

India and the Free Trade Economy: Calculated, Sustainable Engagement?

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After the breakdown of the 2008 World Trade Organization (WTO) talks in Geneva, Indian Commerce Minister Kamal Nath was castigated as an obstinate spoiler. Commentators blamed India, as well as China, for the latest failure in the WTO's so-called Doha development round of negotiations. Nath was cast as intransigent, refusing to agree to a deal reducing tariffs in both developed and developing countries that proponents suggested would generate tens of billions of dollars in extra trade.¹ Such was the deal's importance that U.S. President George W. Bush telephoned Indian Prime Minister Manmohan Singh during the talks multiple times to iron out an agreement.² But negotiators stumbled over a technical trade safeguard, demanded by developing nations, to allow countries to raise tariffs on agricultural products in cases of import surges. Developing countries argued that subsidized, industrialized agriculture in rich countries could jeopardize the welfare of marginal farmers, of which India has hundreds of millions.³ The talks broke down without an agreement, and Nath returned to New Delhi.

There, supporters cheered him as a hero and honored him with a bouquet of roses. A senior representative from one of India's largest business federations praised Nath "for staying firm to protect India's marginalized farmers and domestic enterprise. What is most important is that you resolutely refused to make any compromises that would hurt developing countries."

¹ Edmund Conway, "American Clash with India and China Threatens Make-or-Break Trade Talks," *The Daily Telegraph* (July 29, 2008) (accessed via *Lexis-Nexis Academic*, April 22, 2012).

² Edmund Conway, "George Bush and Manmohan Singh Help to Keep Trade Talks Alive," *The Daily Telegraph* (July 27, 2008), <http://www.telegraph.co.uk/finance/economics/2793853/George-Bush-and-Manmohan-Singh-help-to-keep-trade-talks-alive.html> (accessed April 22, 2012).

³ Deborah James, "Globalization: Leaving the WTO Behind" (Center for Economic and Policy Research, August, 21, 2008), <http://www.cepr.net/index.php/op-eds-&-columns/op-eds-&-columns/globalization-leaving-the-wto-behind> (accessed April 22, 2012).

Nath himself told reporters, “Livelihood security I cannot negotiate.”⁴

The anecdote hints at the complex nature of India’s interactions with the world since its great economic opening in 1991. India, on the one hand, is sometimes painted as a model for the neoliberal, economic paradigm, posting enviable GDP growth since its engagement in world markets. Yet, as Nath demonstrated, New Delhi is gladly willing to protect its own constituencies and rebuke the so-called Washington Consensus model of development. From this paper, readers should grasp a sense of conflict between India’s trade strategies, between policies that sometimes seem at odds and between different outcomes for sustainability.

A Guide to Reading This Paper

This paper proceeds in four parts. First, it attempts to lay out some basic history and context to set the stage for India’s free-trade regime. Part I provides a snapshot of the present and a flashback to a pre-liberalization era. Second, in Part II, the paper examines the broad trends in India’s trade policy since liberalization with some specific details of note. The period under examination here is from 1991 until roughly mid-2012. Third, the paper attempts to define sustainability in broader terms than economics alone. Part III lays out a more holistic accounting of sustainable development and examines the implications of India’s trade policy. Finally, in Part IV, the paper attempts to look forward and argue for some basic reforms and proposals that might improve the prospects for sustainable development in India. This final part also critically examines what is missing in this analysis and proposes some areas for future research.

PART I – CONTEXT AND HISTORY

India is popularly hailed as a model of liberation, a global power with consistent economic growth. Newspapers fill financial pages with talk of expanding GDP and growing trade, of emerging industry and

⁴ “India Welcomes Nath Back from WTO with Open Arms,” *Economic Times* (August 1, 2008), http://articles.economictimes.indiatimes.com/2008-08-01/news/28443510_1_commerce-minister-kamal-nath-wto-farm-safeguards (accessed April 22, 2012).

increasing power on the international stage. Even Western media picked up the story of the then-governing Bharatiya Janata Party (BJP), which campaigned with a 2004 election slogan: “India Shining.”⁵ One could easily snap a photo then (and now) of that ascent by visiting glitzy American-style shopping malls in New Delhi or Mumbai or Bangalore, where outlets sell international brands to an Indian middle class of consumers estimated to equal the entire population of the United States. Modern movie theaters played the latest Hollywood alongside the latest Bollywood. Indian television ran advertising for everything from LG flat-screen TVs to shiny cars from Indian companies like Tata and Maruti and international mainstays from Ford to Mercedes. GDP per capita, based on purchasing power parity, increased from \$1,209 in 1990 to \$3,073 in 2010, giving rise to the notion of powerful middle class—the shoppers in malls and the targets of TV ads—of as many as 300 million hungry consumers.⁶ To understand how this has coincided with India’s connection with the global economy, consider that exports as a percentage of GDP have risen more than threefold, from just 7 percent in 1990, the year before liberalization gained steam, to 22 percent in 2010. In the same time period, imports as a percentage of GDP rose from 9 percent to 25 percent.⁷

Yet in the midst of this growth, the outcomes of those 2004 elections hinted at a pushback. A largely left-of-center coalition, headed by India’s preeminent party, Congress, won partly by reviling such rampant growth as unequally distributed; the same *Time* magazine story that noted the “India Shining” catchphrase also pointed out dissent among the poor. The divide in India was worsening between the haves and have-nots, a trend that has continued today. Nath, hailed as the champion of the small farmer and the Indian commoner for standing up to the US at the WTO, was appointed by

⁵ Alex Perry, “Subcontinental Divide,” *Time* (February 16, 2004), <http://www.time.com/time/magazine/article/0,9171,501040223-591347,00.html> (accessed April 22, 2012).

⁶ Rachna Saxena, “The Middle Class in India” (Deutsche Bank Research, February 15, 2010), http://www.dbresearch.de/PROD/DBR_INTERNET_DE-PROD/PROD000000000253735.pdf (accessed April 22, 2012).

