way in or out of the ward, to casually remark or suggest something to the mother on her handling of the child. One FD in Madhya Pradesh agreed saying, "Counselling is the biggest challenge due to the volume of work and shortage of staff. Counselling is seen as everyone's responsibility at any available time in the day." Another nurse in Jharkhand described the patients as being difficult to counsel: "They don't listen. Especially on issues of hygiene, they are not attentive and as a result the child keeps falling ill. It's unclear how much they will follow when they return home." During village visits to AWCs, a doctor working with the *Rashtriya Bal Swasthya Karyakram* ("National Child Welfare Program") declared, "NRCs are a complete waste. They don't change anything on the ground --- there is no counseling, and no reliable referral system at the village-level."

Madhya Pradesh has the longest experience in India with NRCs for nearly two decades, which may explain the streamlined organization structure at each NRC, both at the district and block levels. However in Jharkhand, each MTC seemed to operate differently from the other depending on the setting and in great part due to the shortage of staff. One of the MTCs visited appeared closed when we arrived, but soon the ANM arrived to open the facility and slowly one or two patients trickled in over the course of the morning. The ANM explained that though there is a need for SAM facilities in this area, mothers in the local community are not willing to stay at the MTC overnight as their main livelihood source is making *bidi*s, or local cigarettes. Consequently, this MTC functions from morning till evening with mothers bringing their children

for a few hours to be weighed and get some therapeutic feeding each day for the child. Aside from the ANM, no other medical or support staff was present on the days visited. While this provides some relief in the way of nutrition supplementation, other factors that are equally important to the wellbeing of such weak children, like sanitation and hygiene, cannot be controlled for when they are day patients at these centers.

Sanitation and hygiene are important aspects of treating SAM, however, in most of the facilities visited, the centers themselves did not reflect sanitary conditions. In Jharkhand, many of the MTCs were part of fairly old and dilapidated hospital campuses, often separate from the main hospital unit. On the other hand in Madhya Pradesh, many of the NRCs were placed adjacent to the pediatric wards, allowing for greater surveillance by medical staff as well as greater maintenance of the physical premises. Nonetheless, budget cuts were mentioned in both states as a problem, prompting one medical officer in Madhya Pradesh to reveal that the "Sweeper" budget had to be cut. Cleanliness was also one of the two main areas in need of improvement that respondents across both states indicated.

Household Background

To understand the beneficiary experience, all willing mothers present at 8 MTC/NRC facilities across both states were interviewed. The figure below captures a snapshot of the life of the families of SAM children, both admitted and discharged.

Table 8.2: Household background and characteristics

		Jharkhand (n=14+11)	**Madhya Pradesh** (n=35+15)
Cases	Admitted	14%	35%
	Follow-Ups	11%	15%
Children	Female	52%	48%
	Male	48%	52%
Mother's Education	None	61%	26%
	4th grade	13%	6%
	8th grade	22%	38%
	12th grade	4%	28%
	Higher Education	-	2%

Children	1 child	24%	28%
	More than 3 kids	36%	8%
	2-3 kids	40%	64%
Mother	Age at Marriage <18	88%	76%
	Institutional Delivery	64%	88%
	Mother Works Outside the home	71%	54%
Livelihood	Agriculture	60%	22%
	Migrant Labor	24%	2%
	Manual Labor	12%	44%
	Other	4%	32%
Income	I <= INR 3000	68%	58%
	INR 3000 < I <= INR 5000	24%	30%
	I > INR 5000	8%	12%

In both states, we interviewed roughly equal number of female and male SAM cases. Among these, approximately a quarter of cases in both states were the family's first and only child, while the bulk of respondents had two to three children at home. The vast majority of mothers in both states were married before the age of 18, though it should be noted here that these were approximate ages as many of the mothers could not recount their exact age. Instead additional information regarding schooling or other life events (e.g. menstruation, spacing between children, age at marriage) were used to approximate the age.

Majority of the mothers had institutional deliveries, though in Jharkhand the figures were substantially lower. In many of the interviews in Jharkhand, the reasons for not going to the hospital for delivery included a general suspicion that deliveries in hospitals entail caesarean sections which may prevent mothers from working afterwards; greater comfort to deliver at home; and the non-arrival or delay of various frontline health workers.

Between the two states, we see that in Jharkhand over 60 percent of mothers responded having no or negligible education, while this was only true for 26 percent in Madhya Pradesh where 68 percent of respondents had above 4^{th} grade education. In Jharkhand 60 percent of the respondents earned their livelihood through various agricultural activities, both on and off their own land, with a sizeable share migrating for work and the remaining respondents working in construction or other forms of manual labor. Respondents in Madhya Pradesh migrated far less and most were involved in manual labor, such as construction, loading and as attendants in stores. The second largest group worked as store keepers or taxi drivers, followed by agricultural workers.

Most notably, in both states nearly 90 percent of the respondents estimated a monthly salary of INR 5000 or less (~EUR 61).

