**Food-security governance in India and Ethiopia: A comparative analysis**

Ivica Petrikova, Royal Holloway, University of London

**Abstract**

Despite recently legislating the right of all citizens to food security, India continues to suffer high food-insecurity rates. With respect to several measures, food insecurity in India appears to be actually higher than in Ethiopia, a country with only one fourth of India’s average per-capita income. This article examines comparatively the two countries’ food-security challenges and governance mechanisms and identifies several relevant policy areas for mutual learning – dietary diversity, maternal and infant nutrition, and sanitation as well as food production and programmes’ external oversight. Beyond India and Ethiopia, these findings are pertinent also to other developing countries facing similar food-security challenges such as Pakistan, Nigeria or Sudan.

**Key words**: food security; India; Ethiopia; Public Distribution System (PDS); Productive Safety Net Programme (PSNP); nutrition

**Introduction**

 In 2013, Indian parliament passed the National Food Security Act (NFSA), which proclaimed to guarantee Indian citizens a justiciable right to food. Nevertheless, despite this formal acknowledgment of citizens’ inalienable right to food and the country’s recent rapid economic growth, a large proportion of Indians is still food insecure. For example, 36% Indian children younger than five years are underweight.[[1]](#endnote-1) The comparative rate in Ethiopia, a country with similar food-security challenges but only one-fourth of India’s average per-capita income, is significantly lower, at 24%.[[2]](#endnote-2) India’s inordinately high food-insecurity level relative to the country’s income has been dubbed by some the ‘South Asian enigma’.[[3]](#endnote-3) By comparing the food-security situation and governance in India and Ethiopia, with a particular focus on food access and utilisation, this article contributes to research on the enigma’s causes and remedies specifically and on food-security governance more broadly. It identifies opportunities for the two countries’ mutual learning particularly in the areas of dietary diversity, maternal and infant nutrition, and sanitation. Whilst derived from the Indian and Ethiopian contexts, these lessons may be relevant also for other food-insecure countries in the Global South facing similar challenges such as Pakistan, Nigeria, and Sudan.

 The article’s next sections define ‘food security’, describe its state in India and Ethiopia, review the two countries’ key food-security policies and programmes, and finally reflect on suitable cross-country lessons. The analysis draws on information from national surveys (e.g. India’s National Family Health Survey [NFHS], Ethiopia’s Demographic and Health Survey [DHS]) and international databases (e.g. Food and Agriculture Organisation [FAO], World Development Indicators [WDI]), secondary sources including academic literature and policy reports, and semi-structured interviews conducted in India and Ethiopia with government officials and NGO workers between April and June 2017.

**What is food security?**

FAO defines food security as a state ‘when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life’.[[4]](#endnote-4) Food security stands on four pillars: food availability, access to food, food utilisation, and stability over time.

*Food availability*, according to the World Food Programme (WFP), denotes the amount of food present in a country/area through domestic production, imports, food stocks, and food aid.[[5]](#endnote-5) The term normally refers to the national or regional rather than household level.[[6]](#endnote-6) *Access to food*, in contrast, refers to households’ and individuals’ ability to obtain sufficient food through legal and conventional means, which include producing, buying, and receiving donations but exclude stealing and begging.[[7]](#endnote-7) *Food utilisation* relates to the body’s physical process of digesting food and utilising it in further functioning. Its fulfilment is affected by both the type of food consumed and health of the body consuming it and thus can be jeopardised by a lack of vital micronutrients, unhygienic conditions or poor health. Finally, *stability* or reasonable future certainty about having access to enough food in the future needs to be fulfilled as well to ensure lasting food security.[[8]](#endnote-8)

This article focuses on food-access and food-utilisation aspects of food security, which are most closely connected with household and individual food-security outcomes underlying the South Asian enigma. Food availability and stability, more related to national and regional food-security measures, are discussed only vis-à-vis their effects on household and individual food security.

**Food (in)security in India and Ethiopia**

 This section describes the socio-economic context of the two countries under study, portrays their respective food-security situations with reference to the four food-security pillars, and briefly discusses the South Asian enigma.

***Establishing context***

 India and Ethiopia constitute a suitable comparative case-study pair given their resemblance in several key economic and social indicators (Table 1). Even though India’s GDP per capita, adjusted for purchasing power parity, is almost four-times higher than Ethiopia’s, both countries experienced high economic growth in the past two decades. Their levels of economic inequality, measured by the Gini index, are almost identical as well, just below 34.

The two countries are also amongst the most populous on their respective continents. India ranks second in total population in Asia (and the world) to China, with 1.3 billion inhabitants. Ethiopia, with just over 100 million people, is surpassed in Africa only by Nigeria and due to high population growth estimated to attain more than 200 million by 2050.[[9]](#endnote-9) Additionally, the majority of population in both countries is still rural (India 67%, Ethiopia 80%) and employed in agriculture (India 51%, Ethiopia 73%).

There are also some important differences between the two countries pertinent to the comparison of food-security issues and governance. India’s staple grains are primarily wheat and rice, both internationally relatively widely-traded commodities, whilst Ethiopia’s include less widely-traded teff, barley, millet, sorghum, and white maize. Regarding the countries’ political regime, India is considered the largest democracy in the world whereas Ethiopia has been governed by a single party, the Ethiopian People’s Revolutionary Democratic Front (EPRDF), since 1991 in a highly authoritarian manner.[[10]](#endnote-10)

***Access to food and food utilisation***

 As food access and utilisation constitute this study’s main focus, I present India’s and Ethiopia’s performance in them first. The most commonly-utilised measure of food access is FAO’s ‘prevalence of undernourishment’, which expresses the probability that a randomly-selected individual from a given country consumes fewer daily calories than necessary for an active and healthy life.[[11]](#endnote-11) It is estimated using a combination of national food-availability and economic-inequality data and has been accused of inaccuracy by numerous researchers.[[12]](#endnote-12) Nevertheless, before considering alternative indicators, let us look at its evolution in the two countries under study. Figure 1 demonstrates that whilst between 2000 and 2015 the prevalence of undernourishment in Ethiopia roughly halved, in India it remained more-or-less the same. However, at 28.2% Ethiopia’s rate is still twice as high as India’s (14.5%).

 Alternative measures of food access, which also capture the quality of food utilisation, are undernourishment rates amongst children younger than five years available from the World Health Organisation (WHO). These measures are widely acknowledged as the best indicators of populations’ nutritional status as they are derived directly from national health surveys and closely correlated with undernourishment rates across populations overall.[[13]](#endnote-13) They include the prevalence of child stunting (too short for age), underweight (too light for age), and wasting (too light for height).