⁷ World Bank, “World Development Indicators and Global Development Finance Database,” <http://databank.worldbank.org> (accessed April 22, 2012).

the Congress party. Despite astounding GDP growth, the percentage of Indians living on \$2 a day dropped only marginally, from 82 percent in 1994 to 76 percent when calculated again in 2005.⁸ In 2008, the same year that Nath refused to concede to US trade demands, the government wrote off \$17 billion in debt for small farmers, people who live a meager existence. This debt forgiveness to poor farmers who have been left out of the growth story may well have reflected the angst of India's largely rural, agrarian electorate feeling the sting of inequality.⁹ There have also been environmental costs of this growth. As a general snapshot, Yale University's 2012 Environmental Performance Index ranks India 95th in the world in trends from 2000 to 2010, giving India negative marks specifically for agricultural subsidies, water use, worsening particulate matter air pollution, and increasing CO₂ emissions per capita.¹⁰ This paper will explore later just what India's economic growth and global engagement have meant for sustainability—social and environmental.

A Primer in India's Pre-Liberalization Economy

A discussion of India's economic engagement since 1991 requires a brief consideration of history. The modern Indian state is a byproduct of colonialism; before the arrival of the British East India Company, princely rulers controlled substantial portions of the subcontinent. The country has had no continuous narrative of a unified state.¹¹ The Company came to India as part of the imperial rush to secure trade and resources. By the late 1800s, the British Crown held India as a territory of strategic importance. But an Indian national movement arose and in 1947, war-ravaged Britain, unable to control the restless colony, relinquished India to its own rule.¹²

India then pursued a policy of "near autarky," closing itself to most trade. India's first prime minister, Jawaharlal Nehru, adopted a

⁸ Ibid.

⁹ "Waiving, Not Drowning: India Writes Off Farm Loans. Has It Also Written Off the Rural Credit Failure?" *The Economist* (July 3, 2008), <http://www.economist.com/node/11671060> (accessed April 22, 2012).

¹⁰ Yale University Environmental Performance Index, "2012 EPI Country Profiles: India," <http://epi.yale.edu/epi2012/countryprofiles> (accessed April 22, 2012).

¹¹ Surjit Mansingh, *The A to Z of India* (Lanham, MD: Scarecrow Press, 2006).

¹² Dominique Lapierre and Larry Collins, *Freedom at Midnight*, 7th edition (Noida, India: Vikas Publishing, 2009).

Soviet planning model with industrialization via state-owned corporations and public sector investment as the means to alleviate poverty.¹³ Import substitution became a nationalist goal.¹⁴ India's bid to become self-sufficient mirrored a political movement of "swadeshi," or self-dependence. This may have also been fed by Nehru's predilection for high modernism and faith in state organization and planning.¹⁵ India ventured well beyond a structuralist economic development model. Instead of just safeguarding key industries, policymakers delinked nearly all economic activity from world markets.

Though this paper uses the term "liberalization" as shorthand for external economic liberalization and engagement with the global economy, India's domestic economy after Independence was also far from free. Government strictly regulated businesses and specified production, technology, location, and scale. These restrictions accompanied a large-scale nationalization of banking and key industrial sectors. This economic system became known as the License Raj (*raj* being the Hindi word for sovereignty). Protected from competition by onerous state controls, industrial monopolies and large business arose slowly and some—the drug industry, for example—resisted competition from open trade. High tariff rates (well over 100 percent for many products), export licensing, tax scheme, and import/export quotas kept trade limited. Exports hovered in single-digit percentages¹⁶ of GDP. Restrictions on foreign investment kept most capital inflows to sovereign borrowing and bilateral aid.¹⁷ In the mid-1970s, the government began a slow process of domestic and external liberalization—"or at least hesitant and tentative first steps"¹⁸—removing some export licensing restrictions and allowing

¹³ T.N. Srinivasan, "Economic Reforms and Global Integration," in *The India-China Relationship: What the United States Needs to Know*, ed. Francine R. Frankel and Harry Harding (New York: Columbia University Press, 2004), 219–264.

¹⁴ Kishore Kulkarni, "Effect of Globalization on India's Economic Growth" (paper presented at Oxford Roundtable Conference, Oxford, England, July 2005), <http://www.researchindia.org/EffectsofGlobalizationonIndia.doc> (accessed April 22, 2012).

¹⁵ James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1998).

¹⁶ World Bank, "World Development Indicators and Global Development Finance Database."

¹⁷ T.N. Srinivasan 2004.

¹⁸ Baldev Raj Nayar, *India's Globalization: Evaluating the Economic Consequences* (Washington, DC: East-West Center Washington, 2006), 11.

firms to import crucial inputs and technology. But fledgling exports could not keep up with India's borrowing, and the country's debt-to-exports ratio climbed dangerously high. In 1980, external debt was already 171 percent of the country's total export values. That figure peaked in 1991 at 374 percent.¹⁹ With the global economy hurting and oil prices rising, India faced a balance-of-payments crisis and risked default on its loans; the country had startlingly little cash—just enough to pay for two weeks of imports.²⁰ The end result: Conditional borrowing from the International Monetary Fund would force international economic integration.

To secure new IMF funding, India embarked on a grand bargain of economic liberalization. In mid-1991, the government took steps that led to India's New Economic Policy, a broad shift that built on nascent liberalization of the previous 15 years. The government appointed Manmohan Singh, a political outsider and experienced, neoliberal technocrat, as finance minister. Singh appointed Montek Singh Ahluwalia, a World Bank economist, as his own secretary. India transferred gold reserves as collateral to the Bank of England, devalued the Indian rupee—aimed at making Indian exports more attractive—and cut domestic spending, starting with fertilizer subsidies.²¹ The government also announced plans to lower tariffs, invite foreign direct investment, and dismantle quotas used to limit imports.²² Though gradual reforms began more than a decade earlier, in 1991, India's international economic paradigm officially shifted, tilting toward a hesitant but steady embrace of neoliberalism.

PART II – TRADE POLICY AND METRICS

Some Indian observers—including key reform architect Montek Singh Ahluwalia, now a senior economic planner—have referred to the

¹⁹ World Bank, "World Development Indicators and Global Development Finance Database."

²⁰ Bernard Weinraub, "Economic Crisis Forcing Once Self-Reliant India to Seek Aid," *New York Times* (June 29, 1991), <http://www.nytimes.com/1991/06/29/world/economic-crisis-forcing-once-self-reliant-india-to-seek-aid.html> (accessed April 22, 2012).

²¹ Kishore Dash, "India's International Monetary Fund Loans: Finessing Win-Set Negotiations Within Domestic and International Politics," *Asian Survey* 3, no. 6 (1999): 884–907.