Access to Other Entitlements

The Anganwadi Center (AWC) and Anganwadi Worker (AWW) play a crucial role in the identification and treatment of SAM children. As part of the ICDS' provisions, supplementary nutrition is one of the six core services of an AWC as well as a legal entitlement under the National Food Security Act (NFSA) 2013. Those eligible for supplementary nutrition include pregnant women, lactating mothers, children aged six months to three years, and children aged three to six years. For the first three groups, the supplementary nutrition is provided by means of a take home ration packet that should grant each individual four packets per month. In Jharkhand, these packets are usually given out on the Village Health and Nutrition (VHN) Day once a month, while in Madhya Pradesh a packet is given each week. For the fourth group, this supplement nutrition is to be given as freshly prepared hot snack and meal on a daily basis at the AWC.

Table 8.3: Beneficiary's access to NFSA entitlement programs

TPDS		**Jharkhand**	**Madhya Pradesh**
	Receiving grains	58%	77%
	No ration card	42%	23%
	Missing members from card	67%	26%
	Gap in ration	40%	11%
ICDS			
	Irregular or no Take Home Ration (THR)	35%	14%
	Irregular or no weighing of child	38%	30%
	THR < 4pkts	45%	19%

In Jharkhand, over one-third of respondents reported receiving either no packets or receiving these packets irregularly. In addition, among those who did receive the packets regularly, 45 percent reported that they received less than the four packets to which they are entitled. In Madhya Pradesh these figures were better with only 14 percent reporting irregular or no packets distributed and 19 percent receiving fewer packets than they are entitled to. Almost all respondents confirmed that the packets would be distributed across all present family members rather than given only to the intended beneficiary (i.e. mother or child), and most respondents did not seem aware of the intended nutritional impact of the THR. One mother said, "If you make something at home, how

can you not share it with the other family members? Everyone likes it, and eats." Other beneficiaries of the THR included livestock, such as goats and cows, and sometimes the grains were creatively recycled to make *papad*, a savory fried/baked snack item eaten with meals. AWCs also play a critical role in monitoring the development of young children and in both states regular weighing of children is still an issue, with 38 percent and 30 percent in Jharkhand and Madhya Pradesh reporting irregularities, respectively.

Another critical food and nutrition program is the Targeted Public Distribution System (TPDS), which provides subsidized grains of wheat and/or rice to households. Grains distributed through the TPDS are also a legal entitlement, with every member of an eligible Priority household entitled to five kilograms of grain, and households deemed the poorest of the poor entitled to 35 kilograms of grains. Among the guardians interviewed, 58 percent and 77 percent of eligible families in Jharkhand and Madhya Pradesh, respectively, reported receiving ration. In Jharkhand, this means that 2 out of 5 households were still not receiving their ration, and this rises to nearly two-thirds of ration card holders having missing family members and thus eligible for less than full ration entitlements. This figure was much lower in Madhya Pradesh where only 26 percent of households had missing household members on their ration card. Gaps in ration were also substantially higher among Jharkhand respondents, with 40 percent experiencing gaps in their monthly grain allotment.

Experience at the MTC/NRC

In both Jharkhand and Madhya Pradesh the medical staff of nurses and doctors described a very similar sequence of steps when admitting a child to the facility. During the study, no instance of admission of a child at the MTC or NRC could be observed first-hand, therefore this work relies on the advice of the nurses, the doctor, if present, and then triangulate with the mothers present at the facility.

Table 8.4: Admission to MTC/NRC			
		Jharkhand	**Madhya Pradesh**
		(n=14+11)	(n=35+15)
Symptoms	Other Symptoms	45%	35%
	Fever, Diarrhea	30%	37%
	Weight/MUAC	25%	29%
Admission Time	Immediate	8%	40%
	1 months or less	23%	26%
	2 months	38%	12%
	3 months or more	31%	23%

Mothers were asked what were the main symptoms prior to the child's admission to the NRC or MTC. Across both states, over 70 percent of parents said the symptoms had progressed to persistent fevers, diarrhea and further complications, including illnesses such as jaundice, malaria and typhoid. In Jharkhand, nearly 70 percent of respondents reported waiting two months or more to admit the child after the initial referral to the MTC. Several reasons were provided for this delay. Some mothers advised that due to pending agricultural work in the season or absent spouses who seasonally migrated for work, they had to delay admission. In some cases, the local AWWs or ASHAs would have to find or negotiate time to take the parent, often waiting for other referral cases to join so as to maximize a single day's trip to the respective MTC. Several others attempted various traditional medicines and alternatives before seeking admission at the MTC.

Table 8.5 shows a breakdown of various aspects of the admission and stay at the NRC or MTC. In both states, over two-thirds of referrals to the centers was still coming through AWW. In Madhya Pradesh, however, there were more cases of referrals through doctors, both at health centers and hospitals, but also through the RBSK program where doctors visit different villages daily at using the AWC as a mobile clinic, conduct check-ups of young children.

