

# Supply-side constraints facing South Asian LDCs

## Frontiers and dynamics



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Ratnakar Adhikari



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Views expressed in this paper are of the author and do not necessarily reflect the position of SAWTEE and its member institutions.

## Acronyms and abbreviations

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ADB	Asian Development Bank
AEOs	Authorized economic operators
AfT	Aid for Trade
APEC	Asia-Pacific Economic Cooperation
ASYCUDA	Automated System for Customs Data
ATC	Agreement on Textiles and Clothing
BBIN	Bangladesh, Bhutan, the eastern part of India and Nepal
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BWIs	Bretton Woods Institutions
CAM	Customs Administration Modernization
CHC	Chittagong Customs House
CPI	Corruption Perception Index
DAC	Development Assistance Committee
DCH	Dhaka Customs House
DFQF	Duty-free and quota-free
DoC	Department of Customs
DTISs	Diagnostic Trade Integration Studies
EBA	Everything But Arms
EDI	Education for All Development Index
EFA	Education for All
EIF	Enhanced Integrated Framework
EU	European Union
FY	Fiscal year
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GCR	Global Competitiveness Report
GDP	Gross domestic product
GMS	Greater Mekong Subregion
GNI	Gross National Income
ICT	Information and communications technology
IF	Integrated Framework for Trade-Related Technical Assistance
ISI	Import substitution industrialization

LDC	Least-developed country
LPI	Logistics Performance Index
MFA	Multi-Fibre Arrangement
MFN	Most-favoured-nation
NER	Net enrolment ratio
NTBs	Non-tariff barriers
ODA	Official development assistance
OECD	Organisation for Economic Co-operation and Development
R&D	Research and development
RMG	Ready-made garment
RTAs	Regional trade agreements
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SAPTA	SAARC Preferential Trading Arrangement
SASEC	South Asia Sub-regional Economic Cooperation
TFP	Total factor productivity
TI	Transparency International
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization
USITC	United States International Trade Center
WGI	World Governance Indicators
WTO	World Trade Organization

# Contents

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Executive summary	vii
Introduction	1
Literature review	3
Trade policy contexts in South Asian LDCs	7
Nature of supply-side constraints facing South Asian LDCs	11
Discussion on major binding constraints	25
National, regional and multilateral efforts	39
Conclusion	51
Endnotes	55
References	59



## Executive summary

The inability of South Asian least-developed countries (LDCs), in particular Bangladesh and Nepal, to effectively exploit the market access opportunities generated through more than six decades of trade negotiations as well as some unilateral non-reciprocal trade preferences, is explained partly by the limited supply response. Although trade literature still overwhelmingly focuses on the issue of market access, there has, of late, been some discernible shift towards analysing the role of supply-side constraints in ensuring that market access is converted into market entry. Besides a number of general studies that have been conducted on these constraints, studies conducted in the context of South Asia in general and LDCs such as Bangladesh and Nepal in particular consider the following as the major constraints.

First, inadequate infrastructure for the efficient transportation of goods means that these countries are unable to establish footholds in markets where efficiency in delivery is a key test to determine the sustainability of business relations. Second, lack of human capital particularly endowed with education and skills necessary to process exportables means that despite low wages, South Asian workers are unable to match the level of productivity of the workers in other highly competitive countries even in labour-intensive production. Third, lack of access to credit hinders, *inter alia*, the prospects for meeting the working capital requirement and expanding the business volume as well as enhancing investments in capital goods. Fourth, high costs of inputs resulting from the poor

quality of infrastructure and the virtual absence of backward linkages results in reduced competitiveness of exporters. Finally, virtual absence of trade facilitation measures, causing, *inter alia*, delays in shipment of goods as well as unofficial payments for both imports and exports.

Although all of them are important constraints, in this discussion paper, we focus on the analysis of three major binding constraints: a) road infrastructure within the category of infrastructure; b) education within the category of human capital; and c) customs infrastructure and administration within the category of trade facilitation measures. The expectation is that overcoming these constraints would help unleash the export potentials of South Asian LDCs. While it is the primary responsibility of the national actors (in particular, the government and the private sector) to overcome these, the discussion paper suggests that targeted international support measures also have a significant role to play in helping South Asian LDCs in the provisioning of public goods that will ultimately result in the alleviation of these constraints.

The paper identifies governance as a major problem for the under-provisioning of these public goods. It enlists three major gaps on the governance front—namely: a) integrity gap; b) institutional gap; and c) implementation gap—as the major barriers. Another problem identified by the paper for the under-provisioning of public goods is related to the mobilization and management of resources. These limitations notwithstanding, there have been considerable efforts



at the national level, whether by the government or the private sector (the latter one is particularly relevant in the case of Bangladesh), to overcome these binding constraints. Although the progress made on this front is laudable to some extent, it is far from satisfactory if we consider the global trend as the benchmark.

There has been some effort at the regional and sub-regional levels, particularly in the areas of human capital, trade facilitation and infrastructure development, to help the countries in the region alleviate their supply-side constraints. However, like national efforts, they are far from sufficient. This makes initiatives such as the proposed *LDC Integration Fund*, primarily aimed at overcoming the resource crunch problem faced by the region—especially concerning overcoming supply-side constraints facing the LDCs in the region—all the more important.

At the multilateral level, most of the initiatives taken in the past have not produced the desired results mainly due to

coordination problem and resource constraints. The AFI initiative, which promised to be a vehicle for the delivery of financial resources to developing countries in general and the LDCs in particular, has also come under criticisms due to extremely broad definition, direct delivery mechanism as opposed to the creation of a vertical fund, debt-creating nature, continued focus on “software” as opposed to “hardware”, and a lack of donor coordination.

Given the fact that the initiative is the last hope for the LDCs, any failure on this front could severely jeopardize their efforts to better integrate themselves into the global economy in general and the multilateral trading system in particular. Worse, the failure of the initiative to address the supply-side constraints facing these countries could have deleterious impacts on the credibility of the WTO. Therefore, the above criticisms against the initiative should be taken as a clarion call to reform and fine tune the initiative before it becomes too late.

# Introduction

As traditional trade barriers such as tariffs and quantitative restrictions have fallen all over the world due to more than six decades of trade negotiations and increased market access for the least-developed countries (LDCs), attention is gradually shifting towards supply-side constraints faced by the LDCs. First, the LDCs, by definition, have a limited supply capacity which restricts “supply response” to market opening—a fact largely ignored in trade theory literature in an endeavour to extol the virtues of trade liberalization. Second, there has been a growing realization among policy as well as academic communities that increased market access alone does not necessarily translate into increased volume of trade for poor countries, because other elements of trade costs, which are much higher in the LDCs compared to other countries, could stifle their export prospects.

Although South Asian countries, including the LDCs, have recently started moving into more sophisticated and higher-value manufacturing, a rapid move in this direction is indispensable if they are to compete in the highly integrated and competitive global market. This demands a seamless movement of goods—imports as well as exports—across borders. The adage “time is money” is assuming increasingly greater salience in the global economy, which, *a la* Feenstra (1998), is characterized by “integration of trade” and “disintegration of production”.

This is more so in the context of the available evidence suggesting that each

day saved in the shipment of goods is equivalent of a 0.8 percent saving on ad valorem duty (Hummels 2001) and each additional day a product is delayed prior to being shipped, on an average, reduces trade by at least 1 percent.<sup>1</sup> Indeed, the potential trade gains, particularly for the LDCs, as a result of the conclusion of the ongoing Doha Round of multilateral trade negotiations pale in significance compared to the benefits they could realize from “trading on time”, i.e., by reducing time between origin to destination (*ibid*). This view is echoed by Francois and Manchin (2007: 23), who find the role of basic infrastructure in explaining variation in trade to be much more significant than traditional trade barriers—the reduction of which is one of the fundamental objectives of the World Trade Organization (WTO). Similarly, a recent study by Hoekman and Nicitia (2010: 75–76) shows that the reduction in trade costs dwarfs trade gains that could be potentially realized by low-income countries from the successful conclusion of the Doha Round.

However, it has to be noted that transport and trade facilitation—which now form a part of trade logistics—are only a part of the supply-side story. Production capacity, human capital, technology and access to finance are equally important constraints for South Asian countries in general and the LDCs in particular, not least because removing these barriers could potentially contribute to increased productivity of domestic goods, thereby enhancing their competitiveness in the international market. Therefore, this pa-

*Increased market access alone does not necessarily translate into increased volume of trade for poor countries.*

per, besides deliberating on the nature of supply-side constraints facing two South Asian LDCs—Bangladesh and Nepal—discusses three major binding constraints, namely transportation, human capital and trade facilitation issues at greater length.