²² Kulkarni 2005.

country's external economic liberalization as a case of "gradualism,"²³ a complex and evolving process. Nonetheless, since making its commitment in 1991, India has steadily continued on the path of economic liberalization, and, as Tendulkar and Bhavani suggest, "the direction of the system reform process towards liberalization and globalization has remained unchanged."²⁴ The latest five-year official Foreign Trade Policy of India, released in 2009, sets goals of doubling India's exports by 2014 and its share in global trade by 2020.²⁵

During this period of international engagement, India's economy has emerged as a global force, particularly in the past few years. Since 1990, in constant 2000 dollars, total GDP has more than tripled, from \$270 billion to \$963 billion, and between 2003 and 2010, India averaged annual GDP growth of 8.4 percent.²⁶ As noted, GDP per capita, based on purchasing-power parity, rose more than 250 percent from 1990 to 2010. The counterfactual—what would have happened if India had pursued a different economic path—is certainly worthy of consideration, but denying that India has benefited some from ties to the global economy is nearly impossible.

India's domestic politics resisted a rapid reduction in trade barriers even as the world moved into the WTO era.²⁷ Nonetheless, an analysis of WTO Trade Policy Reviews finds that India has dramatically reduced tariffs and import barriers, though more slowly than proponents would have liked. Policy changes were calculated to be palatable to the business community and politicians who feared electoral backlash if liberalization moved too quickly.²⁸ Early reforms reduced restrictions on capital goods, and industrial inputs followed later by easing controls on imports of consumer goods and agriculture

²³ Montek Singh Ahluwalia, "Lessons from India's Economic Reforms," in *Development Challenges in the 1990s: Leading Policymakers Speak from Experience*, ed. Tim Besley and N. Roberto Zagher (Washington, DC: World Bank, 2005), 193-196.

²⁴ Suresh D. Tendulkar and T.A. Bhavani, *Understanding Reforms: Post-1991 India* (New Delhi: Oxford University Press, 2007), 91.

²⁵ Government of India, Ministry of Commerce and Industry, "Foreign Trade Policy 2009-14" (August 27, 2009), <http://pib.nic.in/archieve/ForeignTradePolicy/ForeignTradePolicy.pdf> (accessed April 22, 2012).

²⁶ World Bank, "World Development Indicators and Global Development Finance Database."

²⁷ Aseema Sinha, "When David Meets Goliath: How Global Markets and Rules Are Shaping India's Rise to Power" (lecture, Global India Series from Mortara Center for International Studies. Washington, DC, March 1, 2012).

²⁸ Ahluwalia 2005, 194.

products.²⁹ Limitations on import licenses—a way to prevent domestic businesses from procuring goods abroad—and various quantitative restrictions were slowly removed from an increasing number of products, gradually exposing domestic enterprises to foreign competition. By 2002, import licensing had become a less important trade control and was used primarily for environmental, safety, and strategic concerns. Tariffs became the primary import restriction,³⁰ and continue to be so today.

In 1990, the simple mean tariff most-favored-nation (MFN) rate was 84 percent, with a slightly higher rate for manufactured products.³¹ This represented a bias against manufactured imports as India practiced tariff escalation in conjunction with decades of policies promoting import substitution. In some cases, individual tariffs stood higher than 300 percent,³² and some World Bank calculations have estimated 1990 mean rates—when including various special import duties—to be 128 percent on average.³³ Tariff rates fell in steps, and by 2009, the MFN mean was only 14 percent. The pattern of tariff escalation has also reversed, as manufactured products in 2009 faced a rate of only 11 percent, while primary product tariff rates held a mean of 23 percent.³⁴ The 2009 mean on agricultural goods was even higher: nearly 32 percent³⁵—a policy to protect agricultural workers, who make up more than 50 percent of total employment.

India's primary product tariff rate of 23 percent remains high compared to its fellow emerging economies of the BRICS bloc—Brazil, Russia, China, and South Africa. China's 11 percent rate comes closest. India has also advocated for special treatment for it and other developing countries with regard to agricultural goods. Look no further than the WTO negotiations in the Doha round, mentioned at

²⁹ World Trade Organization, "Trade Policy Review of India: 1998," Trade Policy Reviews archive, http://www.wto.org/english/tratop_e/tpr_e/tpr_e.htm (accessed April 22, 2012).

³⁰ World Trade Organization, "Trade Policy Review of India: 2002," Trade Policy Reviews archive, http://www.wto.org/english/tratop_e/tpr_e/tpr_e.htm (accessed April 22, 2012).

³¹ World Bank, "World Development Indicators and Global Development Finance Database."

³² T.N. Srinivasan 2004.

³³ World Bank, *India: Policies to Reduce Poverty and Accelerate Sustainable Development* (New Delhi: World Bank, 2000).

³⁴ World Bank, "World Development Indicators and Global Development Finance Database."

³⁵ World Trade Organization, "India Trade Profile 2011," <http://stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=E&Country=IN> (accessed April 22, 2012).

the start of this paper, or recent disputes with the US over poultry tariffs. Simply put, India uses tariffs—much to the ire of US agribusiness³⁶—to protect a key economic sector. Also, tariffs remain a substantial revenue source, accounting for nearly 17 percent of the central government’s tax revenue in 2010.³⁷

As tariffs have come down, India’s import volume has grown dramatically, from only 9 percent of GDP in 1990 to 25 percent in 2010.³⁸ During that period, the composition of imports has remained relatively static. Manufactured imports averaged 51 percent of all merchandise imports from 1990 to 2010. Fuel imports averaged 31 percent. As imports have risen, so have exports. Export values tripled from just 7 percent of GDP in 1990 to 22 percent. Consider that China, the world’s largest exporter by value today, has seen roughly the same growth in terms of percentage points of GDP. Meanwhile, Brazil, an emerging economy and global power in a decidedly different context, had export percentages similar to India’s in 1990 that only expanded to 11 percent of GDP by 2010.³⁹

Over this period, the composition of India’s export trade also changed. Services made up only 20 percent of export values in 1990, a figure that grew to more than 35 percent by 2010,⁴⁰ with information, communications, and tech services covering almost 50 percent of those exports. Even ten years ago, India had become known as “the back office to the world.”⁴¹ Even as merchandise exports as a percentage of GDP have fallen, the makeup of such trade has also changed, primarily led by a growth in fuel exports (explained in part by rising oil prices). Of India’s total merchandise export value, manufactures, food, and fuel exports in 1990 accounted for 71, 16, and

³⁶ United States International Trade Commission, *India: Effects of Tariff and Nontariff Measures on U.S. Agricultural Imports, Investigation No. 332-504* (Washington, DC: United States International Trade Commission, 2009).