Table 8.5: NRC Referral and services

		Jharkhand (n=14+11)	Madhya Pradesh (n=35+15)
Referral	Doctor	18%	33%
	AWW/ASHA	65%	67%
	ANM	6%	-
	Others	12%	-
Services	Adequate Food	-	70%
	Mother Tests	16%	78%
	Child Tests	73%	91%
	Education	47%	57%
	Doctor Visits	67%	82%
	New Knowledge	7%	10%
	Readmission to NRC/MTC	0%	32%
	Confirm Receipt of Compensation	27%	42%

Upon arrival at the MTC or NRC, a slew of tests must be conducted for both mother and children, including blood tests for both and often x-rays, in addition to MUAC and weight measurements of the child. Here there is a huge difference in the response of mothers in Jharkhand and Madhya Pradesh, as 16 percent reported tests being administered for them in the former while 78% responded having tests done in the latter. This is both a breach in protocol but also a huge problem considering over half the children admitted to these facilities are still at an age where they are being breastfed. A mother's health status would directly bear on the health outcomes of the child. However even when tests are conducted, most mothers responded that they received little feedback or explanation on the procedures themselves or their outcomes, with the exception when a child needed a blood transfusion before commencing the feeding regimen.

Mothers or guardians are also asked to provide their bank details for transmitting the compensation for their stay at the facility upon completion of their stay. In cases where mothers do not have accounts, they urge a family member to set one up and in the interim support the mothers temporarily through direct cash payment. This was especially important in Jharkhand where at the time of this study, mothers were not provided with meals during their stay at the MTC, whereas in Madhya Pradesh they were provided at least two meals and snacks every day.

Guardians in Jharkhand were expected to either purchase meals from nearby shops or where available, get meals from the "*Daal Bhaat Yojana*" which provides a daily lunch to the public consisting of rice and lentils for Rs. 5 (~EUR .06). In our interviews, most mothers reported either having family members deliver their food on a daily basis, sometimes across long distances, or having to prepare food themselves on the hospital premises. They would bring rice, wood for fuel and pots to prepare their meals. In Madhya Pradesh 70 percent of mothers/guardians responded that the meals were filling, however those who felt it was not sufficient would supplement with food brought from home or their relatives.

At the facility itself feeding is a major part of the rehabilitation and recovery of the child, however other aspects are equally important, particularly regarding the education of the mother. Here however, we see gaps regarding the counseling and education of the mother during the two weeks she is at the hospital. Only 47 and 57 percent of the respondents indicated any education or counseling during their stay in Jharkhand and Madhya Pradesh, respectively. In none of the visits at any of the MTCs or NRCs did we observe any kind of educational or counseling session of the mothers even though it was mentioned by all NRC and MTC staff as one of their responsibilities, and even provided a daily breakdown of topics in Madhya Pradesh. Of those who reported some level of knowledge or education dissemination, a very small fraction found this information on feeding, sanitation and hygiene to be new.

Post-MTC/NRC

In the follow-up interviews conducted in Madhya Pradesh we find that nearly one-third of the women interviewed had been admitted to the NRC more than once, both prior to our referenced admission or since. In Jharkhand, on the other hand, none of the women interviewed indicated that they had previously admitted their children to the MTC or had considered readmitting the children since their last admission despite many indicating that symptoms had resurfaced, such as diarrhea. Some of the follow-up cases in Jharkhand had left the MTC before completion of their time and the main reasons for this included feeling lonely and uncomfortable at the MTC. It should be noted that these mothers belonged to tribal communities and did not speak Hindi very comfortably. They also felt that some of the staff at these facilities, specifically those responsible for cleaning, were very harsh with them. In one instance, while waiting to interview the MOIC, we witnessed the

verbal abuse of a caretaker or sweeper when a child had soiled a bedsheet. One mother reported, "I was afraid to go back for fear of being chastised by the staff for having left."

Despite the prevalence of cases which had been readmitted in Madhya Pradesh, in both states there still seems to be a reliance on informal avenues to treat SAM symptoms. In Madhya Pradesh, medical staff in one district NRC described a common alternative sought by families are fraudulent doctors, colloquially "quack" doctors, who provide conflicting advice or counsel to that of the NRCs. All the discharged women from this district NRC who were interviewed were aware of the same quack doctor, and one of the follow-up cases had also consulted with him. She showed the products he had prescribed for the treatment of her child's low weight and other SAM symptoms. The mother expressed satisfaction with the quack doctor and his prescription, adding that she felt the child had gained weight and looked healthier. However, for the medical staff, these quick-fix solutions are problematic in the long-run for any child.

In both states, the biggest challenges women faced at home was to replicate or maintain the conditions at the MTC or NRC. These include an inability to purchase certain ingredients that were the staple of the diet in the hospital facility, specifically milk. Many mothers being the main caretaker of elderly or ailing family members admitted that they are still not able to give as much attention to the children due to their other responsibilities. In the matter of sanitation and hygiene, many mothers reported trying to always boil water and keep children clean, however the vast majority in both states did not have toilets in their home.