The paper is organized as follows: Chapter 2 provides a brief survey of literature on supply-side constraints facing developing countries in general and South Asian LDCs in particular. Chapter 3 provides a brief overview of the trade challenges faced by the LDCs in general

as well as the trade policy context of South Asian LDCs. Chapter 4 discusses the nature of supply-side constraints facing two South Asian LDCs (Bangladesh and Nepal), which is followed by an in-depth study of the three major binding constraints, namely infrastructure, human capital and trade facilitation, in Chapter 5. Since there have been some endeavours at the national, regional, sub-regional and multilateral levels to help these countries overcome supply-side constraints, some of these efforts are discussed in Chapter 6. The final chapter concludes the discussion.

# Literature review

A wide range of literature relating to the integration of the LDCs into the global economy reviewed for the purpose of this paper is almost unanimous on the view that market access barriers continue to act as binding constraints to these countries' efforts towards "exporting their way out of poverty" (see Inama 2002; Laird and Puri 2005). Removing such barriers would result in significant welfare gains to these economies (see UNCTAD and Commonwealth Secretariat 2001; Hoekman, Ng and Olarreaga 2001). This argument is also corroborated by several other writings and advocacy documents, which assert that products of export interest to the LDCs face unusually high market access barriers particularly in developed-country markets (see Stiglitz and Charlton 2006; Puri 2005; World Bank and IMF Staff 2001).

Implicit in the above analyses is a conjecture that the LDCs have an infinitely elastic supply response to enable them to enhance their exports, once trade barriers are removed and market access guaranteed. This also pre-supposes a "market-based" response, whereby enterprises in the LDCs are expected to respond swiftly to market opening (Pandey 2006). However, this has not happened, as was envisaged by Pascal Lamy, the then Trade Commissioner of the European Union (EU), at the time of the EU offering duty-free and quota-free (DFQF) market access to the LDCs under the Everything But Arms (EBA) initiative. He had cautioned: "Duty-free access alone is not enough to enable the

poorest countries to benefit from liberalized trade. We need to help them build their capacity to supply goods of export quality" (European Commission 2000).

These concerns are also echoed by a number of other scholars (see, for example, Held 2004; De Vylder 2007). Even the Diagnostic Trade Integration Studies (DTISs)—which were prepared as part of the Integrated Framework for Trade-Related Technical Assistance (IF) for the LDCs—have emphasized that a number of supply-side problems represent the strongest constraints to the LDCs' integration into the global economy.<sup>2</sup>

The issue of supply-side constraints, which includes the absence or limited availability of physical infrastructure, human capital, functional institutions, technological capacity and access to finance, was raised as far as back in 1999, when the United Nations Conference on Trade and Development (UNCTAD)'s LDC Report focused on building productive capacities and competitiveness in the LDCs (UNCTAD 1999).

Later, a report published by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP 2004) brought the issue of supply-side constraints under sharper focus in the context of Asian developing economies. According to the report, the presence of competitive enterprises and an efficient mechanism to ensure that goods and services reach the market on time and cost competitively are vital to taking advantage of market access opportunities.

*The issue of supply-side constraints was raised prominently as far back as in 1999, in UNCTAD's LDC Report.*

An empirical analysis, using a sample of developing countries and the LDCs, finds that export response to trade liberalization has been relatively limited in the LDCs compared to developing countries, primarily due to weaknesses in “domestic productive capacities” (Santos-Paulino 2007). This finding is consistent with the previous works on binding constraints to export, including, but not limited to, Fugazza (2004) and Redding and Venables (2004). Similarly, a study focusing exclusively on Pacific Island Economies finds that if supply-side constraints were removed, the increase in export receipts would be very promising (Ram, Prasad and Duncan 2005).

Apart from these general studies, a specific study focusing on infrastructure and transportation costs, a major supply-side constraint, reveals that “poor infrastructure accounts for 40 percent of the predicted transportation cost for the coastal countries and upto 60 percent for landlocked countries” (Venables and Limao 2001: 252).

Besides traditional supply-side constraints, the emergence of new forms of constraints is adding to the burden of LDC exporters. Some of them, such as those related to standards concerning consumer health, safety and environment, have their roots in market access barriers. The LDCs without the necessary infrastructure, legal system and administrative apparatus in place to assure the importing countries’ authorities of their ability to comply with these standards are bound to face barriers to their exports.<sup>3</sup> Putting them in place is, however, highly resource demanding and regional trade agreements (RTAs) could be instrumental in making some headway in this direction (Maur 2008). Moreover, some other supply-side constraints, such as trade facilitation measures, are equally costly to implement despite their unambiguous trade benefits (OECD 2005; Wilson, Man and Otsuki 2005).

In the context of South Asian LDCs, which are the focus of this study, several

recent studies have made an attempt to analyse supply-side constraints. One of the first such efforts was made by Razzaque (2005), which views supply-side constraints as the major factor impeding competitiveness in the textiles and clothing sector of Bangladesh. The study lists eight supply-side constraints, which can be clustered into three categories.

First, under the infrastructure cluster, one can include the availability, or lack, of certain infrastructure facilities (such as road network, power and utilities) as well as the quality of such facilities even where they are available (such as frequent power cuts, dilapidated road and inefficiency of port facilities). Second, under the governance cluster, issues such as the invisible cost of doing business (e.g., bribery and corruption) can be included. Third, under the input cluster, problems such as limited access to finance, skilled human resources and backward linkages can be included.

A study by Razzaque and Raihan (2007), which looks at the trade and industrial policy environment of Bangladesh with a view to recommending policy measures to facilitate export diversification for the country in the aftermath of the phasing out of textiles and clothing quotas, concurs with Razzaque (2005) in general. However, the study also shows that low level of technology has impeded Bangladesh’s prospects for moving up the value chain ladder in garment products and achieving diversification towards the exports of non-traditional items.

Similarly, in the context of Nepal, Pandey (2008), who investigates the binding constraints to Nepal’s export expansion, identifies labour market rigidities; low level of innovation, technology acquisition and adaptation; inadequate infrastructure; underdeveloped trade logistics; uncompetitive port facilities; inefficient customs administration; pervasive corruption; and the absence of the rule of law as the major supply-side constraints. In a similar vein, Adhikari *et al.* (2008) suggest that inadequacy of human capi-

*The emergence of new forms of constraints is adding to the burden of LDC exporters.*

tal, infrastructure, quality assurance and certification, technological capability, access of finance, and trade facilitation measures are the major supply-side constraints facing Nepal. These findings are consistent with a sectoral study, which, among others, looks at the supply-side constraints facing the South Asian textiles and clothing sector (Adhikari and Weeratunge 2007).

In sum, all these studies, which analysed the supply-side constraints faced by the two South Asian LDCs under consideration, have highlighted the following supply-side constraints:

- Inadequate infrastructure within the region in general and among the LDCs in particular for the efficient transportation of goods (see also De 2005) means that these countries are unable to establish footholds in markets where efficiency in delivery is a key test to determine the sustainability of business relations.
- Lack of human capital particularly endowed with education and skills necessary to process exportables means that despite low wages, South Asian workers are unable to match the level of productivity of the workers in other highly competitive countries (such

as China) even in labour-intensive production (see also Siddiqui 2007).

- Lack of access to credit hinders, among others, the prospects for meeting the working capital requirement and expanding the business volume as well as enhancing investments in capital goods.
- Virtual absence of trade facilitation measures, causing, among others, delays in the shipment of goods, as well as unofficial payments for both imports and exports.

Since supply-side constraints are not defined in the literature, Adhikari (2011) proposes a heuristic definition thus:

*Supply-side constraints are the constraints on supply capacity that limit the ability of a country to produce goods and/or services for exporting to the international market in a competitive manner. Although some of these constraints are due to natural handicaps, the majority of these are owing to the governance failure implying the inability of the government to make optimal provisioning of public goods. These include deficiencies in infrastructure, human capital, finance, technology and trade facilitation measures.*

We shall revisit the various constituent parts of the definition in Chapter 4 and discuss them in greater detail.

*Inadequate infrastructure, lack of human capital, lack of access to credit and inadequate trade facilitation measures are critical supply-side constraints.*

# Trade policy contexts in South Asian LDCs

## 3.1 Introduction

Despite their relative openness, the LDCs remain marginalized in the global trading system. Although some of the LDCs have improved their exports lately, they may not be able to sustain the growth momentum because most of their exports are concentrated in a few products—mostly oil or ready-made garment (RMG), both of which have extremely volatile international markets. While oil-exporting LDCs have already seen their export revenue decline in 2009 due to a rapid fall in oil prices, RMG-exporting LDCs have been taking advantage of preferential market access opportunities, which, however, are in the process of being eroded either due to the possibility of the major donor countries providing deeper preferences to emerging developing countries,<sup>4</sup> or due to possible multilateral liberalization under the Doha Development Agenda of the WTO, which will reduce most-favoured-nation (MFN) tariffs on most of the products of export interest to the LDCs.