³⁷ World Trade Organization, “Trade Policy Review of India: 2011,” Trade Policy Reviews archive, http://www.wto.org/english/tratop_e/tpr_e/tpr_e.htm (accessed April 22, 2012).

³⁸ World Bank, “World Development Indicators and Global Development Finance Database.”

³⁹ *Ibid.*

⁴⁰ World Bank, “World Development Indicators and Global Development Finance Database.”

⁴¹ “Back Office to the World: India Has High Hopes for Its Burgeoning Trade in Business-Support Services,” *The Economist* (May 3, 2001), <http://www.economist.com/node/610986> (accessed April 22, 2012).

3 percent respectively. By 2010, manufactures and food had fallen to 64 and 8 percent, while fuel had risen to 17 percent.⁴²

The picture that emerges is one of an economy that has grown substantially in terms of trade, while concentrating in communication service exports. Notably, food export and import values overall have changed little. However, despite India's economic orientation toward agriculture, it remains outside the "colonial division of labor" put forth by development scholars,⁴³ where many developing countries today have retained the economic structure of the colonial era, exporting primary products while depending on the developing world for manufactures. India's domestic economy may skew toward agriculture in terms of employment, but its export output is geared toward high-tech services with a strong manufacturing base. India's net merchandise exports include an array of products ranging from cars to cotton to metals to pharmaceuticals.⁴⁴

India has also engaged in multilateral trade agreements beyond the WTO, emphasizing India's increasing trade links, particularly with the Global South.⁴⁵ The South Asian Free Trade Area (SAFTA) went into force in 2006 with the goal of dropping most tariffs among Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. The agreement provides special treatment for Least Developed Countries and allows nations to designate special products exempt from tariff concessions. In 2010, India and members of the Association of South-East Asian Nations (ASEAN) entered an agreement as well. India has numerous other bilateral trade deals and is negotiating a large agreement with the European Union. The potential EU agreement is contentious; critics say European gains through increased agricultural exports would be higher than Indian

⁴² World Bank, "World Development Indicators and Global Development Finance Database."

⁴³ Robin Broad, ed., *Global Backlash: Citizen Initiatives for a Just World Economy* (Lanham, MD: Rowan & Littlefield, 2002).

⁴⁴ International Trade Centre, "List of Products Commercialized by India," <http://www.trademap.org/tradestat/selectionmenu.aspx> (accessed April 22, 2012).

⁴⁵ Government of India, "International Trade – Trade Agreements," Ministry of Commerce and Industry, http://commerce.nic.in/trade/international_ta.asp (accessed April 22, 2012).

gains in manufacturing exports.⁴⁶ Furthermore, as the EU bloc is a major trading partner, tariff cuts would reduce revenues for India.

Though international commodity agreements are largely mechanisms of a bygone era,⁴⁷ India also remains a member—at least nominally—of the International Grains Council, the International Sugar Organization, the International Tropical Timber Organization, and the Common Fund for Commodities. Recently, to guarantee prices for its commodities, India has pursued agreements with South Africa and the Mercosur.⁴⁸

India has generally pursued an export strategy cutting tariffs, encouraging production, and even offering export credits, but officials remain willing to delink when need arises. In March 2012 officials banned exports of cotton, despite being one of the world's leading cotton exporters, after domestic prices rose and textile producers worried about limited supplies.⁴⁹ Trade may be a long-term goal, but domestic industry can trump international concerns. Officials lifted the ban six weeks later but pledged to monitor the issue to ensure domestic access to cotton.⁵⁰

Beyond trade engagement with the global economy, Indian policies have also evolved with regard to intellectual property rights. India has implemented the controversial WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) after a ten-year transition period delay authorized for developing countries.⁵¹ India now recognizes 20-year patents, namely of interest to foreign companies, on goods including food, seeds, medicine, and drugs.

⁴⁶ K.M. Gopakumar, "EU-India FTA: Shrouded in Secrecy, It's Certainly Not in Our Interest," *FirstPost* (February 19, 2012), <http://www.firstpost.com/politics/eu-india-fta-shrouded-in-secrecy-its-certainly-not-in-our-interest-214063.html> (accessed April 22, 2012).

⁴⁷ Belinda Coote, *The Trade Trap: Poverty and the Global Commodity Markets*, 2nd edition (Oxford: Oxfam, 1996).

⁴⁸ Government of India, "ISBA Trade Ministers Meet in Pretoria," press release, Ministry of Commerce and Industry (October 19, 2011), http://commerce.nic.in/pressrelease/pressrelease_detail.asp?id=2845 (accessed April 22, 2012).

⁴⁹ Bhaskar Prasad, "India Bans Cotton Exports: How Will This Affect Price?" *International Business Times* (March 7, 2012), <http://www.ibtimes.com/articles/310238/20120306/india-bans-cotton-exports-will-affect-price.htm> (accessed April 22, 2012).

⁵⁰ Biman Mukherji and Rajesh Roy, "New Delhi Swabs Ban on Cotton," *Wall Street Journal* (April 18, 2012), <http://online.wsj.com/article/SB10001424052702304331204577351821760663852.html> (accessed April 19, 2012).

⁵¹ World Trade Organization, "Trade Policy Review of India: 2007," Trade Policy Reviews archive, http://www.wto.org/english/tratop_e/tpr_e/tpr_e.htm (accessed April 22, 2012).

Indian law does contain a protection: a grandfather clause prohibiting infringement action against manufacturers producing a product prior to a patent recognition. As of 2009, India had more than 37,000 patents in force, more than 30,000 of them held by foreigners.⁵² The WTO sees this as a pro-trade policy and supportive of innovation, though this is subject to substantial debate.

PART III – IMPACTS ON SUSTAINABILITY: TRADE AND INVESTMENT

The above examination of trade policy and indicators has shown India to be cautious yet generally dedicated to international economic integration. International trade has increased in the past two decades, and a number of influential policymakers have endorsed trade-oriented growth as the first priority in development.⁵³ However, the free-trade paradigm faces stiff opposition from many development scholars, economists, and activists who argue for a more holistic—or sustainable—path of development to deliver better welfare in terms of equity and justice as well as public and environmental health. This paper will now attempt to provide a definition of sustainable development and look at ways in which sustainability is affected, positively and negatively, by India’s international trade policies.