Finally, both states offer compensation for the mothers when staying at the MTC and NRC, as well as financial incentives to frontline workers (AWW, ASHA, AWC Helper) for bringing patients to the facility and ensuring their follow-ups. Mothers in Jharkhand receive INR 100 per day for each day of their stay, while mothers in Madhya Pradesh receive INR 120 (~EUR 1.48) per day, and INR 100 (~ EUR 1.23) additional for conveyance. This is somewhat less than the daily wages set under India's public works program, which offers a daily wage of INR 172 (~ EUR 2) as of 2017. Madhya Pradesh also provides additional compensation for the follow-ups of INR 220 (~EUR 2.71) each and nutritional packets. In Madhya Pradesh, over half the respondents confirmed receiving the compensation but this figure was lower in Jharkhand. In majority of the responses, the mothers had either not checked on the status of payment, or she did not know if the money had come into the account as the husband manages it. In Madhya Pradesh, some respondents indicated they received the initial sum of INR 1780 (~EUR 20) but did not receive the

money for follow-ups. The financial incentive however did not appear to be a strong motivation factor for the mothers, who in most cases would still delay admission to finish work at home or wait for family members who can manage the household and the other children. In Madhya Pradesh, in multiple NRCs there were also concerns about how effective health and AWW were in referring SAM cases, even with financial incentives. Given the workload of an AWW, taking an entire day out to admit patients did not appear a top priority from the perspective of the NRC and MTC staff, especially since the larger pay-off comes much later with successful completion of the follow-up visits by the mother and child.

The final provision for discharged patients from an NRC or MTC is that they are supposed to receive double their THR entitlements from their local AWC and in none of the cases we followed-up did the parent or guardian report receiving double their entitlement of THR, which would be eight packets instead of four per month.

8.4 Discussion

India's NFSA calls for a life-cycle approach to food and nutrition security, which requires critical interventions throughout the course of an individual's life. While programs like the ICDS and TPDS have been the pillars of food security and nutrition for decades, much of recent scholarship recognizes that there are various other factors that contribute to overall health and nutritional wellbeing. NRCs and MTCs provide a self-selected sample of the population that have, despite these various provisions, slipped into nutritional deprivation. Studying such facilities and their patients' experiences can offer valuable insights not just on clinical outcomes and operations of such facilities, but also on how these families cope with the diagnosis, its treatment and how they rehabilitate a child in the long-run, whether through domestic practices and education or through availing of other nutrition entitlements.

The conceptual framework for this study lays out how both demand and supply-side factors must be a good fit in a given context to yield desired policy or social outcomes. While there are no specific guidelines for how NRCs should function or be reformed within the NFSA, many of the demand and supply side conditions are still applicable to this program. Moreover, as these programs are focused on medically severe cases of wasting and SAM, it can shed light on the various "Other Factors" that are also a part of such a framework to achieving optimal nutrition outcomes that are otherwise not being addressed within our model.

This study has compared NRCs in two states with special focus on the experience of mothers and their SAM children before, during and post the NRC. Perhaps most notably, we tried to interact more intensively with the caregivers, generally the mothers of SAM children. As envisioned by Bengoa (1964), the success of such facilities and programs rests on the engagement of the mothers or caregivers of affected children, but who are too often overlooked in such facilities in India and in the wider literature on NRCs.

Interviews with staff and medical personnel at the MTC or NRC revealed staff shortages in all facilities and districts and key supply-side obstacles in building capacity for implementing such a program. This meant that in Jharkhand where MTC roles are less differentiated, the bulk of the management of the MTC fell on the shoulders of a single ANM at any given time. This however is not new in the broader academic literature on the public healthcare system in India, where shortages of medical staff is an epidemic (Bhaumik, 2013; Sharma, 2015). NRCs and MTCs are mere casualties in a larger crisis to incentivize and facilitate the training of more medical professionals at every level. However in the case of treating SAM, the one role that is stipulated in the operation guidelines but never surfaced in the interviews with staff was that of the Medical Social Worker. In the 75 interviews conducted, while there are undoubtedly similarities and overlaps in the challenges faced by the child and its family, there is also the need for individual attention and customized counseling. Especially in instances where women reported alcoholism, mental/physical abuse and mental health problems, no amount of counseling on nutrition can mitigate the effects of such conditions on the wellbeing of the mother and her children. Budget cuts were also reported by NRC/MTC staff, which invariably meant cuts to funding for Sweepers or Care Takers that are essential for ensuring a safe and hygienic environment for the children admitted.

Beyond the staff and funding, local dynamics also pose challenges for the running of MTCs and NRCs as envisioned. For example, the unavailability of necessary ingredients for making TF-100 for the feedings seems like a fundamental problem for which the ANM we interviewed had neither a solution nor anyone she could approach. In addition, the inability of mothers to fully commit to a 14-day stay at one MTC means that some facilities have had to compromise on monitoring other critical aspects of a child's rehabilitation while providing check-ups and nutritional supplementation, which may explain the cynicism some medical practitioners have of

these facilities being merely another program for feeding or supplementary nutrition (Dasgupta et al., 2014).

Among the critical demand-side obstacles for the mothers of SAM children are the numerous social and cultural determinants that hinder a mother's ability to both identify and demand better conditions for nutritional outcomes. Through the in-depth interviews there were certain key traits found across the majority of mothers, most notably the prevalence of child marriage and in many cases pregnancy and delivery of their first child before the age of 18. Child marriage is a practice that is still far too common in India and as has already been discussed through extensive research in public health literature that suggests that risks are greater for malnutrition in children born to mothers married as minors (Raj et al., 2010). Add to this the fact that in both states mothers were not completing secondary education, with 60 percent of mothers in Jharkhand not having any elementary education. In the vast majority of cases in both states, the three main reasons for either no schooling or discontinuation of studies were distance to the nearest school, work load at home, and pressure for marriage. With regards to education, there are several studies that show that child underweight and stunting are significantly higher when the mother has little to no education (Deaton & Drèze, 2009; Naandi Foundation, 2011).

