

# **EVANS SCHOOL OF PUBLIC POLICY & GOVERNANCE**

## UNIVERSITY of WASHINGTON

### Evans School Policy Analysis and Research (EPAR)

Aid and Self-Sufficiency: Case Study - India

Trygve Madsen, Caitlin O'Brien-Carelli, Beijie Wang, Emily Morton, Annie Rose Favreau, Pierre Biscaye

Travis Reynolds & C. Leigh Anderson

November 30, 2017

EPAR Technical Report #349C Professor C. Leigh Anderson, Principal Investigator Professor Travis Reynolds, co-Principal Investigator

#### 1. Economic Context in India

India is a lower middle-income country<sup>1</sup> with a population of 1.3 billion, a GNI per capita of \$1,680, and the world's seventh largest economy (World Bank, 2016a). It is also the world's largest democracy (BBC, 2017a), with a multiparty parliamentary system and a robust free press (Pylee, 2003). Since achieving independence from Britain in 1947, India has grown from a low-income South Asian country to the "fastest growing economy in the world" (World Bank, 2017a, n.p.) with a 2016 GDP growth rate of 7.1% (World Bank, 2016a). Life expectancy has increased, from 41 years in 1960 to 68 years in 2015 (World Bank, 2016a), agricultural output has expanded (World Bank, 2016b), and poverty has fallen, from 53.9% of the population living below the \$1.90 a day poverty line in 1983 to 21.2% in 2011 (World Bank 2016a).

Other indicators of human development also show positive trends: the literacy ratio has increased, from 40.8% in 1981 to 72.2% in 2016, and the maternal mortality ratio has fallen, from 556 deaths per 100,000 live births in 1990 to 174 in 2015 (World Bank 2016a). Meanwhile India's middle class has doubled in size, from approximately 300 million people in 2004 to 600 million in 2012, and the number of households with more than \$10,000 in disposable income has grown, from 2.5 million in 1990 to 50 million in 2015 (Breene, 2016).

Major economic reforms beginning in July of 1991 are credited with initiating a sustained period of economic growth (*New York Times*, 2017; Panagariya, 2001). Additional macroeconomic and regulatory reforms initiated in 2014 are thought to have also contributed to high GDP growth rates (OECD, 2017a), which are projected to remain over seven percent through 2019 (World Bank, 2016c). However, India's economy faces several growing challenges, including projections that it will have the world's largest population by 2028 (BBC, 2017a), mass urbanization, high poverty ratios in some regions, gender disparities, and a young, expanding workforce (World Bank, 2017a; World Bank, 2016b).

### 2. Performance along Measures of Self-Sufficiency in India

GNI per capita in India has maintained a steady, upward trend since the late 1970s, from only \$200 USD per capita in 1978 to \$1,600 in 2015 (*Figure 1*). Economic growth accelerated in 2003, driven by growth in the service sector, including the information technology industry (Doshi, 2017; Bosworth, Collins, & Virmani, 2006). Beginning with the 1991 economic reforms, average GDP growth rates doubled, from 2.8% in the 1990s to 5.8% in the 2000s (Subramanian, 2016), and GNI per capita increased three-fold from 1990 to 2010.

<sup>&</sup>lt;sup>1</sup> The World Bank classifies countries with a GNI per capita between \$1,006 and \$3,955 as lower middle-income (World Bank, 2017d).

EPAR uses an innovative student-faculty team model to provide rigorous, applied research and analysis to international development stakeholders. Established in 2008, the EPAR model has since been emulated by other UW schools and programs to further enrich the international development community and enhance student learning.

Please direct comments or questions about this research to Principal Investigators Leigh Anderson and Travis Reynolds at eparinfo@uw.edu.

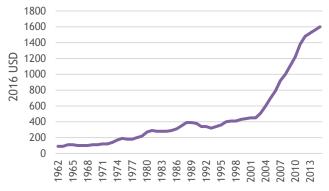
Net ODA per capita<sup>2</sup> in India has consistently been low, ranging from only \$0.70 per capita in 2004 to highs of \$3.10 in both 1980 and 1991 (*Figure 2*). Net ODA per capita is low in part due to India's very large population, which has tripled since 1960, when it was 449 million. India received over \$3.1 billion in net ODA in 2015 for a population of 1.3 billion.