Sustainable Development Defined

Decades ago a substantial debate began over whether the planet could absorb the impact of humankind’s consumption.⁵⁴ In 1987, the UN World Commission on Environment and Development (WCED) released *Our Common Future*, defining sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”⁵⁵ The WECD report further called for “changing the quality of growth” to take into account equity, social justice, common (rather than competitive) interests, participatory processes, and environmental

⁵² World Trade Organization, “Trade Policy Review of India: 2011.”

⁵³ Ahluwalia 2005.

⁵⁴ Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, and William Behrens, *Limits to Growth* (New York: Universe Books, 1972).

⁵⁵ World Commission on Environment and Development, *Our Common Future* (New York: United Nations, 1987), 54.

protection.⁵⁶ In 1992, the UN Conference on Environment and Development in Rio de Janeiro enshrined much of the WCED report as international principles. The Rio Declaration endorses a state's right to development in the context of a citizen's entitlements to healthy life and environment and calls for state cooperation, international assistance, and local participation to ensure equity, eradicate poverty, and stop unsustainable resource consumption.⁵⁷

These articulations recognize that the development project defined solely by economics is incomplete. Deepak Nayyar, an Indian economist, provides an eloquent understanding:

Development must bring about an improvement in the living conditions of people. It should, therefore, ensure the protection of basic human needs for all—not just food and clothing, but also shelter, health care and education. This simple but powerful proposition is often forgotten in the pursuit of material wealth and the conventional concerns of economics. . . . Economic growth and economic efficiency, or for that matter industrialization, are means. It is development which is an end. Thus, in order to attain development, growth and efficiency need to be combined with full employment, poverty eradication, reduced inequality, human development and a sustainable environment. The purpose of development, after all, is to create a milieu that enables people, ordinary people, to lead a good life.⁵⁸

Sustainable Development in India

India's external trade liberalization and the resulting exports and imports (along with related foreign investment and borrowing) have

⁵⁶ Ibid., 59.

⁵⁷ United Nations, "Rio Declaration on Environment and Development," United Nations Environment Programme, <http://www.unep.org/Documents.Multilingual/Default.asp?documentid=78&articleid=1163> (accessed April 22, 2012).

⁵⁸ Deepak Nayyar, "Globalization and Development," in *Rethinking Development Economics*, ed. Ha-Joon Chang (London: Anthem Press, 2003), 62.

certainly fueled economic growth in the aggregate. GDP per capita, based on purchasing power parity, rose from \$1,209 in 1990 to \$3,073 in 2010, as noted earlier in this paper. Debating the counterfactual—that is, to question whether economic growth could have occurred without international engagement—is not the aim of this paper. Rather, this paper asks: What have been the impacts of India’s liberalization on development, in terms of social and environmental/health goods?

By at least some standards, quality of life has improved in the era of India’s liberalization. The national Human Development Index (HDI)—which accounts for income, education, and health—rose 21 percent from 1999 to 2007, according to India’s 2011 decennial human development analysis.⁵⁹ The report contains a bevy of statistics: Malnutrition has fallen; infant mortality is down; female secondary education enrollment is rising. The percentage of people living on \$2 a day has fallen while literacy has risen universally, including for subpopulations of women and rural residents.⁶⁰

Yet to tie this aggregate, rosy picture entirely to economic growth fueled by globalization and open trade would be disingenuous. The 2011 *Human Development Report* notes, “Despite high growth rates, many people are being left out of India’s growth story and inequality is on the rise.”⁶¹ Inequality in consumption expenditure—a proxy for the difference in the standard of living between those at the economic top and bottom—rose both in rural and urban India from 1993 to 2004.⁶² Consumption expenditure for low castes, indigenous tribes, and Muslims is rising more slowly than for the general population, while female malnutrition has not fallen for these marginalized groups of peoples.⁶³ Even improvements at the state level mask inequality concentrated at the household and block level.⁶⁴ Though liberalized trade and growth may alleviate poverty in

⁵⁹ Government of India, *India Human Development Report 2011: Towards Social Inclusion*, Institute of Applied Manpower Research (New Delhi: Oxford University Press, 2011).

⁶⁰ World Bank, “World Development Indicators and Global Development Finance Database.”

⁶¹ Government of India, *India Human Development Report 2011: Towards Social Inclusion*, 17.

⁶² *Ibid.*, 109–112.

⁶³ *Ibid.*

⁶⁴ Pravin Krishna and Guru Sethupathy, “Trade and Inequality in India,” National Bureau of Economic Research Work Paper Series, No. 17257, July 2011, <http://www.nber.org/papers/w17257> (accessed April 22, 2012).

aggregates, there are clear losers (or at the very least, people who win substantially less).

To test impacts of India's international engagement, this paper now examines state-level per capita GDP growth from 1999 to 2005 (a proxy for purported gains from trade) to look for statistical, bivariate correlations with a number of metrics of sustainable development.⁶⁵ Not surprisingly, per capita GDP growth does correlate with higher formal, private-sector employment. Yet there is no statistically significant correlation between GDP growth per capita and decreases in poverty across Indian states.⁶⁶ Perhaps more revealing, per capita GDP growth actually has a statistically significant negative relationship with state HDI change; states with higher per capita GDP growth saw smaller gains in HDI. GDP growth per capita also shows no statistically significant correlation with female literacy change—a proxy for empowerment of a marginalized section of society—or with an environmental sustainability index (ESI) from 2008. Notably, ESI is positively associated with HDI and negatively related to poverty.⁶⁷ In other words, while ESI showed no relationship to per capita GDP growth, states with higher environmental sustainability scores did see larger increases in HDI and larger decreases in poverty.

These basic statistical findings support a larger point: Economic growth, powered as it has been by India's trade liberalization, simply cannot explain India's achievements in bettering the lives of its people. Though policymakers may judge economic growth through international engagement to be necessary, it certainly is not sufficient for holistic, sustainable development.

Trade and Sustainability

A key sustainability concern for India has been how to manage the effects of global trade on local producers. Yet the composition of trade, in terms of goods imported as well as India's increasing reliance on service exports, also raises questions about India's sustainable development path.

⁶⁵ For correlation matrix, Pearson's r-values and data sources, see Appendix.

⁶⁶ Ibid.

⁶⁷ Ibid.