In contrast with data on general undernourishment prevalence, which showed India performing better than Ethiopia, child-undernourishment data (Figure 2) do the opposite. India’s and Ethiopia’s stunting rates are almost identical (38.4% and 38%, respectively) but ‘only’ 24% of Ethiopian children are underweight and 9% wasted as opposed to India’s 36% and 21%, respectively. Other relevant indicators, presented in Table 2, also point to somewhat better food utilisation in Ethiopia, with lower prevalence of anaemia[[14]](#endnote-14) amongst pregnant women (India 53.6%, Ethiopia 23%), lower prevalence of Vitamin A deficiency in the population (India 62%, Ethiopia 51%), and lower rate of open defecation (India 46%, Ethiopia 32%), which has been explicitly linked to better nourishment outcomes.[[15]](#endnote-15) Only access to improved water sources is significantly higher amongst Indian (94%) than Ethiopian (64%) households.

***Food availability and stability***

 Food availability is commonly measured through average dietary energy supply adequacy (ADESA), calculated by converting the country’s total food supply into calories relative to the country’s population needs based on lifestyle.[[16]](#endnote-16) Figure 3 shows that whilst India’s food availability has been more than adequate (>100%) since 1995, Ethiopia’s has approached adequacy only in recent years. One reason why India’s food availability in the last quarter century has been greater than Ethiopia’s is the higher level of India’s per-capita food production. However, contributing to the rising ADESA, Ethiopia’s food production has also experienced stable growth since mid-1990s (Figure 3). In line with these trends, India has been a large net food exporter since 1995 whilst Ethiopia has maintained in this timeframe a largely neutral food-trade balance. India’s food stock has, however, exhibited more fluctuation than Ethiopia’s, with its per-capita food-supply variability, a measure of food stability, more volatile than Ethiopia’s during the past two decades.

 The various statistics presented show that although India’s food availability has been clearly higher in the past quarter century than Ethiopia’s, the country’s national food abundance has failed to translate into satisfactory food security for all.[[17]](#endnote-17) In fact, despite significantly lower per-capita incomes and food availability, Ethiopian population appears more food-secure than Indian population regarding several food-access and food-utilisation measures. Is this a manifestation of the afore-mentioned South Asian enigma or merely of a fundamental genetic difference between the two populations?

***South Asian enigma?***

The term ‘South Asian enigma’ was coined in 1997 in order to highlight that significantly higher per-capita incomes in South Asian countries were associated with worse food-security outcomes, particularly child undernourishment rates, than in sub-Saharan Africa.[[18]](#endnote-18) However, some researchers countered that the higher South Asian undernourishment rates were driven by genetic differences between people of South Asian and other ethnic origins, pointing, for example, to findings that South Asians are at a higher risk of diabetes at lower Body Mass Indices than other ethnic groups.[[19]](#endnote-19)

The debate has not been settled to date; nevertheless, several pieces of evidence suggest that India’s persistently high food insecurity has deeper causes than merely a genetic one. First, studies have repeatedly shown affluent Indian children to follow statistically indistinguishable growth patterns from well-nourished children elsewhere in the world, at least until adolescence.[[20]](#endnote-20) Second, in the last two decades Bangladesh, whose population is ethnically akin to the Indian one, has unlike India experienced a rapid reduction in child undernourishment rates and food insecurity in general.[[21]](#endnote-21) Third, even if Indian child-undernourishment figures were slightly inflated due to some innate genetic differences, India has experienced a more sluggish rate of food-insecurity reduction than many African countries, Ethiopia included.

Comparing Ethiopia’s food-security issues and governance with India’s can thus likely shed light on some of the causes underlying India’s high food-insecurity prevalence and potential remedies. Nonetheless, given Ethiopia’s own food-security challenges, useful cross-country lessons can likely be drawn also in the other direction.

**Food-security programmes in India and Ethiopia and their performance**

This section reviews the two countries’ programmes and policies aimed at addressing household and individual food-security outcomes and evaluates their relative performance.

***Main Indian food-security programmes***

 India’s chief national food-security programme is the Public Distribution System (PDS). It is supported mainly by the Integrated Child Development Services (ICDS) and the Mid-Day Meal Scheme (MDMS).

PDS was established in India after World War Two, with the explicit aim to boost domestic agricultural production and bolster food security. Originally a universal government subsidy scheme for cereals, purchased from domestic farmers at guaranteed prices, in 1997 under pressure from the World Bank it was turned into a targeted pro-poor subsidy mechanism.[[22]](#endnote-22) Afterwards, it granted only people certified to live below the poverty line (BPL) the opportunity to purchase subsidised cereals, mostly wheat and rice (10 kg per household per month). An additional scheme, the Antyodaya Anna Yojana (AAY), enabled the 25 million poorest people in India to purchase up to 35 kg[[23]](#endnote-23) of subsidised grains per month. Individual Indian states were, however, permitted to make their PDS schemes more inclusive at their own cost, which resulted in more comprehensive programmes operating in states such as Chattisgarh, Kerala, Karnataka, and Tamil Nadu.[[24]](#endnote-24) In 2013, the NFSA expanded the theoretical PDS coverage to the poorest 75% rural and 50% urban citizens and allowed eligible households to buy up to 5 kg of cereals per person per month at even lower prices than before (rice 3 Indian rupees [IRS]/kg, wheat 2 IRS/kg, coarse grains 1 IRS/kg).[[25]](#endnote-25) By the end of 2016, all Indian states had formally begun implementing the NFSA.[[26]](#endnote-26)

ICDS, established in 1975, aims to supplement PDS in improving children’s food security by encouraging correct nutritional, feeding, hygiene, and health practices.[[27]](#endnote-27) Interventions within the scheme include the provision of supplementary nutrition and basic health services to children under six years old and to pregnant and breastfeeding mothers, of nutritional and health education to mothers, and of growth-monitoring, de-worming, and pre-school education to children. These services are delivered through a network of *anganwadi* centres (AWCs), staffed by government workers either providing help directly (e.g. pre-school education, nutritional supplementation) or liaising with other health workers (e.g. immunisations, health checks). The NFSA entrusted ICDS to provide pregnant women with maternity grants of 6,000 IRS.[[28]](#endnote-28)

MDMS, implemented in all Indian states from 2001, is also intended to promote child nutrition, specifically through primary schools.[[29]](#endnote-29) As specified by the NFSA, all students in public primary schools up to the age of 14 are entitled to receive a cooked lunch (450 kCal and 12 grams of protein lower primary, 700 kCal and 20 grams of protein upper primary).[[30]](#endnote-30)