Net ODA as a percentage of GNI has also remained low, ranging from 2.8% in 1967 to less than 1.0% since 1992 (Figure 3). Strong increases in GNI (Figure 1), rather than declining ODA, have driven the decrease in the ODA to GNI ratio. In 2015, Britain ended foreign aid to India, citing positive trends in growth and development. Following Britain's decision, some members of the donor community openly questioned the justification for continued aid to a seemingly flourishing economy (Mandhana, 2012).

However, a number of international organizations argue that ODA should continue in order to address disparities in human development indicators, including 1.3 million deaths annually in children under five (Rowlatt, 2015). India today is wealthier than Bangladesh and Nepal, but over the past two decades, these poorer countries have surpassed India in terms of life expectancy, infant mortality, and female literacy (Desai & Ledlie, 2012).

India's transition toward self-sufficiency has been slower in certain sectors or programmatic areas, such as maternal and reproductive health, and still attracts significant aid flows to these areas. For example, India is considered a USAID Family Planning program "priority" country, as it has not been able to achieve key success indicators for graduation from assistance (USAID, 2017). While India's Total Fertility Rate qualifies it for graduation, its Modern Contraception Prevalence rate is below the threshold, which requires that of 55% of married or in-union women aged 15 to 49 use any modern method of contraception (*ibid.*).

Figure 1. GNI per capita in 2016 USD, India, 1962-2015



Source: World Bank Open Data, 2016

Figure 2. Net ODA per capita in 2016 USD, India, 1962-2015

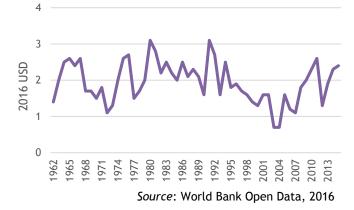


Figure 3. Net ODA as a percentage of GNI, India, 1962-2015



Source: World Bank Open Data, 2016

<sup>&</sup>lt;sup>2</sup>Net ODA is distinct from gross ODA insofar as it nets out loan repayments and loan forgiveness. Consequently, net ODA can be negative (OECD, 2017b).

Though the relative importance of ODA to India's public sector has decreased as the country's GNI has increased, aid flows have continued in order to support government and donor goals for improvement in social indices and human development outcomes. Mandhana (2012) notes that even while India's Finance Minister dismissed the importance of the loss of British aid and that the Foreign Minister emphasized trade replacing aid in the future, the donor community continues to give. Aid inflows decreased when India engaged in an internationally-condemned nuclear test in 1998 (Morrow & Carierre, 1999), which was followed by a military stand-off with Pakistan from 2001 to 2002 (Ganguly & Kraig, 2005). But net ODA per capita rebounded during and after the 2008 financial crisis and has recently hovered near pre-1991 levels.

India used to be the largest beneficiary of aid worldwide, receiving roughly \$55 billion USD between 1951 and 1992 (Mandhana, 2012), and net ODA has increased on average since the 1970s (*Figure 4*). As shown in *Figure 5*, however, net ODA as a percentage of central government expenditures has fallen since the 1970s, from a high of 16.1% in 1975 to less than one percent in 2013.

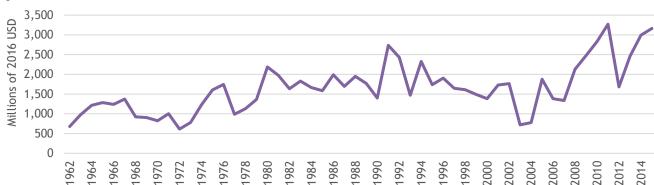


Figure 4. Net ODA in 2016 USD, India, 1962-2015

Source: World Bank Open Data, 2016

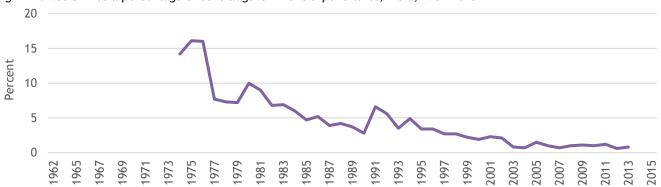


Figure 5. Net ODA as a percentage of central government expenditures, India, 1962-2015

Source: World Bank Open Data, 2016

In 2014, following two decades of strong economic growth, India officially graduated from IDA eligibility—making it no longer able to receive the highly concessional aid reserved for the poorest countries. This was largely due to India's GNI per capita growth and creditworthiness—the two primary criteria for determining graduation (World Bank, 2016d). India is receiving transitional support through 2017 (*ibid.*) as it works to replace IDA with other internal revenue sources, together with increased borrowing relative to concessional aid (*Figure 6*) and a greater reliance on borrowing and technical assistance through the IBRD (*Figure 7*).