At the household level, the vast majority of the population in both states live on low wages, with Jharkhand respondents still heavily reliant on agricultural labor and migrant work to support themselves. In Madhya Pradesh, there was a greater range of livelihood sources, with far less reliance on migration but agriculture, transport services and small enterprises being income generating activities (Keshri & Bhagat, 2012). Majority of the mothers also reported working outside the home, mainly in agriculture. Migration is a growing trend as agricultural work becomes increasingly difficult to sustain throughout the year. In the quest for income generating activities, however, leaving one's village can often cut an individual off from various social safety nets which are tied to a home address.

At the outset, four key objectives were listed as per government guidelines for the management of NRCs. The first two objectives focus on the SAM patients and reduction in mortality of these children, and the promotion of physical and psychosocial growth of children with SAM. This study did not focus on the medical or clinical technicalities of the treatment and its outcomes, rather it focused on the perceptions, understanding and experience of both service providers and mothers in the treatment of SAM children. Overwhelmingly, mothers perceived that

their children were improving while at the NRC or MTC, though many did not identify major differences in the care of the child between home and the facility.

Madhya Pradesh had an early start with NRCs given the acute state of nutritional deprivation the state identified early on, and has moved to shore up state resources to identify and treat as many SAM cases as possible through the largest network of NRCs in the country. From this study, there are certain common-sense practices that other states, like Jharkhand, could immediately implement to improve the experience of patients. The first is food – considering severe malnutrition is the problem being treated, it is surprising that day-to-day food provisions are not there for the attending parent or children who have to come along when the SAM child is admitted. This can not only deter admission, but can impair the health of the mother, who is often still breastfeeding at the time of admission. Furthermore, a SAM child may be exposed to various germs or bacteria when the mother continues to work outside the NRC to prepare her own meals.

Some level of sensitivity has to also be considered among the personnel of the MTCs in Jharkhand where many of our respondents hailed from tribal communities with varying linguistic and sociocultural backgrounds. Considering the widespread shortages in MTC staff in most facilities, these factors may go unaddressed but have substantial consequences in improving the experience of mothers while at the MTC, and prevent leaving a facility before the child is rehabilitated due to loneliness or in some cases prejudices of MTC staff. Furthermore, better understanding of these communities can ensure comprehension on issues relating to a child's health and nutrition.

In Madhya Pradesh, even though mothers reported staff as being very friendly or pleasant, education and counseling remained a challenge. As our findings show, most mothers did not learn anything new, and often did not see how household nutrition, sanitation or hygiene might be responsible for the child's health. Many went so far as to say they did not see any difference in the quality or quantity of food being provided to the child at the facility versus home. In just one MTC in Jharkhand did patients who had been discharged recall the education and counseling sessions as it involved various multimedia and visual aids to educate the women. Interestingly other facilities also had a separate room for women to sit, toys for the children and multimedia equipment, however these spaces were locked and the nurses in charge did not give entry to the mothers or their children.

8.5 Recommendations

The state of NRCs in both states shows great disparity and is an expected result of Madhya Pradesh's longer history in operating NRCs in their state. Key recommendations for improving supply-side factors in both states to strengthen the management of NRCs include strengthening capacity and discretion, through hiring adequate personnel and staff who can better address SAM cases individually rather than applying the same approach to all cases.

Another means of strengthening supply side conditions is in improving the budgets of NRCs, which has been under duress, and leading to the discontinuation of vital maintenance personnel who are essential for preventing children who are already vulnerable upon admission to health complications. Budgetary support could also ensure that mothers are being provided meals in states like Jharkhand, where they currently have no such provisions.

To ensure the admission at an NRC has long-lasting impacts, a focus on counseling and education has to be strengthened, whereas currently there is generally no structure for such interactive programs. Without this type of engagement over the two weeks or more that a mother is at the facility, it is unlikely that sustainable change is possible, as we observe in the number of cases of readmission in Madhya Pradesh. In line with counseling, especially among mothers from more remote and ethnically diverse communities as observed in Jharkhand, some level of training should be given to NRC staff to show greater empathy in their interactions and dealings with these mothers. Often there are not only cultural but linguistic differences, which can also make the NRC experience for both the mother who is supposed to be receiving vital information for the care of her child, as well as for the medical staff who would not be able to effectively communicate with these mothers. Finally dietary options that are more in line with household budgets and resources, as conceived of by Bengoa is necessary for any of the benefits of the NRC's feeding practices be transferred to the home setting. Heavy reliance on products such as milk can often not be replicated by mothers as this is beyond their financial means.