***Main Ethiopian food-security programmes***

 Ethiopia’s key national food-security scheme is the Productive Safety Net Programme (PSNP). It was established by the Ethiopian Government and a donors’ consortium led by the World Bank after the drought of 2002/2003. Motivation for the programme came from the Ethiopian government’s desire to break the cycle of Ethiopia’s emergency appeals for food aid, which saved people’s lives but often led to asset loss. The original PSNP provided food and/or cash transfers to food-insecure households in chronically food-insecure *woredas* (districts), identified based on food-aid receipts in the past, in return for participation in public works. It was complemented by the Other Food Security Programme (OFSP), which provided productive-asset packages to households and invested in socio-economic infrastructure.[[31]](#endnote-31)

 In PSNP’s third round (2010-2015), the programme’s coverage was extended and improvements were made to the timely delivery of transfers and the quality of the public works implemented. OFSP was renamed the Household Asset Building Programme (HABP) and expanded to help households acquire assets through the provision of technical assistance, credit, and help with business planning. Following impact evaluations by the International Food Policy Research Institute (IFPRI), the fourth phase of PSNP, currently underway (2015-2020), further enlarged the programme’s scope.

 It currently covers seven out of nine Ethiopia’s regions, benefitting up to ten million rural and one million urban Ethiopians.[[32]](#endnote-32) Participant households with economically active members are entitled to 15 kg of cereals and 4 kg of pulses or their cash-equivalent (cash disbursement is preferred by the government and gradually increasing) per person per month for six months a year. In return, active household members must contribute up to five days of public work per month. The public works generally focus on community development, such as soil and water conservation, rangeland management, and construction of community assets including roads, irrigation canals, and schools.[[33]](#endnote-33) Household members unable to work (children, elderly, disabled, pregnant and breast-feeding mothers) receive PSNP food/cash support all year without contributing to the public works. The programme in its current format has also incorporated the HABP and thus offers technical assistance (e.g. agricultural extension to farmers), training in livelihood activities, and credit to enable households to increase and diversify their sources of income and acquire assets. Additionally, PSNP IV contains a strengthened nutritional element, which provides nutritional education to participants as part of the public works.

 Similar to India, since 2005 Ethiopia has also operated a school-feeding programme that provides hot lunch to primary-school students, specified to contain 150 grams of food prepared from grains or beans.[[34]](#endnote-34)

***Comparing food-access and food-utilisation governance***

A detailed analysis of the two countries’ food-security challenges and governance approaches has helped identify three main areas for mutual food-access and food-utilisation learning - dietary diversity and micronutrient intake, maternal and infant nutrition, and sanitation. The WHO data presented earlier showed that both countries still suffer from high rates of child undernourishment, with India more affected than Ethiopia. This may be partly due to households lacking access to sufficient calories, particularly in Ethiopia where the population’s prevalence of undernourishment is twice as high as in India.

The countries’ main food-security programmes - India’s PDS and Ethiopia’s PSNP – had been set up chiefly to address this issue (food access)[[35]](#endnote-35) and both have been at least partially successful. PDS has been found to have a small positive impact on recipients’ caloric intake.[[36]](#endnote-36) The effects estimated are larger in studies conducted after 2009, when PDS was expanded in several Indian states and became better targeted – reducing national grain-diversion rates from 54% in 2003-2005 to 44% in 2014-2015.[[37]](#endnote-37) Preliminary evidence on the impact of the recently-enacted NFSA suggests both a further reduction in PDS diversion rates and significant expansion of coverage, from 15% to 74% of the population.[[38]](#endnote-38) It is thus reasonable to expect that PDS may further boost Indian population’s food access in the near future, even if – given the limit of 5 kg of grain-purchase per person per month – only modestly. One worrisome issue in this otherwise mostly positive trend is the increasing tying of PDS benefits to people’s biometric identification numbers (*aadhaar*), which has exacerbated exclusion rates amongst the most vulnerable.[[39]](#endnote-39) On the other hand, the NFSA has legally turned PDS from a mechanism for welfare provision into a guarantor of people’s justiciable right to food, which has become reflected to some extent in PDS beneficiaries’ perception of the programme.[[40]](#endnote-40)

 Ethiopia’s PSNP has also been found to improve beneficiaries’ food access, by reducing households’ annual number of food-insufficient months by 1.05 (1.53 amongst households receiving also productive services).[[41]](#endnote-41) PSNP’s food allowance (or its cash equivalent) is larger in amount than PDS’s, granting beneficiaries 15 kg of cereals and 4 kg of pulses per person per month and unlike PDS, PSNP is relatively well-targeted, particularly in Ethiopia’s highland areas.[[42]](#endnote-42) However, it presently covers only 10% Ethiopians and even though it has been found to have had significant positive income effects on non-recipients as well, through spill-overs,[[43]](#endnote-43) due to its small coverage compared to PDS it is unlikely to have a larger positive effect on food access nationally.

*Dietary diversity and micronutrient deficiency*

 Nevertheless, India’s high child-undernourishment rates are increasingly seen as a matter of faulty food utilisation rather than deficient food access.[[44]](#endnote-44) One key cause is the population’s generally unbalanced cereal-heavy diet low in micronutrients, as suggested also by the high prevalence of anaemia and Vitamin A deficiency (Table 2). PDS, focused on selling cheap wheat and rice, increased, according to some studies, consumption of the subsidised cereals but had either no effect on dietary diversity[[45]](#endnote-45) (the variety of food groups consumed) or actually reduced the consumption of nutritionally superior coarse cereals.[[46]](#endnote-46) That may be one of the reasons why PDS has failed to lower children’s underweight rates amongst participating households.[[47]](#endnote-47) ICDS and MDMS have been more successful in improving recipient children’s daily nutrient intake and anthropometric outcomes[[48]](#endnote-48) but both programmes have suffered from poor coverage and corruption[[49]](#endnote-49) and their national-level impact has hence been limited.

 Albeit lower than India’s, nutritional deficiencies in Ethiopia are also high. Results vis-à-vis PSNP’s nutritional effects are inconclusive – one study[[50]](#endnote-50) found children in recipient households to have improved height-for-age scores but IFPRI-led impact evaluation discovered no significant effect on children’s anthropometric scores or dietary diversity.[[51]](#endnote-51) However, PSNP transfers of cash as opposed to food *have* been associated with a significantly higher consumption of oils and Vitamin-A-rich foods.[[52]](#endnote-52) There is a danger when transferring cash rather than food of exposing the vulnerable to negative effects of inflation, as experienced by some PSNP cash recipients during the 2008 food-price spikes.[[53]](#endnote-53) Consequently, the majority of PSNP households prefer not to receive only cash.[[54]](#endnote-54) Nonetheless, a combination of food and cash receipts may in view of the evidence be more beneficial to increasing the diversity of food-group and micronutrient intake than solely cereal transfers, as done by PDS.