Against this backdrop, this chapter first discusses the position of the LDCs in general in global trade and their vulnerabilities, followed by discussions of the trade policy contexts in South Asian LDCs.

## 3.2 LDCs' position in global trade

The LDCs, the 48 poorest countries<sup>5</sup> of the world, are so categorized by the United Nations (UN) on the basis of three

criteria, namely low per capita income, weak human assets and high economic vulnerability (UNCTAD 2004). These countries, which house 12 percent of the global population, collectively account for less than 2 percent of global gross domestic product (GDP) (Bhattacharya 2010). The economic growth rates of a significant number of LDCs have been abysmally low, and the poverty reduction effects of such growth are likely to remain weak (UNCTAD 2007).

Despite their lacklustre economic performance, trade integration of the LDCs over the past two decades has been one of the most rapid in history. The degree of integration of the LDCs—measured by trade liberalization—is higher than that of many high- and middle-income countries. Whether we measure trade liberalization in the LDCs by the level of tariff barriers and non-tariff barriers (NTBs) or by the trade-to-GDP ratio, the LDCs are generally more liberal than some developing countries (Raihan *et al.* 2007). Despite the high degree of openness, the LDCs' performance in terms of increasing trade (mainly exports) with a view to achieving sustained economic growth and poverty reduction has not been encouraging.

On the face of it, the LDCs have, of late, increased their share in world trade, which reached 1.1 percent in 2008 (WTO 2009). However, what is hidden behind this figure is the fact that seven oil- and RMG-exporting LDCs accounted for the lion's share (73.8 percent) of LDC exports (Table 3.1).<sup>6</sup> This has also

*Despite their lacklustre economic performance, trade integration of the LDCs over the past two decades has been one of the most rapid in history.*



contributed to respectable growth in select LDCs' GDP in the recent past. However, neither the export growth nor the GDP growth experienced by these LDCs can be considered sustainable because oil prices declined to a record level in early 2009 after slightly picking up later during the year. Similarly, RMG exports of Bangladesh and Cambodia have also shown signs of lower growth rates than what were achieved in the past few years. Both of these trends are attributed to the slower demand for oil as well as RMG in the developed world due to the global economic meltdown.

*Most of the LDCs are reluctant to engage non-state actors in trade policy-making processes.*

Notwithstanding these disappointing results, including asymmetric benefits, the LDCs have been making every possible effort to integrate their economies into the global economy. Out of the 48 LDCs, 33 are already members of the WTO and nine others are in various stages of the accession process (Adhikari *et al.* 2008). However, this drive cannot merely be ascribed to economic rationale. It is also a result of political economy considerations such as “locking-in” domestic reform, becoming part of the global economic community, and, for landlocked countries, securing predictable transit facility (Adhikari 2005).

The LDCs are poorly represented in the WTO, with some 20 LDCs not having

any permanent representation in Geneva, which means that their ability to influence the decision-making process of the WTO is extremely limited (De Vylder 2007: 34). The capacity to analyse trade negotiation issues and to make an informed judgment is limited even among capital-based officials (*ibid.*). Most of the LDCs are reluctant to engage non-state actors in trade policy-making processes, although some changes have occurred in the recent past in select countries (Rajkarnikar 2005). Due to growing awareness of the limited benefits of WTO membership for their economies, they are becoming highly vocal of late and have shown remarkable unity while pressing for their key demands. These general observations at the global level are valid in the case of South Asian LDCs as well (Adhikari 2010), which is elaborated in the next section.

### 3.3 Trade policy contexts in South Asian LDCs

The overall trade policy contexts in most South Asian LDCs are, by and large, influenced by the prevailing orthodoxy of the time, thereby exhibiting some degree of similarities. Most of the LDCs followed protectionist trade policies during the heyday of import substitution industrialization (ISI) strategies. When balance-of-payments crises led these countries to

**Table 3.1** Share of seven major LDC exporters in LDC exports

	Major export	Merchandise export US\$ billion		Percentage change of export value	
		2008 (% of LDC exports)	2007 (% of LDC exports)	2000–2008	2007–2008
Angola	Oil	67.1 (38.1%)	39.9 (33.3%)	31	51
Bangladesh	RMG	15.4 (8.8%)	12.5 (10.4%)	12	23
Cambodia	RMG	4.3 (2.4%)	4.1 (3.4%)	15	5
Chad	Oil	4.7 (2.7%)	3.5 (2.9%)	50	27
Equatorial Guinea	Oil	16.3 (9.3%)	10.0 (8.3%)	40	60
Sudan	Oil	12.1(6.9%)	8.9 (7.4%)	27	36
Yemen	Oil	10.0 (5.7%)	7.3 (6.1%)	10	27
Total		129.9 (73.8%)	86.2 (71.8%)		

Source: WTO (2009); WTO (2008).

seek assistance from the Bretton Woods Institutions (BWIs), they followed a path of rapid trade liberalization following the prescriptions of these institutions, which were guided by the Washington Consensus. They embarked on the path of “unilateral” or “autonomous”<sup>7</sup> trade liberalization by substantially reducing tariffs as well as NTBs,<sup>8</sup> and signed various trade agreements in order to “lock in” trade liberalization. Although Bangladesh, the Maldives and Nepal are members of the WTO, they have different sets of commitments made at the time of their membership.<sup>9</sup> Afghanistan and Bhutan are in the process of acceding to the WTO.

Four LDCs, which are the founder members of the South Asian Association for Regional Cooperation (SAARC)—Bangladesh, Bhutan, the Maldives and Nepal—participated in the SAARC Preferential Trading Arrangement (SAPTA), which was eventually converted into a free trade agreement in the form of the Agreement on South Asian Free Trade Area (SAFTA).<sup>10</sup> Afghanistan, a recent entrant to SAARC, has also become a member of SAFTA. Bangladesh, Bhutan and Nepal are also members of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) Free Trade Agreement, which aims to reduce tariff barriers among the participating countries, representing South Asia and Southeast Asia<sup>11</sup> by 2017. It is much more far reaching than SAFTA in the sense that it not only covers trade in goods, but also seeks to cover services, investment, technology and human resources (Ministry of Foreign Affairs 2009).

Another major similarity between Bangladesh, the Maldives and Nepal is that there has been a significant change in their export composition in the recent past, from being exporters of mainly primary commodities to exporters of mainly manufactured products (UNCTAD 2008). This achievement would not have been possible without the global market imperfection in the textiles and cloth-

ing sector, a direct consequence of the Multi-Fibre Arrangement (MFA), which restricted imports from competitive countries and provided opportunities to relatively less competitive countries like Bangladesh, the Maldives and Nepal to take first steps towards export-oriented industrialization.<sup>12</sup> However, Afghanistan and Bhutan could not take advantage of this opportunity. The MFA was later integrated into the Agreement on Textiles and Clothing (ATC) of the WTO and phased out in 2005, with the result that the Maldives has been completely wiped off from the map of textiles- and clothing-exporting countries, while Nepal is likely to face a similar fate (Adhikari and Yamamoto 2007; Adhikari and Weeratunge 2007). Finally, all South Asian LDCs have been beneficiaries of the preferential market access facilities granted by developed countries.

As a culmination of various efforts made in order to facilitate the integration of developing countries into the world economy, members of the General Agreement on Tariffs and Trade (GATT) decided to introduce the Enabling Clause<sup>13</sup> into the multilateral trading system, which institutionalized the process of granting preferential market access to developing countries on a non-reciprocal and non-discriminatory basis. This Clause, which also envisages deeper preferences for the LDCs,<sup>14</sup> has indeed helped several developing countries in the process of their industrial development (see, for example, Hoekman *et al.* 2001; UNCTAD and Commonwealth Secretariat 2001; Khatun 2007).