Beyond the NRC operations themselves, two other factors become evident in the interviews. One, while causal relations cannot be established from this specific study as to what may have been the culprit in a child's deteriorating nutritional status, many of the patients admitted indicated problems in accessing other social programs and benefits, including the TPDS and ICDS. Strengthening of this access overall is imperative, and educating women who come about availing their benefits, especially now that they are a right, would go a long way to curb some portion of

strain experienced by financially insecure households. Second, the experiences of the mothers at NRCs are a rallying cry for far-reaching reforms to improve the state of women and young girls in India in general. Poor levels of education, limited personal and reproductive choice, and insecure livelihood sources are all influential factors in the nutritional outcomes a child born to such girls or women. Strengthening ties between AWW of the ICDS and NRC administrators can be a starting point to better address the cyclical nature of poor nutrition, including through better supervision by AWW of discharged patients when they return to the community.

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9. CONCLUSION

The National Food Security Act came as a welcome victory after nearly a decade and a half of agitation and mobilization to recognize the right to food in India. Two aspects of this legislation were critical: 1) it granted a legal entitlement to existing food and nutrition benefits to the majority of the Indian population, and 2) it proclaimed a life cycle approach to achieve food and nutrition security. In the years since the bill's passing, a verdict is still pending on how successful the Act has been in achieving the gains of securing food and nutrition security for two-thirds of the population. While the Act and its implementation have grabbed many headlines, far less work has examined how the few reforms the Act outlines, can curb the governance challenges that have plagued many of India's social welfare programs for decades.

This thesis aimed to map the institutional functioning of two core programs of the Act, the TPDS and the ICDS, which have for several decades existed as the dominant programs in addressing food and nutrition security in India. Through a range of qualitative methods, these programs were mapped in the wake of the Act to understand the operations, stakeholders and institutional challenges that persist. Furthermore, nutrition rehabilitation centers (NRCs) treating severe acute malnutrition among children were also studied to understand the institutional management of such cases and the challenges faced, as well as to engage patients and their households on their understanding of undernutrition and the pathways of acute undernutrition. These narratives cast light on the changing realities for Indians and circumstances that may exacerbate conditions that lead to poor health and nutrition outcomes for their children.

9.1 Outcome of Demand-Side Approaches

Civic Discourse and the Language of Rights

The movement that led to the passage of the Act has in and of itself become a rooted demand-side strategy and resource for the public. With the success of various rights-based legislation, these nation-wide campaigns and groups have continued to be active in publicly clamoring for reforms that either have yet to be implemented or need to be addressed. Especially in the capital of Delhi, such groups have been at the forefront of leading public hearings, carrying out strikes and appealing through the courts for more reforms and holding government accountable (Bhatnagar,

2018b, 2018c; Shukla, 2018). Hence creating a legal entitlement has been able to galvanize members of civil society to probe public officials and use public fora to air the gaps in the implementation of various entitlements.

The extent of such groups and movements, however, is a different issue. While many are based in urban areas or the capital, it is unclear how much of this outreach is able to reach the most remote and marginalized areas despite their best efforts. During the course of this field work, it became abundantly clear that in both Madhya Pradesh and Jharkhand, there was minimal understanding of one's rights and entitlements under this Act. Therefore translating the strength of that movement to the more marginalized and remote areas of the country through either local NGOs or various community-based groups will be essential in scaling up the collective power to bring meaningful reforms that are suited to the context of local communities.

Grievance Redressal Mechanism

While the NFSA specifically stipulates a grievance redressal mechanism at multiple levels of administration as well as in the state government, in most study sites visited, it has not been operational. As learned in Delhi, district officials had to be confronted by civil society groups to learn that they had been appointed the District Grievance Redressal Officer, adding one more task to the lengthy list of duties and responsibilities these officials already bear. In Jharkhand, it is more troubling that while in theory there is a grievance committee, it consists of the very people who many FPS dealers had identified as extorting money or grains from their allocation. The combination of weak political will in setting up these grievance bodies, poor dissemination of information to the greater public about their existence and no concrete guidelines requiring a minimum time frame to respond to grievances or issue hearings have hampered the ability of this mechanism to exact justice. District officials also felt that such a mechanism is not the most helpful for poorer individuals who would have to sacrifice working days to attend such hearings, which itself weakens the empowerment effect of such a system.

9.2 Outcome of Supply-Side and Mixed Approaches

Technology: A Boon and a Bane

As this study revealed, the reforms stated in the Act have had mixed effects. The use of technology while perceived as a silver bullet by most administrative officials proved to have both practical

and institutional limitations in curbing governance challenges. This study corroborated the findings of several other reports of the infrastructural shortfalls that make computerization up to the point of sale at times faulty (Bhatnagar, 2018b; Sen, 2017). Moreover, technology was viewed as a means to address the challenge of pilferage and leakages from the TPDS system through transparent electronic records of food grain movement and entitlements, but also through the use of biometric means to verify the authenticity of a beneficiary. As discussed in Chapter 6, however, transparency in terms of more information being available to the public does not actually reform the challenge of accountability and responsiveness of the state to gaps in implementation (Aceron et al., 2017). In this case, technological advances have managed to cut down on various fake beneficiaries, but this has come at the cost of excluding legitimate beneficiaries (Drèze et al., 2017; Singh, 2018) Perhaps the most apt response to the use of technology was that of the FPS dealer in Madhya Pradesh who revealed that with or without technology, there has to be an official or authority figure who cares about the lapses that the technological solution is disclosing.