 India’s higher than Ethiopia’s child undernourishment and micronutrient-deficiency rates could be related to differences in the countries’ staple diets. Whilst both Indian and Ethiopian staples include cereals, legumes, and onions, the staple grain in most parts of Ethiopia – teff – has higher iron content[[55]](#endnote-55) than both wheat and rice, Indian staple grains, although not by as much as thought previously. PSNP’s inclusion of pulses, also rich in iron as well as in protein, likely contributes to a more balanced diet amongst PSNP food recipients as well, however. The need to improve Indian diets has been increasingly acknowledged also by the Indian government, with various policy strategies – ranging from micronutrient-fortification of PDS cereals through diversification of PDS-sold foods to promoting consumption of nutritionally-superior coarse cereals – currently debated.[[56]](#endnote-56)

*Maternal and infant nutrition*

 For children’s as well as adults’ good nutritional outcomes, the most crucial are the first 1000 days of life, from conception through time in the womb to the second birthday.[[57]](#endnote-57) There are two aspects of the countries’ relevant policies worth discussing here. The first relates to pregnancy. Table 2 showed that more than 50% pregnant Indian women are anaemic, as compared to 23% pregnant Ethiopian women. Studies have also reported many pregnant Indian women suffering heavy workloads and reducing food intake in hopes of an easier delivery. All these issues may compromise foetal nourishment.[[58]](#endnote-58) In order to ease the burden of India’s pregnant women, the NFSA decreed that they should receive a stipend of 6,000 IRS. This recommendation was implemented in 2017 under the Pradhan Mantri Matru Vandana Yojana policy; however, it reduced the amount awarded to 5,000 IRS and is only given for the first live-born child, excluding 57% annual births.[[59]](#endnote-59) Even when the money is received, the bulk of it is often used to cover the costs of hospital delivery.[[60]](#endnote-60) In contrast, Ethiopian PSNP provides direct cash or food support (without the need to participate in public works) to women from the fourth month of pregnancy until the child completes the first year of life.[[61]](#endnote-61) Evaluations concluded that PSNP’s pregnancy-support component is relatively well-implemented.[[62]](#endnote-62)

 Despite higher rates of anaemia amongst Indian than Ethiopian pregnant women, the percentage of ‘very small’ Indian babies (18.2%)[[63]](#endnote-63) is only slightly higher than of Ethiopian ones (16%).[[64]](#endnote-64) Nevertheless, this small difference in underweight rates becomes larger as the babies grow (Figure 2). One reason may be the difference in the two countries’ weaning trends. Figure 4 reveals that contrary to the recommendation to start feeding babies (semi)solids after completing six months of age,[[65]](#endnote-65) 52% mothers of 6-8-month-old and almost 30% mothers of 9-11-month-old babies in India feed their children only liquids. The comparative proportions in Ethiopia, although still high, are significantly lower - 39% and 16%.

 In order to improve child-feeding practices – and in response to IFPRI’s finding that PSNP III had no impact on children’s nutritional outcomes - PSNP IV enlarged the programme’s nutritional component, with pregnant and lactating PSNP recipients now expected to attend nutritional classes (e.g. community health talks, cooking demonstrations). For other PSNP beneficiaries, attendance of these classes counts towards their public-work allotment and, in an effort to transform traditional gender roles, male attendance is encouraged.[[66]](#endnote-66) Impact evaluation of a pilot nutritional intervention in Eastern Ethiopia found a significant positive impact on child-feeding practices.[[67]](#endnote-67) India has provided health and nutritional education to pregnant women and mothers of young children through ICDS for decades; however, this programme component has been less utilised than ICDS’s provision of food rations, particularly so in poorer states (e.g. only 13-17% of eligible women received such education in Uttar Pradesh and 16-18% in Rajasthan),[[68]](#endnote-68) and has generally been seen as ineffective.[[69]](#endnote-69)

*Sanitation*

 In addition to unbalanced diets, children’s undernourishment rates across the world have been increasingly linked to sanitation issues.[[70]](#endnote-70) For example, inter-district differences in open-defecation rates in India were found to explain up to 55% variation in their child-undernourishment rates.[[71]](#endnote-71) India has implemented a series of nation-wide programmes to eradicate the practice, the Swachh Bharat (Clean India) mission the most recent one, but they have not been widely successful, managing to reduce open-defecation rates only from 70% to 46% between 1990 and 2015.[[72]](#endnote-72) The reduction in Ethiopia in the same timeframe has been considerably greater, from 90% to 32%.[[73]](#endnote-73) The suspected rationale for Ethiopia’s greater success in this regard has been treatment of the issue as a public-health problem and focusing primarily on the provision of hygiene and sanitation education to people, urging them to build their own toilets. In contrast, successive Indian governments built millions of toilets; however, without sufficient community engagement and education Indians, also for cultural reasons related to the caste system, have been reluctant to use them.[[74]](#endnote-74) The ongoing Swachh Bharat campaign that aims to eradicate open defecation in India by October 2019 – Mahatma Gandhi’s 150th birthday – appears to suffer from similar problems as previous ones, as it has under time pressure resorted to using coercive methods without persuading communities that using toilets was healthier than defecating in the open and may have thus aroused resentment against the externally-imposed toilets.[[75]](#endnote-75)

***Comparing food-availability and food-stability governance***

Turning to a brief comparison of India’s and Ethiopia’s food-availability and food-stability governance, particularly vis-à-vis its effect on individual and household food-security outcomes, both countries’ national food policies had been shaped by their experience of famines. In response to the 1943 Bengali famine, followed by three decades of food shortages, India began pursuing a policy of national grain self-sufficiency.[[76]](#endnote-76) It achieved this goal by mid-1990s, thanks to the widespread adoption of ‘Green-Revolution’ higher-yielding crops, agricultural subsidies (for fertiliser, electricity for irrigation etc.), and PDS’s guarantee of minimum support prices to farmers.[[77]](#endnote-77) Although in theory PDS could have contributed to households’ better food-security outcomes through this procurement arm as well, by boosting small farmers’ incomes, due to high land concentration, unsuccessful land reforms[[78]](#endnote-78), and grain purchases predominantly from large farmers in Punjab and Haryana the programme strengthened Indian rural agricultural elites instead.[[79]](#endnote-79)