As per this arrangement, various developed countries have provided duty concessions to developing countries, but the EU has been at the forefront of providing preferences to the LDCs.<sup>15</sup> In May 2001, the EU announced a DFQF market access initiative for the LDCs—the EBA initiative. According to the spirit of this initiative, it is possible for the LDCs to export virtually everything to the EU free of duty, except for arms and ammunitions, and three sensitive items (rice,

*The shift in export composition from primary commodities to manufactured products in the LDCs would not have been possible without the Multi-Fibre Arrangement.*

**Table 3.2** Trade profiles of South Asian countries at a glance, 2009

Country	WTO membership	Final bound tariff (%)	Avg. applied tariffs (%)	Trade-GDP ratio (2007–2009) (%)	Share in world import (%)	Share in world export (%)	GATS commitments sectors
Afghanistan	Process of accession	-	5.6	-	0.02	0.00	-
Bangladesh	Founding member	169.2	14.7	49.1	0.10	0.03	9
Bhutan	Process of accession	-	21.9	102.9	0.00	0.00	-
India	Founding member	48.1	12.9	46.2	2.54	2.61	37
Maldives	Founding member	36.9	20.4	180.0	0.01	0.02	5
Nepal	Acceded in 2004	26.0	12.4	48.6	0.02	0.02	77
Pakistan	Founding member	59.9	13.9	38.9	0.21	0.07	45
Sri Lanka	Founding member	30.2	11.2	59.5	0.08	0.06	27

GATS: General Agreement on Trade in Services.

Source: WTO (2010).

*Stringent rules of origin have prevented LDCs from benefiting substantially from preferential market access schemes.*

sugar and banana), which too were later phased in. Although the LDCs in general have not been able to benefit substantially from this arrangement primarily due to stringent rules of origin (ROO) requirements,<sup>16</sup> all the LDCs, to some extent, are beneficiaries of this scheme.

However, an analysis of the trade pattern of South Asian LDCs suggests that, barring Bangladesh, which has done remarkably well in terms of RMG exports, other LDCs remain marginalized in the global trading system. As can be seen

in Table 3.2, despite having low average tariffs and liberal trade regimes, as reflected by low average applied tariffs as well as trade-to-GDP ratios, their shares in global trade remain dismal. For example, Afghanistan and Bhutan have miniscule shares in world trade, particularly exports, which are not even captured by the global trade data upto two decimal points. Even a high-performing exporter such as Bangladesh has only 0.02 percent share in global exports, despite the fact that it is home to 2.67 percent of humanity.

### Issues for discussion

- Have the pattern of LDCs' trade and the level of their integration into the global economy changed both in formal and substantive senses in the past four decades?
- How has the evolution of the trade policy regimes in South Asian LDCs influenced their degree and nature of integration into the global economy?
- How conducive are developed-country preferential market access schemes to the expansion of LDC exports?

# Nature of supply-side constraints facing South Asian LDCs

## 4.1 Introduction

The definition provided in Chapter 2 makes it clear that supply-side constraints are the sum total of various “behind-the-border” constraints faced by the LDCs. One can divide the main thrust of that definition into four major constituent parts in the context of this paper. First, the issue of production capacity is what is required to produce goods, whether or not in a competitive manner. Second, the goods so produced should be competitive in the global market, for which a higher level of efficiency and productivity, and a seamless trading environment become fundamental. Third, it is vital to appreciate how geographical constraints impede the prospects for enhancing the competitiveness of the LDCs, particularly landlocked ones. Finally, the role of governance in the provisioning of trade-related public goods assumes great salience in ensuring that the goods so produced and traded are competitive.

## 4.2 Production capacity

The LDCs, by definition, are structurally handicapped, without which they would not have a high economic vulnerability index—which is one of the three criteria for the inclusion of countries in the LDC group. The first major problem is that the production in the LDCs is generally low because most of these countries’ agricultural production depends on rain-fed irrigation, which in turn is a result of a lack of organized irrigation facilities. This means that they have limited surplus left for exports, after accounting

for domestic consumption, which too is rising due to high population growth in these countries.

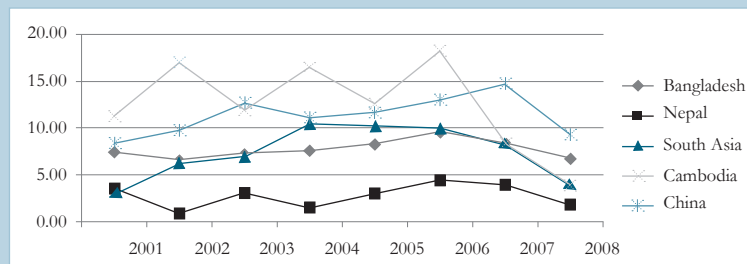
Data for industrial value addition growth show the constrained nature of production. Figure 4.1 shows industrial value added growth for the select two South Asian LDCs (Bangladesh and Nepal), the South Asian region, a fast-developing country (China), and an LDC from Southeast Asia (Cambodia) for the period 2001–2008. Nepal has the worst growth rate of industrial value addition in the period, followed by Bangladesh. Although Bangladesh has achieved a much higher growth compared to Nepal and has a marginally better growth rate compared to the South Asian average, its growth rate is still lower than China’s and Cambodia’s.

*The LDCs have limited surplus left for exports, after accounting for domestic consumption.*

## 4.3 Competitiveness of exports

Goods produced by the LDCs are relatively less competitive in the global market due to several factors such as lack of timely availability of inputs, low produc-

Figure 4.1 Industrial value added growth (%)



Source: Author's calculation based on the World Development Indicators database.

tivity levels, lack of technological capacity, and limited access to finance, among others. Studies on competitiveness-related supply-side constraints conducted so far in the context of South Asian LDCs highlight, as the major binding supply-side constraints, inadequate infrastructure for efficient production and transportation of goods; lack of human capital endowed with education and skills to process exportables; limited access to credit due to conventional/conservative banking practices that rely more on collateral than on the feasibility of business ventures; limited use of technology in the production processes which impedes the prospects of what is known as “moving up the value-chain ladder”; and virtual absence of trade facilitation measures which causes delays in the shipment of goods (see, for example, Raihan *et al.* 2007; Adhikari and Weeratunge 2007).

*Bangladesh and Nepal fall below other South Asian countries in terms of infrastructure, ease of access to loan, and technological readiness.*

These features are also reflected in South Asian LDCs’ rankings in the Global Competitiveness Report (GCR) 2010–2011 published by the World Economic Forum, which bases its analysis on 12 different indicators of competitiveness. While all the factors analysed by the GCR are necessary to measure the level of competitiveness of the economy, this paper shall only focus on four factors that have been identified as the major binding constraints by earlier studies, namely: infrastructure, human capital

(represented by health and primary education), access to finance (represented by ease of access to loan), and access and adaptability to technology (represented by technological readiness), based on the rankings and indices presented in the GCR 2010–2011.

Table 4.1 shows that in terms of various competitiveness rankings, Bangladesh and Nepal fall below other South Asian countries in terms of infrastructure, ease of access to loan, and technological readiness, although both of them have better indicators than Pakistan in the case of health and primary education. In terms of ease of access to loan, India is the country with the best indicator within the region, followed by Sri Lanka and Pakistan. However, Bangladesh and Nepal rank much lower in this indicator as well.

South Asian countries, with the exception of India, continue to produce and export “poor-country goods” and their efforts at enhancing their competitiveness and achieve export diversification have not produced satisfactory results; nor are they targeted at moving up the technology ladder. Barring India, South Asia’s research and development (R&D) credential in general is not encouraging, as measured by industrial value addition, business sophistication index, innovation index and technological readiness index. Further, Bangladesh and Nepal,

**Table 4.1** Select competitiveness rankings and indices, 2010

Country	Infrastructure		Health and primary education		Ease of access to loan		Technological readiness	
	Rank	Index	Rank	Index	Rank	Index	Rank	Index
	N = 139	(1 to 7)	N = 139	(1 to 7)	N = 139	(1 to 7)	N = 139	(1 to 7)
Switzerland (Overall, top)	6	6.1	7	6.6	22	3.7	7	5.6
Bangladesh	133	2.1	106	5	79	2.6	126	2.7
India	86	3.5	104	5.2	39	3.3	86	3.3
Nepal	139	1.8	109	4.8	88	2.5	134	2.5
Pakistan	110	2.8	123	4.3	40	3.3	109	2.9
Sri Lanka	70	3.8	35	6.2	38	3.3	84	3.4
Chad (Overall, bottom)	137	1.8	138	2.9	115	2.1	138	2.3

Source: World Economic Forum, 2010, *Global Competitiveness Report 2010–2011*.