Figure 6. Recent borrowing metrics in current USD, India, 2007-2015

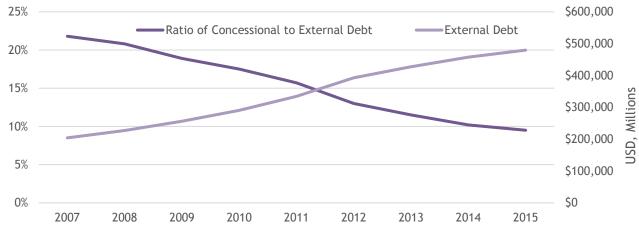
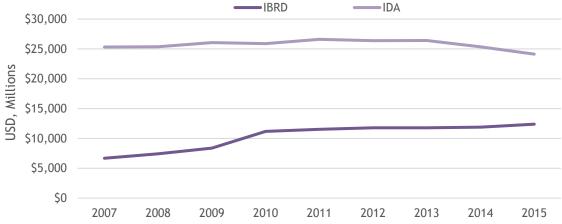


Figure 7. Long-term debt outstanding and disbursed in current USD, India, 2007-2015



Source: World Bank Open Data, 2016

In addition to domestic economic growth, India has benefited from access to alternative sources of finance. *Figure 8* provides an overview of total development flows into India from 1960 to 2014, separated out by ODA grants, ODA loans, and OOFs<sup>3</sup>. ODA has remained on a steady, upward trend since 1960, with increasing percentages of development flows from ODA loans in recent years. In 2015, 18.0% of development flows were from ODA grants, 56.0% were from ODA loans, and 26.0% were from OOFs. The negative net flows for OOFs around 2003 appear to be from a combination of a 6.5% increase in external debt (PTI, 2004) and high interest on external debt in that year relative to previous years (Index Mundi, 2015).

-

<sup>&</sup>lt;sup>3</sup> OOFs include: "Grants to developing countries for representational or essentially commercial purposes; official bilateral transactions intended to promote development, but having a grant element of less than 25%; and, official bilateral transactions, whatever their grant element, that are primarily export-facilitating in purpose" (OECD, 2017c). In summary, ODA includes IDA-type loans and grants but not IBRD-type loans with a smaller grant or concessional element (which are classed as OOFs).

\$10,000 \$8,000 Millions of 2016 USD ODA Grants ■ 00F ODA Loans \$6,000 \$4,000 \$2,000 \$0 -\$2,000 -\$4,000 1988 1990 1992 1994 9661

Figure 8. Net flows of development assistance to India by type in millions of 2016 USD, 1960-2014

Tax revenues have also boomed in India, especially since the early 1990s. India collected \$204 billion in tax revenue in 2013 (*Figure 9*), or 11.0% of GDP, an all-time high and a six-fold increase from \$31 billion in 1990. Tax revenues increased significantly beginning in the early 2000s, corresponding to an upward trend in GNI per capita (*Figure 1*) and expanding GDP growth during that time.

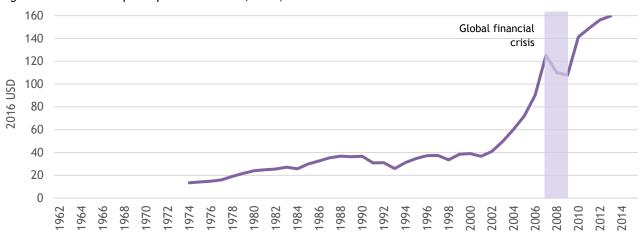


Figure 9. Tax revenue per capita in 2016 USD, India, 1962-2015

Source: World Bank Open Data, 2016

Measures of institutional capacity in India have remained steady since 2005 (*Figure 10*), with a slight drop in the Country Policy and Institutional Assessment (CPIA) rating in 2008. This change is due to a relatively large decrease in the economic management rating, which has higher scores on average as compared to other ratings, but decreases were seen generally across all categories of ranking. Since then, CPIA scores have stayed relatively stable, except for the structural polcies rating, which saw an addition decline post-2011. India's average CPIA score has been consistently higher than the average CPIA score of IBRD countries with CPIA rankings<sup>4</sup> since the beginning of measurement in 2005 (World Bank, 2017d).