Moreover, the technological interventions prescribed do little to obstruct the distribution of poor quality grains or in cutting the amount ultimately sold to the beneficiary, as that is completely outside of the system and is digitally entered by the Dealer. With no effective complaint mechanism, the status quo can continue with no beneficiary able to voice themselves.

Empowerment and the Role of Women

The NFSA has an entire section devoted to women's empowerment and all three programs studied in this thesis hinge on the role of women. The Act not only makes the eldest woman in a household above the age of 18 the head for the purpose of availing subsidized grains, but also makes special mention of women's groups as a vehicle for grain distribution and the representation of women in the multi-tiered grievance and monitoring mechanism.

From a cursory glance, there does seem to be greater involvement of women as a result of these reforms, specifically in Jharkhand, though their emphasis on women's SHGs precedes the NFSA. In Madhya Pradesh, however, this is still an area that is almost entirely run by men. In both Madhya Pradesh and Jharkhand this study found that women's SHGs played a critical role, though in different programs. In Jharkhand, women's SHGs were given priority as FPS dealers while in Madhya Pradesh women's SHGs were given responsibility for providing meals for the ICDS nutrition program. A crucial lapse in practice, though, is that many FPS are registered in Jharkhand

under the auspices of a women's SHG but entirely run by a male relative. Jharkhand's women SHGs remained vulnerable to the forms of exploitation that have plagued FPS dealers in the past, including reduced grains received, bribes to retain their license or to ease their application for an FPS. However, for beneficiaries in the communities visited there was greater proximity to their local store for ration and there was greater regularity for purchasing grains. On the other hand in Madhya Pradesh, where male agricultural cooperative societies run the FPS, as one member of the cooperative runs multiple stores, beneficiaries had a much smaller window to purchase grains and many still had to travel longer distances.

Women's SHGs in the ICDS of Madhya Pradesh fared a similar fate, whereby beneficiaries seemed to find that there was greater regularity of meals, however the groups themselves were under pressure due to pending reimbursements from administrators. This meant that many SHGs would have to relinquish their ICDS activities at a loss without the repayment of their expenses.

9.3 The Missing Pieces

The absence of a functional grievance redressal mechanism or social accountability measures is a substantial gap in the rollout of the NFSA, and undermines the very basis for a rights-based approach (Pieterse, 2007). In addition to what is not being implemented, however, there exist major gaps in the Act's philosophy of approaching food and nutrition security. It claims to have a life-cycle approach when its provisions are very limited to rudimentary food-based provisions under programs that still suffer from governance challenges. This is disappointing in light of the research that has taken root over recent years that point to other systemic problems that are equally damaging to optimal nutrition outcomes (Coffey, 2015; Coffey & Spears, 2018; Story & Carpiano, 2015). The study of NRCs especially highlighted the compounding of deprivation that can result in severe wasting in children, even when these entitlement programs exist. Factors as broad as child marriage, compromised health and nutrition of the mother, poor sanitation and hygiene, insecure livelihoods and forced migration and general lack of awareness in identifying signs of poor health and nutrition, particularly if one lives in communities where such deprivation is prevalent (Kamath et al., 2015; Raj et al., 2010; Roy, 2016), all affect outcomes. Without a more holistic approach to food and nutrition security that examines these ancillary factors, tackling this challenge will remain elusive.

9.4 The Road Ahead

This study found that many things that are extensively discussed in academic and development literature as being solutions to addressing existing social ills, have in reality had a far murkier experience on the ground. Technology, group-based management of programs or collective action, and socioeconomic rights can hold great potential when an accountable institutional context is present. However in communities where there is great disenfranchisement of women, high illiteracy, poor infrastructure and an overall lack of awareness in basic rights and entitlements, these initiatives can stumble. Consequently, this underlines the idea that no single prescription is perhaps a cure for the varying settings throughout India where stark social, economic and cultural disparities exist.

One of the recurring themes across the communities interviewed was that there is greater migration during the year to find livelihood sources. This was far greater in Jharkhand where for many there is not much alternative in livelihoods, especially among tribal populations. The Economic Survey of India has also confirmed that of all states in India, Jharkhand loses the highest percentage of its working age population to migration during the year, nearly five percent. Furthermore, female migration has almost doubled across the country since a decade ago. As a result, even in cases where in their home village they have access to benefits, once they travel for work to distant towns or even other states, they are without any of the benefits of these programs. A critical reform in this context would be the portability of these benefits across villages and towns, if not also states, so that individuals are able to lead dignified lives without compromising basic necessities for their own or their children's health. As outmigration from rural areas continues with falling agricultural work and wages, much work has pointed to the growing numbers of urban poor and vulnerable groups (Bowen et al., 2011; "Migration from Jharkhand Highest in Country: Economic Survey," 2017).

A second path forward that can play a crucial role in bringing about tangible reforms to public programs is to propel the civil society movement that has brought India this far. In addition to the ongoing bouts of naming and shaming of officials, fighting cases in court and setting up committees to investigate cases of deprivation and exclusion, these groups can push for greater social accountability mechanisms. These include public hearings, social audits and grievance camps (Bussell, 2010; Feruglio & Nisbett, 2018; Swain & Sen, 2009), that not only provide

services such as registering complaints or assess the performance of programs, but they enlighten the citizenry about their entitlements and the power they have to claim these benefits.