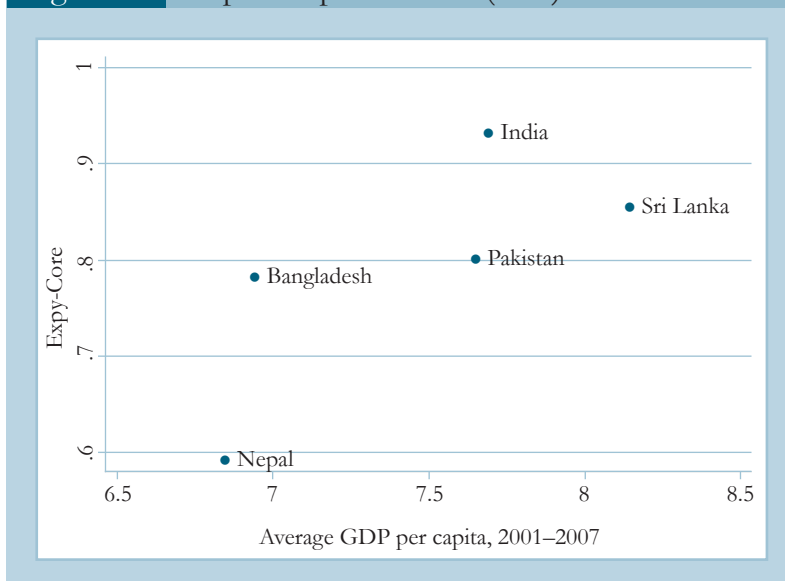


which were included in the latest GCR, rank much lower than their developing-country neighbours in South Asia in these aspects (Table 4.2).

Export sophistication and its prospects can also be assessed through measures associated with the literature on product space, a graphical representation of all products exported in the world which shows the “proximity” of all products, i.e., the likelihood that a country exports a product given that it exports another one (Hildago *et al.* 2007). EXPY-core is a measure of export sophistication which looks at the core (machinery, chemical and metals) of the product space. A high EXPY-core figure means that the export sector producing “core” products has high-valued products. In general, countries at a higher level of development have a higher export sophistication. Figure 4.2 shows India being much ahead of other South Asian countries in core export sophistication. Bangladesh and Nepal are below other South Asian countries, but with pretty much the same income level, Nepal’s export sophistication of core products is much lower than that of Bangladesh.

“Open forest” provides a measure of the (expected) value of products that could be potentially exported with comparative advantage. It helps to figure out how far products currently not exported with comparative advantage are from the ones that are exported with comparative advantage and are within a nearby range of the existing production capacities

Figure 4.2 Export sophistication (core) in South Asia



Source: EXPY figures are sourced from Felipe *et al.* (2010) and GDP per capita (PPP constant 2005 international \$) from the World Development Indicators database. The GDP per capita figures are in natural logs. The EXPY figures are based on an analysis of export sophistication of 96 non-high income countries.

of an economy. It is easier to produce “nearby” products than products that are “far away” because the capabilities to produce similar but slightly differentiated products already exist in the economy. The low score of Bangladesh and Nepal (Figure 4.3, next page) indicates the fact that the industrial sector needs a revamping of its capabilities to produce goods that are sophisticated and are within a close range of each other’s capital and resource requirements. Easing supply-side constraints plays a crucial role in helping to upgrade the capabilities of countries to produce goods that are sophisticated and are close to (“nearby”) the goods that are already produced in

*The industrial sector needs a revamping of its capabilities to produce goods that are sophisticated and are within a close range of each other’s capital and resource requirements.*

Table 4.2 Industrial capabilities (N = 139)

Country	Industrial value addition	Business sophistication index		Innovation index		Technological readiness	
	(% of GDP) 2007	Rank	Score	Rank	Score	Rank	Score
Bangladesh	29	105	3.4	119	2.6	126	2.7
India	29	44	4.3	39	3.6	86	3.3
Nepal	17	132	3	137	2.3	134	2.5
Pakistan	27	79	3.7	75	3	109	2.9
Sri Lanka	30	39	4.4	40	3.6	84	3.4

Source: World Economic Forum, 2010, Global Competitiveness Report 2010–2011.

the economy. This also helps economies to undergo structural transformation.

#### 4.4 Geographical constraints

While LDCs with access to the sea such as Bangladesh are likely to perform better on the trade front, *ceteris paribus*, landlocked LDCs like Nepal located far from international or regional market centres tend to perform poorly in regional and international trade. A landmark study by Faye *et al.* (2004) shows that landlocked developing countries have not only been subject to, on an average, 9 percent higher transportation costs than their maritime counterparts, but they also trade, on an average, 50 percent less than the latter, due to their dependence on transit-providing countries. The study identifies four types of dependence: a) dependence on neighbours' infrastructure; b) dependence on sound cross-border political relations; c) dependence on neighbours' peace and stability; and d) dependence on neighbours' administrative practices (*ibid.*: 31) for landlocked countries to transport their goods.

Taking these dependency factors as the conceptual basis to analyse the situation

in the context of South Asian LDCs, Adhikari (2010) suggests that transit rights are more of a political issue than an economic issue, with the transit-providing country exercising power not only to dictate transit arrangements, but also to extract other concessions from the landlocked country. Gupta and Yang (2007: 401), for example, find that African RTAs in general have not generated the expected benefits for the landlocked countries in the region because their coastal neighbours have more often than not created administrative obstacles (customs procedures) besides physical ones (roadblocks) resulting in an excessively high cost of transit.

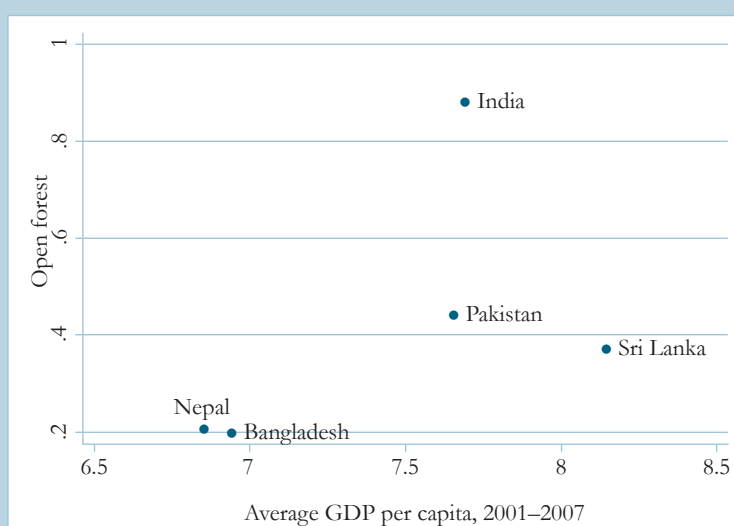
Adhikari (2010) shows that a similar situation prevails in South Asia, where Nepal is at the mercy of India, although Bhutan does not face such a problem because India allows Bhutanese transit trade to be conducted under the supervision of Bhutanese customs, yielding little administrative hassle (see Faye *et al.* 2004: 66). This is because Bhutan, according to a Bhutanese scholar, has "extraordinarily warm friendship" with its Southern neighbour (Choden 2004: 121), which is not necessarily the case for Nepal.

*The prospects for Nepal to enhance regional trade with countries other than India are impeded by the "security-first" mindset of Indian authorities.*

So much so that India does not even allow free and unfettered movement of goods between Nepal and Bangladesh, although Nepalese traders have to use a 35 km stretch of Indian territory to reach the Bangladeshi border. It is, therefore, no surprise that, as noted by Chaturvedi (2007: 29): "The 35 kilometers area between Phulbari in Bangladesh to Panitanki in Nepal is one of the most difficult territories which even require army support for protection purposes." This shows that even the prospects for Nepal to enhance regional trade with countries other than India are impeded by the "security-first" mindset of Indian authorities.

Landlocked countries have a little sense of respite. Although, as argued by Faye *et al.* (2004: 45), "there is a legal basis for rights of landlocked transit as outlined

Figure 4.3 Export potential in South Asia



Source: EXPY figures are sourced from Felipe *et al.* (2010) and GDP per capita (PPP constant 2005 international \$) from World Development Indicators database. The GDP per capita figures are in natural logs. The "open forest" figures are based on an analysis of export sophistication and export potential of 96 non-high income countries.



in Article 125 (1) of the United Nations Convention on the Law of the Sea” (United Nations 1982), this does not mean much as, “in practice, this right of access must be agreed upon with the transit neighbour (Article 125 (2) and (3)) and is determined by the relationship between the countries”. Moreover, Article V of the GATT also provides similar rights, but this has not been invoked so far probably due to conflicting interpretations of the provision (Adhikari 2010). Discussions on this issue are taking place at the ongoing Doha Round of trade negotiations under the broad rubric of trade facilitation. However, whether there will be any meaningful outcome on this will depend significantly on the final outcome of the Doha Development Agenda, which itself is in limbo.

#### 4.5 Governance

Any discussion on the provisioning of trade-related public goods remains incomplete without discussing the issue of market failure, which is defined in mainstream economics as a situation in which market, left to its own devices, will not produce Pareto-efficient outcomes. Market failure is mainly caused in four situations.