<sup>&</sup>lt;sup>4</sup> IBRD countries reporting CPIA data include Angola, Armenia, Bolivia, Bosnia & Herzegovina, Georgia, India, Sri Lanka, and Vietnam

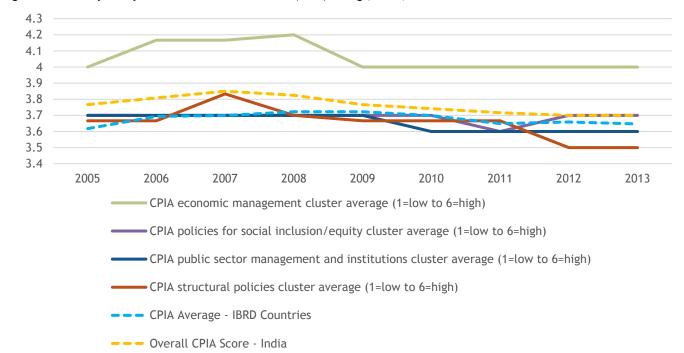


Figure 10. Country Policy and Institutional Assesment (CPIA) ratings, India, 2005-2013

#### 3. Drivers and Barriers to Self-Sufficiency in India

Two factors are often referenced in the literature documenting India's economic growth: a period of agricultural intensification and technological improvements (the "Green Revolution") that spiked farm productivity across the nation (Pingali, 2012; Zeigler & Mohanty, 2010; Evenson & Gollin, 2003), and policy changes in favor of economic liberalization undertaken by the government in 1991 (Topalova & Khandelwal, 2011; Panagariya, 2004; Panagariya, 2001)—though Rodrik & Subramanian (2004) argue that a pro-business policy regime in the 1980s may also be an underlying driver of India's growth.

The push for economic liberalization that began in 1991 was spurred by a balance of payments crisis, prompting the government to take on a large IMF loan that was conditional upon major economic reforms (Panagariya, 2001). These reforms centered on privatizing and deregulating industry—"freeing the domestic economy from state control" (Panagariya, 2001, p. 1), and on opening India—which, at that time, had some of Asia's most restrictive policies governing imports, exports, and tariffs—to a greater degree of international economic engagement (Topalova & Khandelwal, 2011). Another central piece of the reform package involved eliminating restrictions on foreign direct investment in industry (Panagariya, 2004), intended to further stimulate the private sector. Panagariya (2001) argues that the conditions associated with IMF aid led to economic reforms that helped spur India's economic growth in the 1990s (*Figure 11*).

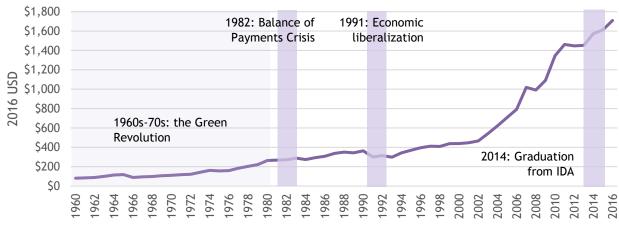


Figure 11. GNI per capita in 2016 USD and significant events, India, 1960-2016

There have been a number of economic, environmental, and political shocks that might have derailed India's transition to economic self-sufficiency. In addition to the liberalization-inducing balance of payments crisis in 1991, the country also experienced a balance of payments crisis in 1982 during an anti-democratic period known as "The Emergency" that ended with the collapse of the ruling government (BBC, 2015). India has also suffered several particularly damaging natural disasters, including two droughts in West Bengal from 1979 to 1980 and another in 1987 (Weisman, 1987), a 1999 cyclone in Orissa (now Odisha) state (Kalsi, 2006), and a 2001 earthquake in Gujarat (Buchanan & Solanki, 2011). Finally, India experienced conflicts with Pakistan in 1965, 1971, and 1999, and with China in 1962 (BBC News, 2017b). In many instances these shocks coincide with peaks in net ODA inflows (*Figures 2 and 3*), though we found no studies directly linking support from aid in helping India to recover from these shocks to India's transition toward self-sufficiency.