India has admirably insulated domestic businesses and its large agrarian sector in the face of WTO commitments through calculated and cautious tariff reductions. India also actively uses anti-dumping measures under the WTO to protect local producers from unfair competition; from the inception of the WTO through 2010, India accounted for more than 16 percent of all anti-dumping investigations initiated.⁶⁸ A key question today is how India will handle WTO concerns about the country's domestic pharmaceutical industry, which produces cheap generic medicine for export.⁶⁹ India generally has complied with the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), but the WTO has suggested that India's enforcement of international patents is suspect.⁷⁰ However, if India were to pursue draconian enforcement of TRIPs protections, benefits would likely flow to Western drug makers, while poor consumers across much of the world may suffer. This raises serious questions for fairness as India navigates the WTO intellectual property rights regime.

As noted previously, India has also held its tariff rates substantially higher for farm products to protect small farmers from an influx of imports. To further restrict agriculture trade in the name of equity, the government uses state enterprises such as the Food Corporation of India, which maintains buffer stocks and has a monopoly on imports and exports of some commodities such as wheat. Debate rages over such protections between proponents of liberalized trade and advocates of both food security and food sovereignty.⁷¹ A particular point of contention in stalled WTO trade talks—captured in this paper's opening anecdote from the 2008 Doha negotiations—is the Special Safeguard Mechanism (SSM), sought by India and other developing countries to guard their own producers from price surges brought on by industrialized agriculture imports from the developed

⁶⁸ World Trade Organization, "Trade Policy Review of India: 2011."

⁶⁹ Sinha 2012.

⁷⁰ World Trade Organization, "Trade Policy Review of India: 2007."

⁷¹ Olivier De Schutter, "The World Trade Organization and the Post-Global Food Crisis Agenda: Putting Food Security First in the International Trade System" (United Nations Office of the High Commissioner for Human Rights, November 11, 2012), http://www.ohchr.org/Documents/Issues/Food/20111116_briefing_note_05_en.PDF (accessed April 22, 2012).

world. The SSM battle reveals a philosophical divide between developed nations pressing for trade liberalization and developing countries that take seriously the idea that new trade proposals should support development.⁷² For now, India stands squarely in the latter category. Yet India's farm livelihood protections are under threat; recently, the U.S. challenged India's ban on poultry imports. India says the prohibition guards against bird flu, but the US has called the measure protectionism in the guise of a health standard. A trade skirmish may be underway; India complained to the WTO about US duties on Indian steel and visa fees.⁷³ How the matter is resolved could have serious impacts on India's small farmers.

Even as India protects its farmers from commodity imports, liberalized trade still may jeopardize environmental sustainability. Indian farmers benefit from subsidies on chemical fertilizers, which are almost exclusively imported, with a negative trade balance of more than \$5 billion.⁷⁴ The majority of fertilizer is then applied to basic food crops such as paddy rice and wheat, and to India's most important export commodity, cotton.⁷⁵ Indiscriminate and excessive application of such chemicals is a serious driver of land and water degradation.⁷⁶ And while India protects its small farmers from international markets, the country has liberalized seed development and trade, stirring controversies regarding TRIPs protections for biotech crops, the patenting of seeds, social injustice, and the potential for biodiversity loss.⁷⁷

Clearly, the composition and context of India's liberalized trade matter, as trade can support both sustainable and unsustainable activity. For example, India imports significant amounts of high-tech

⁷² Donald MacLaren, "An Analysis of the Special Safeguard Mechanism with Particular Reference to India," *Margin: The Journal of Applied Economic Research* 5, no. 1 (2011): 47-64.

⁷³ "India Takes U.S. to WTO over Steel Duties," *Agence France Presse* (April 13, 2012), http://www.google.com/hostednews/afp/article/ALeqM5hUu_0k0WSNv9YQD-c_Ltrd8bl_rA?docId=CNG.17a8f950c459eb9c24ac1a9e11bb90cd.171 (accessed April 22, 2012).

⁷⁴ International Trade Centre, "List of Products Commercialized by India."

⁷⁵ Food and Agriculture Organization of the United Nations, *Fertilizer Use by Crop in India* (Rome: FAO, 2005), 24.

⁷⁶ Government of India, "State of Environment Report: India 2009," Ministry of Environment and Forests (July 20, 2009), <http://moef.nic.in/downloads/home/home-SoE-Report-2009.pdf> (accessed April 22, 2012), 12.

⁷⁷ Vandana Shiva, "Resisting the Corporate Theft of Seeds," *Nation* (October 3, 2011), <http://www.thenation.com/article/163401/resisting-corporate-theft-seeds> (accessed April 22, 2012).

machinery and electronics.⁷⁸ In a positive for environmental sustainability, imports have allowed India the necessary technology to fire-up one the largest solar energy arrays in the world.⁷⁹ Yet India also brings in other technology with detrimental consequences. Many used computers, electronics, and gadgets end up in Delhi's back-alley e-waste market, also one of the largest in the world, where low-wage workers including children disassemble broken computers, circuit boards, and other illegally imported electronics.⁸⁰ Though the Indian government banned imports of this e-waste in mid-2011, a loophole exists: NGOs can import electronics as donations that ultimately end up in the scrap yard.⁸¹

In the services trade, India's story has been one of explosive growth—from \$4.6 billion in 1990 to \$123.8 billion in 2010 (current prices)—yet that narrative masks potential problems of equity. These gains are concentrated in a small portion of the country's workers and firms; overall employment in the services sector has risen only from 22 percent of total employment in 1994 to 27 percent in 2010.⁸² Many of the jobs created by India's booming service industry are also vulnerable, despite India's protective labor laws. (In the formal employment sector, many layoffs require government approval, and the World Bank in 2008 scored India a 70 out of 100 for difficulty of firing workers; the United States, by comparison, rated a 0.)⁸³ Companies both domestic and foreign routinely use secondary firms to bring in temporary labor without a formal hiring, thereby avoiding

⁷⁸ International Trade Centre, "List of Products Commercialized by India."

⁷⁹ "Gujarat Flips Switch on Asia's Largest Solar Field, Leading India's Renewable Energy Ambitions," *Associated Press* (April 19, 2012), http://www.washingtonpost.com/world/asia_pacific/gujarat-flips-switch-on-worlds-largest-solar-leading-indias-renewable-energy-mission/2012/04/19/gIQAZghhST_story.html (accessed April 22, 2012).