First, when there is information asymmetry between the buyer/consumer and the seller/provider, with the person possessing a higher level of information placed in a better bargaining position, which results in a sub-optimal outcome. Second, when there is market power, i.e., the supplier is in a position to unduly raise the price of goods/services without the fear of losing sales, the market does not provide an equilibrium solution. Third, when there is an externality, i.e., the impact of one person’s action on the well-being of a bystander, the market does nothing to change the behaviour of the former. Finally, when the goods/services in question are public in nature, which can be enjoyed by all even without paying for them, the market fails to generate sufficient incentives for the provisioning of such goods.

Public goods, as defined by Paul Samuelson (1954: 387), is one “which all enjoy in common in the sense that each individual’s consumption of such a good leads to no subtraction from any other individual’s consumption of that good.” This definition is extremely demanding and is only approximated by pure public goods, such as the national judicial system. In real life, however, it is difficult to find many examples of pure public goods (see, for example, Hudson and Jones 2005: 267; Morell 2009: 542).

The above definition is rather limited in the sense that it does not take into account the socio-political dimension with which to view the problem of market failure. A slightly broader definition of market failure, which has a developmental connotation, is provided by Kato *et al.* (1993). They define market failure as arising “when the goods and services deemed necessary by society cannot be easily or adequately provided through the dependence on only the free economic activities of private sectors motivated by profits” (p 28) (cited in UNCTAD 2009: 32).

Whichever definition we follow, it is well established that due to the non-excludable and non-rival character of public goods and the associated free-rider problem, the market or its principal agent, namely the private sector, is in general incapable of provisioning public goods (see, for example, Mankiw 2001: 226). However, it is also important to note that the statist notion of the provisioning of public goods is changing in developed countries, where a purely private modality or a public-private modality of provisioning are becoming increasingly popular (Desai 2003). Yet public goods provision, argue Besley and Ghatak (2005), is one of the main justifications for large-scale government in the North and one of the main rationales for strengthening state structures in the developing world.

The salience of governance in the provisioning of trade-related public goods cannot, therefore, be overemphasized.

*Whether there will be any meaningful outcome on trade facilitation negotiations will depend significantly on the final outcome of the Doha Development Agenda.*

While it would be tempting to argue that better governance could lead to a better provisioning of public goods such as physical and human capital, it is difficult to establish causality because those countries that are well endowed with fiscal, material, technological and human resources are rich countries that can utilize these resources to make a better provisioning of public goods. The reverse is equally true, because poor countries have limited fiscal resources due to the limited development of their formal taxable sector coupled with political failure to collect taxes (see, for example Khan 2008: 128), such that they are unable to make enough investment in the provisioning of these goods. After all, as Kettl (1992:1) argues, “nearly everything we want government to do requires money” (cited in Andrews 2010: 11). As countries grow richer, they increase their spending on public goods, because they have the means to do so.

*It is difficult to establish causality between governance and provisioning of public goods.*

The problem is not merely that of resources, but also that of how efficiently they are utilized. Intuitively, it is possible to argue that countries which have “good governance” utilize their resources more optimally than those with a chequered governance record. Before we discuss this issue, it is necessary to first define “governance”, not least because this is a contested concept. We adopt the definition provided by Brinkerhoff and Goldsmith (2005: 200), according to which governance is broadly understood as “the processes through which individuals and state officials interact to express their interests, exercise their rights and obligations, work out their differences, and cooperate to *produce public goods and services*” (emphasis added), as done by UNCTAD (2009:16). This definition is very close to the central argument being made in this paper, not least because it visualizes the conflict and cooperation inherent in the process of producing (or provisioning) public goods and services.

The concept of “good governance” is even more contested than the term “governance” itself, not least because

the “goodness” of governance is value-laden and necessarily subjective by definition. At the most basic level, as argued by UNCTAD (2009: 16): “some base the goodness of governance on outcomes (for example, is governance effective for economic development?), whilst others base the goodness of governance on procedure (for example, is governance transparent and accountable?)”. While both processes and outcomes are important to judge the relative superiority of governance, we do not make any attempt to define this terminology.

Since the “governance” agenda, particularly the ones promoted by international financial institutions such as the World Bank, can include a myriad of issues,<sup>17</sup> it would be impossible to discuss all of them in this paper. Here, we focus on three key gaps in governance that are impeding the prospects of the provisioning of trade-related public goods. They are: integrity gap; institutional gap; and implementation gap.

#### 4.5.1 Integrity gap

Among the governance issues that are discussed in the literature, corruption is the major problem afflicting South Asian countries in general and the LDCs such as Bangladesh and Nepal in particular. According to TI (2009), political instability, lawlessness, nepotism and lack of accountability coupled with apathy of politicians and society towards creating a robust mechanism to check corruption have contributed to increased corruption in Nepal. We are of the view that all this boils down to the lack of a single factor—integrity, which, following Fijnaut and Hubert (2002: 3), can be defined as the “quality of acting in accordance with the moral values, norms and rules accepted by body politic and the public.”

While it can be argued that some element of avarice for money and power, and therefore temptation for corruption, exists in almost every individual, it is the integrity of the individual that prevents him/her from indulging in corruption.

Viewed in this light, corruption is but one major form of violation of integrity. This is probably one of the reasons why a large body of literature on corruption focuses on improving the system of integrity as a means to curb corruption (see, for example, Staphenurst and Kpundesh 1999; Fijnaut and Hubert 2002).

In order to better understand the pathology of corruption, it would be useful to analyse the relative rankings and scores of the countries in the Corruption Perception Index (CPI) prepared by Transparency International (TI) for South Asian countries, including Bangladesh and Nepal, since 2001 (Table 4.3). We need to emphasize that these rankings are only indicative, and do not capture the exact situation of corruption in the countries due to conceptual and methodological problems.

It is impossible to find a corruption-free country because some element of corruption exists even in Scandinavian countries—which have consistently been ranked either as the “cleanest” country or at least figured among the top 10 least-corrupt countries in every ranking.<sup>18</sup> If that was not the case, they would have received a score of 10, which is the highest attainable score. However, any country receiving a score below 5 is considered to have a relatively high level of corruption. South Asian countries have never managed to cross this threshold (with the exception of Bhutan, which

has been in CPI rankings since 2007<sup>19</sup> and has secured a score of 5).

A closer look at Table 4.3 suggests that Bangladesh was perceived as being the most corrupt country not only in South Asia but the entire world from 2001 to 2005. Although the ranking for 2002 is not included in the table, in 2002 Bangladesh was the sole country in South Asia that ranked the lowest among 102 countries that were included in the list (TI 2002). In 2004, it shared the final spot with Haiti among the 146 countries included in the list (TI 2004). Nepal, which was included in the CPI in 2005, had a score of 2.5 in both 2005 and 2007, and had a better ranking than Afghanistan, Bangladesh and Pakistan in both the years. But it slipped to an abysmally low level in 2009 as the second most corrupt country, after Afghanistan, in the region. This is because while Bangladesh and Pakistan have managed to improve their scores of late, Nepal’s score has further deteriorated (Table 4.3).

Another measure of corruption is the Control of Corruption indicator of the World Governance Indicators (WGI), capturing “perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interests” (Kaufmann *et al.* 2009: 6). Although intuitively “control of corruption” should mean the extent to which a country is

*South Asian countries have relatively high levels of corruption.*

**Table 4.3** Corruption Perception Index of South Asian countries, 2001–2009

Country	2001		2003		2005		2007		2009	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Afghanistan	-	-	-	-	117	2.5	172	1.8	179	1.3
Bangladesh	91	0.4	133	1.3	158	1.7	162	2	139	2.4
Bhutan	-	-	-	-	-	-	46	5	49	5
India	71	2.7	83	2.8	88	3.9	72	3.5	84	3.4
Maldives	-	-	-	-	-	-	84	3.3	130	2.5
Nepal	-	-	-	-	117	2.5	131	2.5	143	2.3
Pakistan	79	2.3	92	2.5	144	2.1	138	2.4	139	2.4
Sri Lanka	-	-	66	3.4	78	3.2	94	3.2	97	3.1
No. of countries ranked	91		133		159		179		180	

Source: Transparency International, *Corruption Perception Survey (various issues)*.

endowed with resources, expertise, institutions and political will, among others, to control corruption, the elements that this measure tries to capture suggest that this nomenclature is a misnomer. However, deliberating on that issue is not our purpose. Re-emphasizing that the same caveats apply to these indicators as the CPI discussed above, due to their inherent limitations,<sup>20</sup> we now turn to analyse the data provided in Table 4.4.