The increased food production allowed India to amass large stores of grain as well as become a major international exporter of rice, wheat, and buffalo.[[80]](#endnote-80) However, in line with the ‘India first’ national food policy, these exports have been periodically restricted during international price spikes.[[81]](#endnote-81) Whilst export restrictions may have helped keep domestic grain prices lower in the short run, in addition to impairing food security in net-importing countries by increasing international prices[[82]](#endnote-82) they reduced domestic market integration[[83]](#endnote-83) and may have undermined domestic food production in the longer term.[[84]](#endnote-84) Furthermore, much of the food stored is annually wasted or pilfered – estimated 1.1 million tonnes of cereals between 2010 and 2013[[85]](#endnote-85) – and despite the 2010 Supreme Court decree for excess grain to be given away for free, state governments routinely ignore the request.[[86]](#endnote-86) The storage system has not addressed well food instability either as in years with high food-price inflation it failed to release enough grains to meaningfully reduce prices.[[87]](#endnote-87)

 Ethiopia changed its food-policy strategy in early 2000s, also in an effort to break the cycle of recurrent food crises and reliance on foreign food aid, which constituted for the country a source of ‘national humiliation and shame’.[[88]](#endnote-88) It succeeded in increasing national food production (see Figure 3) over the past two decades thanks to a successful land-certification and tenure reform,[[89]](#endnote-89) growing adoption of modern seed varieties, and farmer-support policies including fertiliser subsidies and agricultural extension services.[[90]](#endnote-90) It has not engaged in intensive international food trade like India thus far, both due to its significantly lower domestic food production relative to domestic demand and its staple crops’ (teff, sorghum…) ‘thin’ international markets, although its exports of white maize to neighbouring countries are rising.[[91]](#endnote-91) Wider adoption of modern seed varieties and of irrigation and fertiliser use will likely help increase food production further.[[92]](#endnote-92) However, in India these trends have had numerous negative effects on agricultural soils, including increase in erosion, waterlogging, and salinity, as well as on groundwater tables, which have become in many places almost depleted.[[93]](#endnote-93) Ethiopia would thus do well to be more environmentally aware in its efforts to augment food production.

There are indications that Ethiopia’s small farmers benefited from the country’s agricultural-intensification policies thus far more than India’s – the tenure reform has been explicitly linked with food-security improvements[[94]](#endnote-94) and much of PSNP food rations are annually purchased from small farmers (and their cooperatives), which in Ethiopia is estimated to be cheaper than buying from large producers.[[95]](#endnote-95) In addition, the operation of Ethiopia’s government agency tasked with food-price stabilisation, unlike India’s, has been deemed quite successful.[[96]](#endnote-96) Nevertheless, unlike India’s food-based PDS, PSNP has from the beginning intended to be a ‘cash-first programme’ and even though it still distributes food as well, its increasing shift towards cash could, without appropriate safeguards, disincentivise Ethiopia’s domestic food production and by extension harm some small farmers’ livelihoods.[[97]](#endnote-97) What indisputably has such a disincentive effect already, acknowledged also by the Development Assistance Committee,[[98]](#endnote-98) is that one-third of current PSNP food transfers is shipped from the United States in kind.[[99]](#endnote-99)

**Cross-country lessons**

The brief comparison of India’s and Ethiopia’s key food-security challenges and their ways of addressing them has highlighted several possible areas for mutual policy lessons. The first one relates to the decision whether to award food-security support in food or cash, with India’s main food-security programme, PDS, still disbursing only food and Ethiopia’s PSNP aiming to switch fully to cash. The two countries’ experience suggests that transferring a mixture of both may be the most effective option as cash provisions might jeopardise households’ food security during food-price hikes[[100]](#endnote-100) but simultaneously improve households’ dietary diversity more than food transfers.[[101]](#endnote-101) That most PSNP beneficiaries prefer to receive a mixture of food and cash[[102]](#endnote-102) supports this mixed-transfer proposition.

 Maintaining the mixed character (food and cash) of PSNP transfers would also align with Ethiopia’s ongoing effort to increase domestic food production, an area where India has thus far outperformed Ethiopia. An integral part of this endeavour should be persuading the US to cease its in-kind development aid to Ethiopia, as it has done vis-à-vis other countries, including India, and for which Ethiopia - as demonstrated in donor negotiations regarding other matters - possesses sufficient political capital.[[103]](#endnote-103) However, in order to maximise the positive effects of national food production on household food security in both countries, PSNP should continue and PDS augment the purchase of state food transfers from small farmers. PDS’s announced move away from selling mostly wheat and rice in favour of millet (a coarse cereal), which requires less irrigation and hence can be grown cheaply also by small farmers, may thus be a step in the right direction for India.[[104]](#endnote-104) Rising white-maize exports by Ethiopian smallholder cooperatives demonstrate that encouraging smallholders’ food production does not necessarily equate to lowering countries’ ability to engage in international food trade either.[[105]](#endnote-105) What could harm this ability for both countries, however, would be continued export-restriction of crops experiencing rising international prices, which not only impairs food security in crop-importing countries but also reduces future trade opportunities and crop production in the restriction-imposing countries.[[106]](#endnote-106)

Another crucial area to improving food-security outcomes in both countries is sanitation. Ethiopia has been praised internationally for rapidly reducing open-defecation rates in recent decades; however, high rates have thus far persisted in lowland regions (Somali, Afar) and many newly-built toilets are unimproved latrines less effective in reducing bacterial infections – and thus improving food security – than improved latrines.[[107]](#endnote-107) New latrines have also sprung up in millions across India in the last couple of years, as part of a campaign to eradicate open defecation by October 2019 that the government has declared a great success. Nevertheless, not only some of the new latrines may not be fully effective at reducing bacterial diseases, many new owners refuse to use them.[[108]](#endnote-108) Coffey and Spears argue that one of the key reasons is India’s caste system, which has traditionally reserved sanitation work for the lowest ‘untouchable’ caste. Many people from other castes are consequently unwilling to clean or empty latrines and pre-emptively do not to use them.[[109]](#endnote-109) Extensive work with Indian (as well as lowland Ethiopian) communities to realise the health dangers of open defecation is seen as the most effective potential remedy but has largely been ignored even by the latest Indian sanitation campaign, which in 2015-2016 allocated to community work only 1% of the total budget.[[110]](#endnote-110)

 Yet another important area for action concerns nutrition of particularly pregnant women and young children. Fewer pregnant women in Ethiopia are anaemic than in India and Ethiopia has also experienced a faster rate of improvement in this regard. The immediate cause of this discrepancy could lie in better nutrition and sanitation of Ethiopian women but these elements would likely improve for pregnant Indian women if they received greater support from the government. Pregnant PSNP beneficiaries in Ethiopia are entitled to unconditional cash/food transfers from their fourth month of pregnancy until the child’s first birthday. Meanwhile, only Indian women pregnant with their first child are entitled to any financial support and the amount has been reported to be mostly spent on payments to doctors/nurses at delivery. Whilst cultural elements may also be at play here,[[111]](#endnote-111) the lack of public financial support leaves millions of poor Indian women with no choice but to work throughout pregnancy and right after delivery, compromising the nutritional status of their new-borns. To help address this issue, the Indian government should at least consider providing the maternity benefit to all pregnant women, as recommended by the NFSA.