⁸⁰ Garima Jain, "Where Computers Go to Die," *Tehelka* (January 15, 2011), http://www.tehelka.com/story_main48.asp?filename=hub150111WHERE_COMPUTERS.asp (accessed April 22, 2012).

⁸¹ Subir Gosh, "India Introduces e-Waste Law," *Asiancorrespondent.com* (June 11, 2011), <http://asiancorrespondent.com/57215/india-introduces-e-waste-law/> (accessed April 22, 2012).

⁸² World Bank, "World Development Indicators and Global Development Finance Database."

⁸³ World Bank, *Doing Business 2009* (Washington, DC: World Bank, 2008), <http://www.doingbusiness.org/~media/FPDKM/Doing%20Business/Documents/Annual-Reports/English/DB09-FullReport.pdf> (accessed April 22, 2012).

protections guaranteed to permanent employees.⁸⁴ Proponents say the system aids companies that want to expand but cannot do so because of stringent laws. The downside, however, is clear: Temp workers are paid less, easy to dismiss, and less likely to organize.

Ultimately, as this paper has detailed, while trade liberalization has a demonstrable upside for India, it also presents serious threats to sustainability, as measured in a more holistic fashion beyond simple economic gains. This points toward a role for policy to harness the benefits and mitigate the negatives.

PART IV – THE WAY FORWARD: POLICIES AND CONCLUSIONS

This paper now attempts to offer several policy prescriptions that seek to reshape or roll back unsustainable elements of India's engagement with the global trade regime. The paper makes suggestions for India's performance on the world stage as well as specific ideas for internal policies.

South-South Leadership

India's net imports from other emerging market countries (Brazil, Russia, China, and South Africa) have grown in the past decade. Annual imports minus exports rose at \$1.6 billion in 2001 to almost \$27 billion by 2009, at current prices.⁸⁵ The net imports to India from the Association of South-East Asian Nations (ASEAN) grew \$1 billion in 2001 to more than \$6 billion in 2009. At the same time, India's net exports to South Asian Association for Regional Cooperation (SAARC) countries grew from \$1.5 billion in 2001 to net exports of \$9.2 billion. By comparison, India's trade balance with the United States has grown less, from \$5.1 billion in net exports in 2001 to \$8.1 billion.⁸⁶

These numbers demonstrate the increasing diversity of India's trade partners, particularly among the Global South. India has inked

⁸⁴ Vikas Bajaj, "Outsourcing Giant Finds It Must Be Client, Too," *New York Times* (November 30, 2011), http://www.nytimes.com/2011/12/01/world/asia/for-india-outsourcing-does-the-job-at-home-too.html?_r=1 (accessed April 22, 2012).

⁸⁵ International Trade Centre, "Bilateral Trade by India,"

<http://www.trademap.org/tradestat/selectionmenu.aspx> (accessed April 22, 2012).

⁸⁶ *Ibid.*

trade deals both with ASEAN and South Asian countries. India has also pursued commodity agreements with South Africa and the Mercosur. Notably, India stood up on behalf of developing countries in opposing Global North agendas in the Doha round of WTO negotiations. In essence, India has demonstrated the emerging importance of South-South partnerships. Viewed optimistically, India's emergence as a new partner for Southern countries is a shift in the global economy that threatens to break the traditional colonial division of labor. India can offer a new vision of global trade, pursuing cooperation rather than the nationalist competition presently embodied by international trade systems. If the Doha round of trade talks restarts, India can again press the case of developing countries and attempt to recapture the development agenda that was to be at the heart of any new trade agreements. To do this, India must overcome its own nationalist tendencies—no small obstacle—and find opportunities for cooperation with both smaller developing nations and other emerging powers. Officials must view the growth in India's share of South-South trade as an opportunity not just for it, but also for the larger developing world.

A New Model of Bilateralism

India has a chance to push for sustainable trade in ongoing negotiations, which may even conclude as this paper goes to press. India has market power that many Southern governments lack. As India aggressively negotiates a new trade agreement with the European Union, it could push for a sustainable model of a next-generation trade agreement that works for developing countries by including protections such as the Special Safeguards Mechanism (SSM) and Special Product (SP) designations. A 2008 simulation of an India-EU agreement found that exports would rise faster than imports, but the net impact on India would be negative as incomes and household consumption fall slightly.⁸⁷ That is hardly a strategy for bettering the lives of India's poor. India should continue to defend its dairy and poultry sectors by pushing for SSM and SP protections. It

⁸⁷ Sandra Polaski et al., *India's Trade Policy Choices: Managing Diverse Challenges* (Washington, DC: Carnegie Endowment for International Peace, 2008).

could go further and demand recognition of a basic right to food in the agreement.⁸⁸ India will have to contend with its own internal spoilers: domestic business and industry elite who could benefit from a deal even if average Indians lose. India must rebuff growth ideologues at home and abroad. Policymakers would do well to remember a piece of advice: “Trade should be the servant of development not its master.”⁸⁹

National Green Account

Environmental degradation, caused by trade, can have real and significant socioeconomic costs.⁹⁰ India should heed this lesson, as unrestrained growth has the potential to consume natural resources—minerals, fuels, forests, soils, water, and natural pollution sinks—at an unsustainable rate. India’s economic liberalization has coincided with rising air and water pollution, forest cutting, and destruction of watersheds and soils. As Indian conservation journalist Ananda Bannerjee remarked, “This ecological poverty is spreading across India.”⁹¹ Though the liberalization agenda is only likely to continue in India, policymakers must be careful to moderate their zeal to engage with new markets. Quick gains from trade with new partners may offset or mask mounting environmental costs in the short-term, prolonging recognition and mitigation of the mounting ecological toll.

Progressive officials including the former Minister of Environment and Forests (now the Rural Development Minister) Jairam Ramesh have proposed developing an alternative growth metric, as a counterpart to GDP, that would account for the environmental externalities inherent in economic growth including trade. “Purely economic indicators say nothing about whether material well-being is bought at the expense of environmental impacts, or at the risk of overshooting critical natural system thresholds,” Ramesh said

⁸⁸ Armin Paasch et al., *Right to Food Impact Assessment of the EU-India Trade Agreement* (Aachen, Germany: Misereor, 2011).

⁸⁹ Frances Stewart and Ejaz Ghani, “Trade Strategies for Development,” *Economic and Political Weekly* (August 23, 1986): 1501.