*Corruption indices and estimates must be viewed with caution.*

Recognizing the data limitations, particularly the relatively large margin of error in the corruption estimates, the WGI does not provide absolute rankings of countries, unlike the CPI. It only provides percentile ranks to countries on the basis of their score. Percentile ranks indicate the percentage of countries worldwide that rate below the selected country. Higher values thus indicate better ratings on control of corruption (World Bank Institute 2009). In that respect, it is certainly less misleading than the CPI. The Control of Corruption index provides estimates on a scale of -2.5 (most corrupt) to 2.5 (least corrupt), with countries having negative score regarded as having a relatively higher level of corruption—a “watch list” of a sort. It can be observed from Table 4.4 that Bhutan is the only country in the region to have had positive estimates between 2002 and 2008, which also correspond to the CPI score discussed above, at least for the pe-

riod in which Bhutan was included in the CPI list. Other countries in the region have negative estimates, and their positions have oscillated quite a bit, albeit within the negative territory. While Bangladesh seems to have improved its estimate as well as percentile ranking since 2005, Nepal’s position in the index has been showing an erratic trend but moving downward, which is also similar to our analysis based on the CPI discussed above. If we take 2002 as the starting point, when Nepal had an estimate of -0.28, the estimate reached -0.68 in 2008 suggesting a deterioration in corruption estimates. In the case of Bangladesh, the estimate deteriorated from -1.08 in 2002 to -1.42 in 2004, but started improving thereafter to reach -1.10 in 2008, suggesting an improvement in the recent years. This is also similar to our analysis based on the CPI.

National and international struggles against corruption *a la* Fijnaut and Hubert (2002) are dependent on the quality of the national integrity system (rules, laws and organizations to curb corruption and safeguard national integrity). It is probably against this backdrop that the TI has initiated a National Integrity System assessment approach. This approach, according to the TI, “provides a framework which anti-corruption organisations can use to analyse both the extent and causes of corruption in a giv-

**Table 4.4** Control of corruption in South Asia, 2002–2008

	2002		2003		2004		2005		2006		2007		2008	
	PR	E	PR	E	PR	E	PR	E	PR	E	PR	E	PR	E
Afghanistan	1	-1.55	1	-1.62	2	-1.51	2	-1.50	3	-1.46	1	-1.53	1	-1.64
Bangladesh	10	-1.08	6	-1.27	4	-1.42	6	-1.31	5	-1.32	9	-1.08	11	-1.10
Bhutan	73	0.59	82	0.93	78	0.82	79	0.88	79	0.91	79	0.92	75	0.72
India	41	-0.44	45	-0.35	46	-0.34	46	-0.34	52	-0.23	47	-0.39	44	-0.37
Maldives	54	-0.08	58	0.09	54	-0.13	47	-0.31	38	-0.51	21	-0.83	33	-0.60
Nepal	49	-0.28	52	-0.17	31	-0.62	27	-0.75	29	-0.68	32	-0.64	29	-0.68
Pakistan	25	-0.81	29	-0.73	14	-1.05	17	-0.99	24	-0.76	22	-0.82	25	-0.77
Sri Lanka	51	-0.16	53	-0.17	53	-0.13	49	-0.27	55	-0.13	57	-0.10	54	-0.15
No. of countries	197		198		205		205		207		208		208	

PR = Percentile ranking; E = Estimates of control of corruption score.

Source: Kaufmann et al. (2009).

en country as well as the effectiveness of national anti-corruption efforts.<sup>21</sup> The structure, which is reproduced in Figure 4.4, is quite elaborate in the sense that it envisages the enmeshment of each section of society in promoting the national integrity system.

Although TI chapters seem to have been entrusted with the responsibility of preparing baseline reports and updating them at regular intervals, this does not seem to be happening. For example, the report for Bangladesh was prepared in 2003 and that for Nepal in 2001, but both of them have not been updated since. Although this is indeed a laudable effort on the part of the TI, such efforts are not likely to produce significant outcomes unless and until there is a national ownership of the programme.

#### 4.5.2 Institutional gap

Institutions are defined as “humanly devised constraints that structure political, economic and social interaction” (North 1991: 97). Literature has shown that the quality of institutions has a significant positive impact on international trade, although their interaction tends to be somewhat nuanced (Levchenko 2004), as well as on economic growth (see, for example, North 1991; Acemoglu, Johnson, and Robinson 2001; Rodrik and Subramanian 2003; Rodrik, Subramanian and Trebbi 2004). Douglass North (1991)—who along with Ronald Coase and others provided an institutional home to an entirely new discipline called New Institutional Economics in the early 1990s—asserts “institutions provide the incentive structure of an economy; as that structure evolves, it shapes the direction of economic change towards growth, stagnation or decline” (p 97).

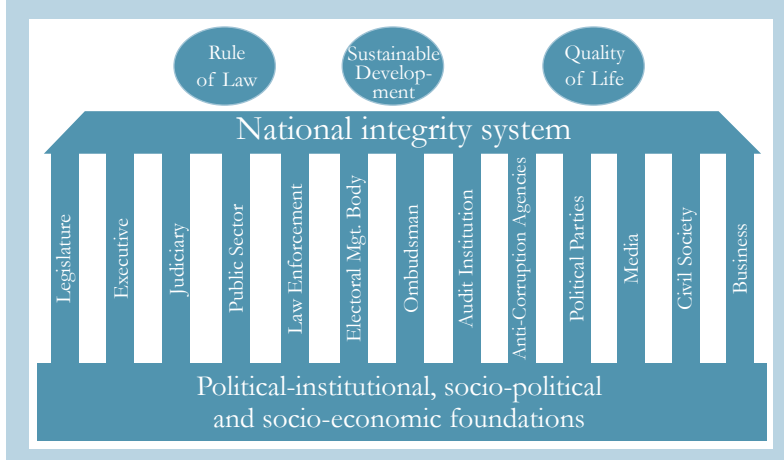
While no study has been conducted so far to ascertain the role of institutions in the provisioning of trade-related public goods, it is possible to visualize the role of institutions such as protection of property rights, mechanism for contract enforcement, the rule of law, po-

litical stability and regulatory quality in facilitating a better provisioning of such goods.<sup>22</sup> Following, Olson (1993), one can argue that political stability is a prerequisite for infrastructure development, setting aside a certain percentage of the national budget for human capital and making commitments to reform border procedures with a view to facilitating trade. To the extent that these institutions contribute to reduce uncertainty in exchange (hence transaction costs) for business and create an investment climate conducive to attracting private capital, they can help the public sector make optimum utilization of its scarce resources by focusing on areas where net social benefits are higher.

However, measuring institutions is an extremely difficult and highly delicate task due to two main reasons. First, it is necessary to measure both *de jure* and *de facto* institutions in order to know their contribution to a particular outcome, which is not always possible, because the latter measure tends to be highly subjective. Second, most institutional measures that exist at present are often too broad and fuzzy to contain meaningful information (Voigt 2009). However, despite these problems, due to time and resource constraints, which a thorough research using survey as a key methodological foundation will inevitably demand, we have to rely on existing sources of information,

*The quality of institutions has a significant positive impact on international trade.*

Figure 4.4 Structure of national integrity system



Source: [www.transparency.org/policy\\_research/nis](http://www.transparency.org/policy_research/nis)



with the expectation that they would at least provide us an indication of the quality of institutions in South Asia in general and the LDCs of the region in particular. In Table 4.5, we compare the institutional quality in South Asian LDCs with that in South Asian developing countries with the help of a set of indicators.

*South Asian countries have the lowest indicators in political stability and absence of violence.*

As is apparent from the table, South Asian countries have the lowest indicators in political stability and absence of violence, indicating, in the case of most countries in the region, the possibility of the unseating of governments through violent means as opposed to peaceful means. This means that the democratic credentials of these countries are not necessarily trustworthy. This problem cuts across the LDC-developing country divide in the region because countries such as Pakistan and Sri Lanka are closer in their estimates to Afghanistan (which has the worst estimates of all), and an LDC like Bhutan has the best estimate in terms of political stability. However, in other three estimates (Table 4.5, columns 2–4), the LDCs, other than Bhutan, generally have worse indicators than developing countries. Bangladesh and Nepal closely follow Afghanistan in all three indicators. Finally, the cost of contract enforcement, which we picked up from a different source to get a better sense of this measure of institutional quality and which can otherwise be considered

a sub-indicator of the rule of law, shows that Bangladesh has the worst indicator in the region in terms of the cost of contract enforcement. While contract enforcement in Bangladesh eats up 63.3 percent of the total claimed amount, Bhutan represents an extreme case with the best indicator not only in the region but in the entire world.

While reform could help narrow the institutional gap that has partly contributed to the sub-optimal provisioning of public goods, neglecting reform is tempting because institutions are notoriously difficult to change (Subramanian 2007). Moreover, political economy factors could prevent meaningful reform as it is often the case that powerful vested interests of political groups may slow, divert or even stop a desirable reform (Dinar, Balakrishnan and Wambia 1998). Fearful of such oppositions, governments in most developing countries and in particular the LDCs are inclined to favour the status quo.