 The nutrition of many Indian and Ethiopian infants is further imperilled through inadequate feeding practices. Whilst breastfeeding rates are high in both countries (94%+ breastfeeding rates of 6-8 month-olds), a large proportion of 6-23 month-old children particularly in India receives no (semi)solid foods despite the inability of milk[[112]](#endnote-112) to fully meet their nutritional needs. Once weaned, only 7% Ethiopian and 9% Indian children consume a WHO-defined ‘minimum acceptable diet’.[[113]](#endnote-113) These issues should be addressed through a combination of better nutritional awareness and easier access to food groups other than cereals. Both countries could consider including vegetables and fruits in PDS/PSNP rations and India also pulses, as Ethiopia started in the latest version of PSNP and with which some states in India (e.g. Chhattisgarh) have already had some success.[[114]](#endnote-114) Nutritional education, recently strengthened in Ethiopia’s PSNP, should be improved in India as well, possibly by regulating the employment status of AWC workers currently charged with the task but severely underpaid.[[115]](#endnote-115)

 Several other potential food-security lessons between the two countries are constrained by their distinct political-economic situations, only alluded to thus far. Whilst the depiction of PDS in India’s NFSA as a guarantor of ‘rights’ rather than handouts has emboldened some Indians to appeal when denied PDS coverage or service,[[116]](#endnote-116) Ethiopia in 2013 cracked down on the use of the word ‘rights’ by NGOs.[[117]](#endnote-117) It would thus be unrealistic to recommend that Ethiopia adopts rights-based language regarding food security, however beneficial that could be. Similarly, PSNP’s success in targeting and relative lack of corruption (as well as Ethiopia’s successful prevention of famine following the 2015-2016 drought) have been attributed to the strong pro-food-security will of the EPRDF-led authoritarian Ethiopian government.[[118]](#endnote-118) Even if India’s national government matched such will, however, India’s (more) democratic governance process is by default more protracted and more open to transformation by other national actors than Ethiopia’s.

Finally, because Ethiopia, unlike India, obtains most funds for its food-security programmes from foreign development agencies and its national income is significantly lower than India’s, recommending that Ethiopia significantly expands PSNP’s coverage as India had recently done with PDS may not be realistic either (at least presently), even if it could substantially help further reduce Ethiopia’s food insecurity. Thanks to PSNP’s largely foreign funding, Ethiopia has been additionally obliged to allow foreign donors close oversight of and feedback on PSNP’s functioning. Nonetheless, both Ethiopian and international contacts interviewed for this article opined that the joint government-donor discussions of PSNP and inbuilt impact evaluations of its different initiatives were actually beneficial, ensuring that the programme learned from its mistakes and continuously improved.[[119]](#endnote-119) Good-quality evaluations of India’s key food-security programmes are abundant as well (albeit less systematic than Ethiopia’s) but India’s food-security governance would undoubtedly improve if the link between their findings and the policies enacted were also strengthened.

**Conclusion**

Inspired by India’s and Ethiopia’s similar food-security issues along with the reality that despite significantly higher per-capita incomes India has performed worse in some food-security measures (e.g. child underweight and wasting rates) than Ethiopia, this article has compared the two countries’ approaches to food-security governance and identified several key areas for potential cross-country learning, including dietary diversity, sanitation, and maternal and infant nutrition, as well as food production and programme’s external oversight.[[120]](#endnote-120) Whilst naturally most applicable to the Indian and Ethiopian contexts, these findings are useful also beyond as many countries in the Global South continue to struggle with similar food-security challenges.

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**Table 1. Basic economic and social indicators in 2016**



Source: WDI, 2018

**Table 2. Key food-utilisation indicators in 2015/16**



Source: FAOSTAT

**Figure 1. Comparison of undernourishment prevalence in Ethiopia and India**



Source: FAOSTAT

**Figure 2. Comparison of children’s undernourishment rates in Ethiopia and India**



Source: FAOSTAT

**Figure 3. Comparison of Ethiopia’s and India’s food-availability and food-stability indicators**



Source: FAOSTAT

**Figure 4. Comparison of child-weaning trends in Ethiopia and India**



Source: http://rchiips.org/NFHS/NFHS-4Reports/India.pdf, https://dhsprogram.com/pubs/pdf/FR328/FR328.