⁹⁰ Kevin Gallagher, “Is NAFTA Working for Mexico?” *Environment Forum* (May/June, 2006): 21–27.

⁹¹ Ananda Banerjee, “Time to Consider India’s Green GDP as Well,” *Mint* (March 15, 2012), <http://www.livemint.com/2012/03/15171536/Views--Time-to-consider-India.html> (accessed April 12, 2012).

in a 2012 speech in Finland.⁹² Ecological economist Partha Dasgupta has written that the natural resource base subsidizes economies, and “being underpriced, nature is overexploited.”⁹³ Dasgupta is now part of an effort in India to create a Green National Account by 2015. India must keep this from being a purely intellectual exercise to be disregarded by business interests—and their captured political representatives. India could incorporate such green accounting in its present trade restrictions and actively managed tariff structure. In committing to its own green accounting, India could set an example internationally.

Institutionalize Fair Trade Regimes

One of the most sustainable and progressive efforts in India’s handicraft sector comes not from the government but from civil society. GoodWeave, an international third-party labeling organization, markets child labor–free woven and knotted rugs. Formerly known as RugMark, GoodWeave was founded in 1994 by an Indian activist to combat child labor in an industry that still relies on tens of thousands of children in South Asia.⁹⁴ India could adopt a childfree labor standard—certified by a third-party such as GoodWeave—as a part of its web of export licensing regulations. GoodWeave counts 68 certified licensees, mostly spread across India’s north central state of Uttar Pradesh. This number would likely multiply and licensees could spread to other textile and handicraft states, if the government put administrative weight behind a child labor–free standard. India might find international support in developed countries, including the United States, that have acted to ban imports of goods produced using child labor.⁹⁵ This could be a

⁹² Jairam Ramesh, “India Is Developing Framework for a Green National Account,” *Business-Standard* (April 15, 2012), <http://www.business-standard.com/india/news/india-is-developing-framework-for-green-national-ac/471340/> (accessed April 22, 2012).

⁹³ Partha Dasgupta, “Nature’s Role in Sustaining Economic Development,” *Philosophical Transactions of the Royal Society B* 365 (2010): 5-11.

⁹⁴ GoodWeave International, “Child Labor and the Handmade Rug Industry,” <http://www.goodweave.net/child-labor-and-the-handmade-rug-industry> (accessed April 22, 2012).

⁹⁵ Joseph Kahn, “Citing Child Labor, U.S. Bans Apparel from Mongolia Plant,” *New York Times* (November 29, 2000), <http://www.nytimes.com/2000/11/29/business/citing-child-labor-us-bans-apparel-from-mongolia-plant.html> (accessed April 22, 2012).

first step; based on experience, India could expand to other third-party certifications such as the Forest or Marine Stewardship Councils.

Conclusion

India represents an interesting case in the world, with a large, diverse economy that is both protected and open at once. India has sought to insulate sectors of the economy seen as crucial to its population—agriculture chief among them—while also making use of the international trade system to its nationalist advantage. Political scientist Atul Kohli, analyzing the economic engagement of the 1990s and 2000s, finds “while some liberalization is real, the Indian state remains activist, willing to support and to work closely with Indian business, but at the same time state actors remain hemmed in by a variety of democratic political pressures.”⁹⁶ India has attempted to balance pro-liberalization, pro-business, and pro-poor interests. Trade has been sought for its benefits and but restricted to protect from some of its vagaries. Though this international engagement has coincided with improvements in living standards in the aggregate, disparities remain. Inequality between groups and regions remains a problem, and serious environmental concerns must be addressed if India’s development is to be sustainable, broadly defined. There is an appropriate role for new policies to recognize the sustainability implications of the free-trade regime.

Limitations and a Need for More Research

The economic mechanisms considered here are complex and often technical. Volumes have been written about the Special Safeguards Mechanism. Generalizations about trade policy, metrics, and impacts are inevitable. At the same time, this paper sidesteps worthy debates and episodes. Only brief mention is made of India’s controversial trade and investment relationship with multinational agribusiness giant Monsanto. That seems egregious, but the topics of genetically modified crops in India, the seeds movement led by Vandana Shiva, concern about biopiracy and TRIPs merit their own lengthy discourse.

⁹⁶ Atul Kohli, “Politics of Economic Growth in India, 1980-2005: Part II, The 1990s and Beyond,” *Economic and Political Weekly* (April 8, 2006), 1364.

Similarly, the unsustainable international fish trade in India—which is rapidly exploiting its seas in the name of exports—has implications both for biodiversity and poor fisherfolk, yet the issue receives no treatment here. The paper also passes on WTO disputes dealing with everything from sea turtles to chicken legs; even brief mention of such contests does disservice to an intricate, important area of international trade law. Finally, this study lacks primary voices that would lend humanity to the narrative of international trade and sustainable development. Though the author has spent a fair amount of time in rural and urban India, this paper has been written from Washington, D.C. As such, it relies on secondary sources and information that changes rapidly. Any of the topics contained herein could benefit from a boots-on-the-ground approach with firsthand accounts of the impacts of India’s liberalization. The shortcomings of this paper, in that regard, are unavoidable and represent areas for further research. India’s story, simply put, needs more storytellers.

APPENDIX — Bivariate correlations

	GDP	Pov.	HDI	ESI	Priv. E.
GDP change per capita (99-05)	1				
Poverty % point change (93-04)	0.206	1			
HDI change (99-07)	-0.372†	-0.520**	1		
Environmental Sustainability Index (08)	-0.098	-0.647**	0.588**	1	
Private employment (07)	0.410*	0.279	-0.193	-0.520**	1
Female literacy change (01-11)	-0.301	-0.471*	0.129	0.231	-0.476*

**= significance at 0.01; *= significance at 0.05; †= significance at 0.1

Sources:

World Bank, “World Development Indicators and Global Development Finance Database.” Government of India, *India Human Development Report 2011: Towards Social Inclusion*. Rupanwita Dash, “Environmental

Sustainability Index for Indian States 2008” (Centre for Development Finance. Institute for Financial Management and Research, October 2008), http://cdf.ifmr.ac.in/wp-content/uploads/2011/03/Full-Report_ESI-for-Indian-States.pdf (accessed April 22, 2012). Government of India, “Data Warehouse,” Ministry of Statistics and Programme Implementation, http://mospi.nic.in/Mospi_New/site/India_Statistics.aspx?status=1&menu_id=14 (accessed April 22, 2012).