#### References

BBC News (2015, June 25). India media: Papers remember 1975 emergency. *BBC*. Retrieved 23 July 2017 from http://www.bbc.com/news/world-asia-india-33269607

BBC News (2017a, July 25). India country profile. *BBC*. Retrieved 27 July 2017 from http://www.bbc.com/news/world-south-asia-12557384

BBC News (2017b, July 2). India profile - timeline. *BBC*. Retrieved 23 July 2017 from http://www.bbc.com/news/world-south-asia-12641776

Breene, K. (2016, November 7). 6 surprising facts about India's exploding middle class. Retrieved 27 July 2017 from https://www.weforum.org/agenda/2016/11/6-surprising-facts-about-india-s-exploding-middle-class/

Buchanan, E., & Solanki, B. (2011, January 30). Gujarat's astonishing rise from rubble of 2001 quake. *BBC*. Retrieved 23 July 2017 from http://www.bbc.com/news/world-south-asia-12309791

Desai, R. M. & Ledlie, N. (2012). Why the end of British aid in India won't matter. Retrieved from https://www.brookings.edu/opinions/why-the-end-of-british-aid-to-india-wont-matter/

Doshi, V. (2017, June 24). The high-tech jobs that created India's gilded generation are disappearing. Retrieved 27 July 2017 from https://www.washingtonpost.com/world/asia\_pacific/the-high-tech-jobs-that-created-indias-gilded-generation-are-disappearing/2017/06/22/815f1d0e-5588-11e7-9e18-968f6ad1e1d3\_story.html?utm\_term=.243781ccf02e

- Evenson, R. E., & Gollin, D. (2003). Assessing the impact of the Green Revolution, 1960 to 2000. *Science*, 300(5620), 758-762.
- Ganguly, S., & Kraig, M. R. (2005). The 2001-2002 Indo-Pakistani crisis: exposing the limits of coercive diplomacy. *Security Studies*, 14(2), 290-324.
- The Hindu (1991, July 25). Sparing the poor. *The Hindu*. Retrieved 27 July 2017 from http://www.thehindu.com/opinion/editorial/Sparing-the-poor/article14504906.ece
- Index Mundi. (2015). India Interest payments on external debt. Retrieved 31 July 2017 from https://www.indexmundi.com/facts/india/interest-payments-on-external-debt
- International monetary Fund (IMF) (n.d.). At a Glance India and the IMF. Retrieved 27 July 2017 from https://www.imf.org/external/country/ind/rr/glance.htm
- Kalsi, S. R. (2006). Orissa super cyclone-A synopsis. Mausam, 57(1), 1.
- Ladejinsky, W. (1973). How green is the Indian Green Revolution? Economic and Political Weekly, A133-A144.
- Mandhana, N. (2012, November 15). A global shift in foreign aid, starting in India. *The New York Times*.

  Retrieved 31 July 2017 from https://india.blogs.nytimes.com/2012/11/15/a-global-shift-in-foreign-aid-starting-in-india/
- Morrow, D. & Carriere, M. (1999). The economic impacts of the 1998 sanctions on India and Pakistan. *The Nonproliferation Review*, 6(4), 1-16.
- Organization for Economic Cooperation and Development (OECD) (2017a). *OECD Economic Surveys: India*(Rep.). Retrieved 27 July 2017 from http://www.oecd.org/eco/surveys/INDIA-2017-OECD-economic-survey-overview.pdf
- Organization for Economic Cooperation and Development (OECD) (2017b). Frequently asked questions.