1. **Notes**

 http://rchiips.org/nfhs/factsheet\_NFHS-4.shtml [↑](#endnote-ref-1)
2. https://dhsprogram.com/pubs/pdf/FR328/FR328.pdf [↑](#endnote-ref-2)
3. Ramalingaswami et al., “Malnutrition: A South Asian Enigma.” The term is disputed as discussed later in the article. [↑](#endnote-ref-3)
4. http://www.fao.org/docrep/005/y4671e/y4671e06.htm [↑](#endnote-ref-4)
5. WFP, *Food Security Assessment Handbook*, 23. [↑](#endnote-ref-5)
6. Riely et al., *Food Security Indicators*. [↑](#endnote-ref-6)
7. WFP, *Food Security Assessment Handbook*, 23. [↑](#endnote-ref-7)
8. Petrikova, *Global Food Security*, 7-10. [↑](#endnote-ref-8)
9. http://www.ifs.du.edu/ifs/frm\_CountryProfile.aspx?Country=ET [↑](#endnote-ref-9)
10. Feyissa, “Aid Negotiation”, 790. [↑](#endnote-ref-10)
11. http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/#.WYLMkceGPDc [↑](#endnote-ref-11)
12. E.g. Svedberg, *Poverty and Undernutrition*. [↑](#endnote-ref-12)
13. http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/#.WYLMkceGPDc [↑](#endnote-ref-13)
14. Usually caused by iron-poor diet and linked to higher morbidity and mortality. [↑](#endnote-ref-14)
15. E.g. Spears et al., “Open Defecation.” [↑](#endnote-ref-15)
16. http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/#.WYLMkceGPDc [↑](#endnote-ref-16)
17. Simultaneously, even dramatic reductions in national or regional food availability do not have to trigger famines (Ravallion). Devereux demonstrates how drought-driven reductions in food stocks in Ethiopia led to famines in 1984 and 2001 but not in 2015-16, when the government’s timely intervention (along with PSNP infrastructure in place) helped avoid famine. [↑](#endnote-ref-17)
18. Ramalingaswami et al., “Malnutrition: A South Asian Enigma.” [↑](#endnote-ref-18)
19. WHO, “Appropriate Body Mass Index for Asian Populations.” See also Yajnik, “Neonatal Anthropometry” and Hruschka and Headly, “Universal Anthropometric Standards Bias.” [↑](#endnote-ref-19)
20. Nutrition Foundation of India, “Growth Performance of Affluent Indian Children;” Bhandari et al., “Growth Performance of Affluent Indian children.” Nubé showed black children to suffer from significantly higher undernourishment rates than Indian children in South Africa. [↑](#endnote-ref-20)
21. Heady et al., “The Other Asian Enigma.” [↑](#endnote-ref-21)
22. Mooij, “Food Policy and Politics.” [↑](#endnote-ref-22)
23. In order to prove one’s status as BPL or AAY, Indians need to obtain a relevant PDS ration card. [↑](#endnote-ref-23)
24. http://dfpd.nic.in/ [↑](#endnote-ref-24)
25. http://indiacode.nic.in/acts-in-pdf/202013.pdf [↑](#endnote-ref-25)
26. Puri, “NFSA: Early Experiences,” 10. [↑](#endnote-ref-26)
27. Lokshin et al., “Improving Child Nutrition?” [↑](#endnote-ref-27)
28. http://dfpd.nic.in/nfsa-act.htm [↑](#endnote-ref-28)
29. Singh et al., “School Meals”. [↑](#endnote-ref-29)
30. http://dfpd.nic.in/nfsa-act.htm [↑](#endnote-ref-30)
31. Berhane et al., “Ethiopia’s Food Security Program.” [↑](#endnote-ref-31)
32. Ministry of Agriculture, *Productive Safety Net Programme*. All regions except for Benishangul-Gumuz and Gambela, where the government operates separate food-security programmes, are covered. [↑](#endnote-ref-32)
33. Ministry of Agriculture, *Productive Safety Net Programme*, 21. [↑](#endnote-ref-33)
34. Zenebe et al., “School Feeding Program”. [↑](#endnote-ref-34)
35. Mooij, “Food Policy and Politics;” Berhane et al., “Ethiopia’s Food Security Program.” [↑](#endnote-ref-35)
36. Narayanan and Gerber. “Social Safety Nets”, 70. [↑](#endnote-ref-36)
37. Khera, “Diversion of Grain,” 108-9. [↑](#endnote-ref-37)
38. Puri, “NFSA: Early Experiences.” [↑](#endnote-ref-38)
39. E.g. Drèze et al., “Aadhaar and Food Security.” [↑](#endnote-ref-39)
40. Pillay, “Economic and Social-Rights Adjudication.” [↑](#endnote-ref-40)
41. Berhane et al., “Impact of Ethiopia’s Productive Safety Nets.” [↑](#endnote-ref-41)
42. Berhane et al., “Ethiopia’s Food Security Program.” [↑](#endnote-ref-42)
43. Filipski et al., “General Equilibrium Impact Assessment.” [↑](#endnote-ref-43)
44. Desai and Vanneman, “Enhancing Nutrition Security.” [↑](#endnote-ref-44)
45. Ibid. [↑](#endnote-ref-45)
46. Khera, “India’s Public Distribution System.” [↑](#endnote-ref-46)
47. Desai and Vanneman, “Enhancing Nutrition Security.” [↑](#endnote-ref-47)
48. Ibid.; Afridi, “Child Welfare Programs.” [↑](#endnote-ref-48)
49. Afoweso and Rammohan, “Integrated Child Development Services;” Sharma, “Mid-Day Meal Scheme.” [↑](#endnote-ref-49)
50. Porter and Goyal, “Social Protection for All Ages?” [↑](#endnote-ref-50)
51. Berhane et al., “PSNP in Ethiopia.” [↑](#endnote-ref-51)
52. Baye et al., “Effects of conditional food and cash transfers.” Also higher, though not significantly, consumption of dairy, legumes, and other vegetables. [↑](#endnote-ref-52)
53. Devereux, “Social Protection.” [↑](#endnote-ref-53)
54. Baye et al., “Effects of conditional food and cash transfers.” [↑](#endnote-ref-54)
55. Baye, “Teff,” 4-5. A key factor in anaemia is iron deficiency. [↑](#endnote-ref-55)
56. Pingali et al., “From Food to Nutrition Security.” [↑](#endnote-ref-56)
57. https://www.unicef.org/southafrica/SAF\_brief\_1000days.pdf [↑](#endnote-ref-57)
58. Nubé, “Asian Enigma,” 513. [↑](#endnote-ref-58)
59. https://thewire.in/government/2-6-crore-live-births-a-year-and-modis-maternity-scheme-reached-less-than-a-lakh-women-in-2017 [↑](#endnote-ref-59)
60. Sinha et al., “Realising Universal Maternity Benefits.” [↑](#endnote-ref-60)
61. Ministry of Agriculture, *Productive Safety Net Programme*. [↑](#endnote-ref-61)
62. http://siteresources.worldbank.org/SAFETYNETSANDTRANSFERS/Resources/EthiopiaPSNPLessonsLearnedLite.pdf [↑](#endnote-ref-62)