The third crucial pathway to see tangible change requires not only reforms of programs but a revolution in the role of women in society. All the three programs undertaken in this thesis have one thing in common: to truly succeed they require the empowerment of women and mothers in a context where these individuals often have the least voice. Access to education, livelihoods and health services targeting young adolescents and women have to be pursued with a renewed vigor (Akter et al., 2017; Cunningham et al., 2015; Prillaman, 2017).

9.5 Limitations of this Study

This study required diverse qualitative tools to approach the study objectives. While these tools were especially selected for their strengths in teasing out the institutional challenges of implementing large scale food and nutrition programs in India, they still presented certain limitations. Limitations also exist by the very nature of the topic of this study as it draws a great deal of attention in the public sphere, whether in the news media or among administrators. Speaking about the irregularities of programs that have been the lifeline of India's nutrition programming comes at the risk of the interviewee, which may affect their responses.

For the study on the TPDS, the main methods used were the process net-mapping, key informant interviews, and focus group discussions (FGD). The mapping exercise is generally conducted with a representative group of stakeholders either with knowledge or involvement in the functioning of the program (Schiffer & Hauck, 2010). While there are many actors involved in the TPDS, the FPS dealer is one individual who must interact with all off them and is often attributed the most blame by the public when there are any gaps in service. Some may argue that given FPS dealers have been deemed an equal part of the problems with the TPDS, their accounts may be false. However, all responses were triangulated through direct observation, FGDs with beneficiaries, and interviews with government administrators of the TPDS, as well as civil society actors on the ground. Given their unique role in the larger system, they seemed ideal for this exercise and revealed systematic failings in program delivery, including their own infractions. However, the possibility remains that they may have held back important details or covered up the full extent of their own misdeeds.

With the ICDS study as well, one stakeholder who must interface with all the constituent actors in the system, the AWW, was the subject of the mapping exercise. Just as with the FPS dealer, to achieve a better understanding of the ground realities of how nutrition services are provided through the program, the AWWs seemed uniquely placed. Their responses were cross-checked with those of beneficiaries as well as government officials. Nonetheless, there was much more fear visible among the AWWs to speak freely, which may mean that their accounts were not fully transparent, or details have been altered to safeguard their professional interests.

At the NRCs, while every effort was made to interview admitted mothers out of earshot of the facility staff, there were a few instances where the nurse on duty would follow the subject around. In one specific instance, two program officers of the ICDS approached the interview session and aggressively inquired as to the nature of the exchange. They then continued to stand watch as the interviewer asked the mother a series of household-related questions. Consequently, it is difficult to know whether mothers felt the pressure or gaze of staff who are providing their child with essential services, thus affecting their responses.

In FGDs, while the beneficiaries generally seemed open and transparent about sharing their experiences with using the TPDS and ICDS, there may still have been some biases. For example, when asked about their dependence on the services of the ICDS, there may be some social desirability bias in the responses of those who do not wish to publicly admit to their need for such nutrition benefits for themselves or their child out of embarrassment or a sense of shame (Hébert, 2016; King & Bruner, 2000).

Being a female researcher and non-native of the study sites may have also affected how some subjects responded. This difference was most visible in dealing with FPS dealers in the two states. While there is always a general reservation to speak openly about the malpractices in implementation, it was easier to build trust and elicit more in-depth answers with the women dealers in Jharkhand. In Madhya Pradesh, however, most of the FPS dealers were older men who had been running these shops for the better part of two to three decades. The most open exchanges took place when there was a male field assistant present. It should also be noted that the communities visited in Madhya Pradesh seemed more conservative in the matter of interactions between men and women; women generally had their heads or faces covered when speaking to older men or men not from within the household. This made the researcher more conspicuous and

could have made some male dealers uncomfortable either due to the prevailing social norms or by posing a risk to their work in the presence of any bystanders.

In any study that requires participants to base responses on their memory, there is scope for recall errors. Furthermore, as this study undertook a case study approach, many of the findings reflect local settings, norms and conditions which are not representative of the country. In addition to the methodological limitation, mid-way through the field work, the Indian government demonetized over 80 percent of India's currency overnight. This cut short the field work in Madhya Pradesh and New Delhi, making it difficult to hold more FGDs and also access more government administrators. However, despite these limitations, this exercise opens one's eyes to the minutiae involved in the running of such programs at the community level and the demands it makes on stakeholders on the supply and demand side. It also provides tedious nuance on how various efforts which look good on paper run into friction on the ground, urging practitioners and policy makers to think twice before making blanket recommendations for any measure.

9.6 Conclusion

The NFSA and India's larger rights-based movement have established the power of civic mobilization and advocacy to advance a more inclusive agenda for the most vulnerable in Indian society. While this movement has created space to invoke one's rights for social entitlements, the reforms by which it hopes to achieve them may only be able to move the country halfway towards its food and nutrition goals. Rights without accountability, and nutrition policy that fails to look beyond the plate are unlikely to hasten India's progress in escaping the country's legacy of a life of contradictions for the masses.

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