  Retrieved 27 July 2017 from http://www.oecd.org/dac/stats/faq.htm
- Organization for Economic Cooperation and Development (OECD) (2017c). Other official flows (OOF) (indicator). doi: 10.1787/6afef3df-en
- The New York Times (2017). India. *The New York Times*. Retrieved 27 July 2017 from https://www.nytimes.com/topic/destination/india
- Panagariya, A. (2001). *India's economic reforms: What has been accomplished? What remains to be done?* (EDRC Policy Brief No. 2). Retrieved 23 July 2017 from http://www.columbia.edu/~ap2231/Policy%20Papers/OPB2.pdf
- Panagariya, A. (2004). *India in the 1980s and 1990s: A triumph of reforms*. (IMF Working Paper WP/04/43). Retrieved 23 July 2017 from https://www.imf.org/external/pubs/ft/wp/2004/wp0443.pdf
- Pingali, P. L. (2012). Green Revolution: Impacts, limits, and the path ahead. *Proceedings of the National Academy of Sciences*, 109(31), 12302-12308.
- Press Trust of India (2004, March 31). India's external debt up 6.5% at \$112 bn in 2003. *The Economic Times*. Retrieved 31 July 2017 from http://economictimes.indiatimes.com/indias-external-debt-up-6-5-at-112-bn-in-2003/articleshow/592708.cms
- Pylee, M. V. (2003). Constitutional government in India. New Delhi: S. Chand.
- Rodrik, D., & Subramanian, A. (2004). From" Hindu growth" to productivity surge: the mystery of the Indian growth transition (NBER Working Paper No. w10376). Available from National Bureau of Economic Research http://www.nber.org/papers/w10376.
- Rowlatt, J. (2015, October 07). UK ending aid to India: Where does the money go? Retrieved 27 July 2017 from http://www.bbc.com/news/world-asia-india-34398449
- Sen, A. (2016, August 21). Economic Reforms in India since 1991. Retrieved 27 July 2017 from http://www.importantindia.com/1859/economic-reforms-in-india-since-1991/
- Subramanian, A. (2016, April 19). India: Growth in the 2000s Key facts. Retrieved 27 July 2017 from https://piie.com/commentary/op-eds/india-growth-2000s-key-facts
- Topalova, P. & Khandelwal, A. (2011). Trade liberalization and firm productivity: The case of India. *Review of Economics and Statistics*, 93(3), 995-1009.

- Unger, C. R. (2015). India's Green Revolution. Humboldt-Universität zu Berlin, Philosophische Fakultät III, Institut für Asien-und Afrikawissenschaften, Seminar für Südasien-Studien. doi: 10.18452/8484
- USAID (2017). *Family Planning Countries*. Retrieved 14 November 2017 from https://www.usaid.gov/what-we-do/global-health/family-planning/countries#priority
- Vivek, V. (2017, April 25). India gives most foreign aid to Bhutan, not its new priorities Afghanistan and Africa. Retrieved 27 July 2017 from https://scroll.in/article/835481/india-gives-most-foreign-aid-to-bhutan-not-its-new-priorities-afghanistan-and-africa
- Weisman, S. (1987, August 16). India's drought is the worst in decades. *The New York Times*. Retrieved 23 July 2017 from http://www.nytimes.com/1987/08/16/world/india-s-drought-is-worst-in-decades.html
- World Bank (2017a, May 29). India's economic fundamentals remain strong; Investment pick-up needed for sustained growth, says new World Bank Report. Retrieved 27 July 2017 from http://www.worldbank.org/en/news/press-release/2017/05/29/india-economic-fundamentals-remain-strong-investment-pick-up-needed-sustained-growth-says-new-world-bank-report
- World Bank (2017b). *IDA graduates*. Retrieved 27 July 2017 from http://ida.worldbank.org/about/idagraduates
- World Bank (2017c). 2017 International debt statistics—India [Data bank]. World Bank. Available from http://datatopics.worldbank.org/debt/ids/
- World Bank (2017d). Country Policy and Institutional Assesment [Data bank]. Retrieved 14 November 2017 from https://data.worldbank.org/data-catalog/cpia
- World Bank Open Data (2016a). *Indicators* [Data bank]. Retrieved 23 July 2017 from http://data.worldbank.org/indicator/
- World Bank (2016b). *India overview*. Retrieved 27 July 2017 from http://www.worldbank.org/en/country/india/overview
- World Bank (2016c). *India: Country snapshot*. Retrieved 27 July 2017 from http://documents.worldbank.org/curated/en/341851476782719063/India-Country-snapshot
- World Bank (2016d). *Review of IDA's graduation policy*. Retrieved 27 July 2017 from http://documents.worldbank.org/curated/en/605191468191042391/pdf/103835-BR-Box394865B-OUO-9-IDA-SecM2016-0060.pdf
- Zeigler, R. S., & Mohanty, S. (2010). Support for international agricultural research: Current status and future challenges. *New Biotechnology*, 27(5), 565-572.
- Zepeda, E., McDonald, S., Panda, M., & Kumar, G. (2013). *Employing India: Guaranteeing jobs for the rural poor*. Retrieved 27 July 2017 from http://carnegieendowment.org/files/india\_rural\_employment.pdf