63. In India, ‘very small’ babies refer to those weighing below 2.5kgs, in Ethiopia to subjectively ‘very small’ babies as only 14% babies were weighed after birth. [↑](#endnote-ref-63)
64. http://rchiips.org/NFHS/NFHS-4Reports/India.pdf; https://dhsprogram.com/pubs/pdf/FR328/FR328.pdf [↑](#endnote-ref-64)
65. <https://dhsprogram.com/pubs/pdf/FR328/FR328.pdf>, 192. [↑](#endnote-ref-65)
66. https://eeas.europa.eu/delegations/un-new-york/42354/pnsp-4-overview-nutrition-sensitive-interventions\_en [↑](#endnote-ref-66)
67. Kang et al., “Effects of nutrition promotion.” [↑](#endnote-ref-67)
68. http://rchiips.org/NFHS/NFHS-4Reports/India.pdf [↑](#endnote-ref-68)
69. Pingali et al., “From Food to Nutrition Security,” 79. [↑](#endnote-ref-69)
70. Spears, “International Variation in Child Height.” [↑](#endnote-ref-70)
71. Spears et al., “Open Defecation.” [↑](#endnote-ref-71)
72. http://www.downtoearth.org.in/news/ethiopia-pushes-hygiene-57463 [↑](#endnote-ref-72)
73. Ibid. [↑](#endnote-ref-73)
74. Coffey and Spears, *Where India Goes.* [↑](#endnote-ref-74)
75. http://www.newindianexpress.com/opinions/editorials/2018/may/05/a-blot-on-swachh-bharat-1810394.html [↑](#endnote-ref-75)
76. http://oii.igidr.ac.in:8080/jspui/bitstream/2275/179/1/PP-056.pdf [↑](#endnote-ref-76)
77. Frankel, *India’s Green Revolution.*  [↑](#endnote-ref-77)
78. Jha, “Land Reforms in India.” [↑](#endnote-ref-78)
79. Pingali et al., “From Food to Nutrition Security,” 77. [↑](#endnote-ref-79)
80. https://www.fas.usda.gov/data/india-s-agricultural-exports-climb-record-high [↑](#endnote-ref-80)
81. Baylis et al., “Effects of Export Restrictions.” [↑](#endnote-ref-81)
82. https://www.ictsd.org/sites/default/files/research/Agricultural%20Export%20Restrictions,%20Food%20Security%20and%20the%20WTO.pdf [↑](#endnote-ref-82)
83. Baylis et al., “Effects of Export Restrictions.” [↑](#endnote-ref-83)
84. Clarkson and Kularni, “Effects of India’s Trade Policy”; Fellmann et al., “Temporary Export Restrictions.” [↑](#endnote-ref-84)
85. https://www.hindustantimes.com/delhi-news/rice-wheat-worth-rs-2-050-crore-wasted-in-3-yrs-in-govt-godowns/story-knsmp10kbAGSnWfpXUI7yI.html [↑](#endnote-ref-85)
86. http://www.businessinsider.com/india-malnutrition-a-story-of-rotting-crops-and-rotten-bureaucracy-2012-7?IR=T [↑](#endnote-ref-86)
87. Basu, “India’s Foodgrain Policy.” Baylis et al. found export restrictions to further exacerbate food instability. [↑](#endnote-ref-87)
88. Lavers, “Social Protection”, 6. [↑](#endnote-ref-88)
89. https://brage.bibsys.no/xmlui/bitstream/handle/11250/2478729/CLTS\_WP2\_2013.pdf?sequence=1 [↑](#endnote-ref-89)
90. Spielman et al., “Cereal Intensification in Ethiopia.” [↑](#endnote-ref-90)
91. http://www.fao.org/fileadmin/user\_upload/ivc/Ethiopia\_P4P\_case\_study.pdf [↑](#endnote-ref-91)
92. http://www.danangtimes.vn/Portals/0/Docs/210145221-Brief\_KOtsuka%20\_rev\_.pdf [↑](#endnote-ref-92)
93. Bhattacharya et al., “Soil Degradation in India.” [↑](#endnote-ref-93)
94. https://brage.bibsys.no/xmlui/bitstream/handle/11250/2478729/CLTS\_WP2\_2013.pdf?sequence=1 [↑](#endnote-ref-94)
95. http://www.fao.org/fileadmin/user\_upload/ivc/Ethiopia\_P4P\_case\_study.pdf, vii. [↑](#endnote-ref-95)
96. https://www.iatp.org/files/2012\_07\_13\_IATP\_GrainReservesReader.pdf#page=51 [↑](#endnote-ref-96)
97. Ibid. [↑](#endnote-ref-97)
98. Interview in Addis Ababa. [↑](#endnote-ref-98)
99. https://www.usaid.gov/ethiopia/food-assistance. Bulk of US ‘development aid’ to Ethiopia is provided in (American) food. [↑](#endnote-ref-99)
100. Devereux, “Social Protection.” [↑](#endnote-ref-100)
101. Baye et al., “Effects of conditional food and cash transfers.” [↑](#endnote-ref-101)
102. Ibid. [↑](#endnote-ref-102)
103. Feyissa, “Aid Negotiation.” [↑](#endnote-ref-103)
104. https://timesofindia.indiatimes.com/business/india-business/govt-to-distribute-millets-like-bajra-via-pds/articleshow/63786531.cms; millet is also nutritionally superior to wheat and rice. [↑](#endnote-ref-104)
105. http://www.fao.org/fileadmin/user\_upload/ivc/Ethiopia\_P4P\_case\_study.pdf [↑](#endnote-ref-105)
106. Woldie and Siddig, “Impact of Banning Exports.” [↑](#endnote-ref-106)
107. https://www.downtoearth.org.in/news/ethiopia-pushes-hygiene-57463 [↑](#endnote-ref-107)
108. https://blogs.timesofindia.indiatimes.com/toi-edit-page/toilets-are-being-constructed-at-a-remarkable-pace-but-its-not-a-prem-katha-yet-for-all-sections-of-the-population/ [↑](#endnote-ref-108)
109. Coffey and Spears, *Where India Goes.* [↑](#endnote-ref-109)
110. Ibid., 221. [↑](#endnote-ref-110)
111. Ramalingaswami et al. argue that pregnant women in South Asia are less cared for by their families than in sub-Saharan Africa. [↑](#endnote-ref-111)
112. Possibly supplemented with water, juice, and/or broth. [↑](#endnote-ref-112)
113. http://rchiips.org/NFHS/NFHS-4Reports/India.pdf; https://dhsprogram.com/pubs/pdf/FR328/FR328.pdf [↑](#endnote-ref-113)
114. Pingali et al., “From Food to Nutrition Security,” 80. [↑](#endnote-ref-114)
115. E.g. https://thewire.in/government/lack-basic-facilities-underpaid-overworked-workers-plague-rajasthans-anganwadis [↑](#endnote-ref-115)
116. Interview in Delhi. [↑](#endnote-ref-116)
117. Berhane et al., “Ethiopia’s Food Security Program.” [↑](#endnote-ref-117)
118. Lavers, “Social Protection.” [↑](#endnote-ref-118)
119. Interviews in Addis Ababa. See also Berhane et al. *PSNP in Ethiopia*, 62. [↑](#endnote-ref-119)
120. Important caveat: many of the two countries’ food-security programmes and policies have been recently modified and not yet impact-evaluated and thus they are compared on the basis of their potential rather than established effects. [↑](#endnote-ref-120)