#### 4.5.3 Implementation gap

The LDCs such as Bangladesh and Nepal have adopted several useful policies in the past—particularly in the area of the provisioning of infrastructure and human capital. While some of them, such as enrolment of girl children in primary schools got implemented and have shown promising results, other policies

**Table 4.5** Quality of institutions (estimates) in South Asia, 2008

Country	Political stability and absence of violence (1)	Government effectiveness (2)	Regulatory quality (3)	Rule of law (4)	Cost of contract enforcement (% of claim) (5)
<b>LDCs</b>					
Afghanistan	-2.64	-1.31	-1.58	-2.01	25
Bangladesh	-1.54	-0.77	-0.82	-0.7	63.3
Bhutan	0.89	0.11	-0.86	0.37	0.1
Maldives	-0.1	-0.35	-0.42	-0.24	16.5
Nepal	-1.69	-0.75	-0.66	-0.76	26.8
<b>Developing countries</b>					
India	-0.99	-0.03	-0.21	0.12	39.6
Pakistan	-2.61	-0.73	-0.47	-0.92	23.8
Sri Lanka	-2.04	-0.29	-0.28	-0.01	22.8

Indicators 1–4 are measured in units ranging from about -2.5 to 2.5 (best).

Source: Indicators 1–4: Kaufmann et al. (2009); and indicator 5: World Bank, 2009, *Doing Business Report 2010*.

do not get implemented at all or only get partially implemented. Implementation, which is defined by Sinclair (2001: 79) as “a process in which decisions or actions are directed toward putting policies into effect”, has emerged as a major challenge in the realm of public administration. There could be two reasons for this predicament. First, if a policy is not implemented, even after repeated attempts, it might be useful to check whether the policy itself was correct. If the policy is faulty, Pareto improvement can be achieved by changing the policy itself, which can be accomplished only if policy makers seriously look for alternate policy options. A second reason, which is the focus of this study, is that public officials do not simply implement the policies, either because the policies are top-down or externally driven and the public officials do not “own” them or because they do not have the “capacity” to implement the policies.

Lack of policy ownership may be due to two main reasons, which takes place at two levels. First, if the policy is externally imposed, for example, by multilateral lending institutions or bilateral donors, without the policy makers really believing that the policy is in their best national interest, they do not own such policies. The lack of commitment to policy at the political level is also reflected at the bureaucratic level, which leads to lax implementation or non-implementation of the same. Second, even when the policy is home grown, if it is top-down and the implementers—those at the middle of the bureaucratic hierarchy and those dealing with outsiders and whom Lispky (1980) refers to as “street-level bureaucrats”—are not involved in the policy formulation process, they are not likely to own the policy. The latter may result not only simply due to the “ego” problem of the implementers but also because lack of consultation could result in lack of proper understanding of the objective the policy is trying to achieve.

Scant literature is available on the lack of ownership resulting in the under-provi-

sioning of public goods in the three areas this study focuses on in the context of Bangladesh and Nepal. However, one such study, which is remotely related to the present study because of its falling under the rubric of “human capital”, is available in the context of Bangladesh. The study, which empirically examines the implementation record of the World Bank-sponsored Health and Population Sector Programme (HPSP 1998–2003), comes to the conclusion that due to lack of policy ownership in terms of origin of the vision, stakeholders’ consultation and conceptualization of the programme, the “family planning programme suffered and the overall quality of the services at the health centres deteriorated” (Osman 2005: 34).

The study also shows how the level of ownership gap discussed above contributed to the failure of the programme. First, at the national level there was a lack of ownership among the policy makers of the idea—which was provided by the World Bank, although the former participated actively in the consultation process leading to the finalization of the programme. Second, the street-level bureaucrats (such as field-level managers and workers), who were neither consulted in the policy formulation process, nor sufficiently trained to adapt to the changes that the programme envisaged, did not feel obliged to give their best to the programme. The result was an utter lack of coordination and confusion in terms of modalities and the deliverables expected, which led to the debacle (*ibid.*).

While the ownership deficit is crucial in explaining the policy-implementation gap, it is only a part of the story. Another major problem that contributes to widening the gap between policy and implementation is the capacity constraint, faced by not only the implementing bureaucrats but also the policy makers. It so happens, in some extreme cases, that some bureaucrats trying to implement policies in good faith create more hurdles to the private sector than facilitate its activities.

*When policy formulation is top-down, there is unlikely to be broad ownership of the policy.*



Whether due to lack of education, skill, awareness or motivation or some other reasons, there is a discernible capacity gap among government officials, who are tasked with implementing policies and programmes. While some blame it on the aptitude of public officials, others are of the view that it is the mindset of public officials that is creating a mental block against ensuring a timely implementation of projects and programmes. Yet others are of the view that government officials are not sufficiently rewarded and therefore not motivated to discharge their responsibilities.

It is equally plausible that lack of professionalism among public officials, which is mainly due to political interference and lack of independence, could explain, in part, their capacity deficit. One of the astute critics of the system of governance in Nepal, Devendra Raj Pandey ascribes the declining efficacy of Nepal's bureaucracy to "mindless political interference and willing suspension of a sense of professionalism and personal dignity by the bureaucrats" (Pandey 2000: 111).

Lack of professionalism more often than not breeds indifference towards the contribution public officials are expected to make to discharge their responsibility. However, it is also argued that indifference could be due to the lack of a strict system of reward and punishment, which has atrophied public officials' incentives to perform to the best of their potential. Osborne and Gaebler (1992), for example, argue that the present system of governance, by design or default, has a propensity to reward under-performers. This could be one of the factors contributing to the indifference on the part of public officials.

Lack of skill could provide another plausible explanation for the capacity deficit. However, this may sound paradoxical because traditionally the civil service in South Asia is renowned for attracting brighter talents from the pool, although this has changed now due to the rise of the private sector and development

agencies, which are in a position to offer compensation packages and career prospects unmatched by the civil service.

However, it is difficult to judge without enough empirical evidence whether or not the skill deficit in the Bangladeshi and Nepalese bureaucracy is due to a faulty recruitment process, lack of on-the-job training opportunity, limited access to technology, apathy among civil servants to enhance their skill profiles, or, more controversially, as argued by Max Weber (1930), lack of protestant-like work ethics,<sup>23</sup> whereby religious values do not promote a result-oriented work culture. These issues are beyond the scope of this paper but could be a topic for further research for researchers and practitioners in public administration or public policy disciplines.

Another reason for the presumed capacity deficit, particularly among the street-level bureaucrats, could be a lack of clarity about their responsibilities (in other words, what is expected of them) in general. Most government offices do not have a system of providing unambiguous terms of reference to bureaucrats, and they are expected to perform whatever is asked by their superiors. This is further aggravated by a lack of clear-cut instructions from politicians or higher level bureaucrats, who have to literally work by "feeling the pulses" of their masters.

Finally, it is hardly plausible for the Bangladeshi and Nepalese bureaucracy to remain immune to the disease of frequent transfer of staff, which has infected developing-country bureaucracy in general. While responding to the questionnaire during the process of the preparation of Aid for Trade Review Report, Bangladesh, for example, admitted that frequent transfer of employees is a major problem for trade expansion (OECD/WTO 2009a).

Similarly, in the case of Nepal, donors have often complained that frequent transfer of staff was one of the reasons for the ineffective utilization of

*There is a discernible capacity gap among government officials, who are tasked with implementing policies and programmes.*

aid resources (see, for example, MoF/N 2007; OECD 2008). Frequent and often abrupt transfer of staff leads to lack of specialization because the skill acquired, for instance, to provide advice to farmers on pig rearing in the ministry of agriculture may be irrelevant in conducting trade policy analysis at the ministry of

commerce or implementing a digital signature project in the ministry of science and technology. Another major problem is the loss of institutional memory, which exacerbates the capacity deficit problem faced by the bureaucracy and affects the implementation of the projects and programmes designed by the government.

### Issues for discussion

- In what ways do the issues of production capacity, export competitiveness, geographical constraints and governance interact to exacerbate the supply-side constraints facing South Asian LDCs?
- Why is it necessary to understand the issue of governance while discussing about alleviating supply-side constraints?
- How can the transit rights of landlocked LDCs be effectively ensured to mitigate the geographical constraints stemming from landlockedness?

# Discussion on major binding constraints

## 5.1 Introduction

Although there are several supply-side constraints facing South Asian LDCs that impede the expansion of their trade, particularly exports, following Hausmann, Rodrik and Velasco (2006), we focus on three major binding constraints, identified by earlier studies, namely infrastructure, human capital and trade facilitation, and based on our own field research. In order to further narrow down the research and conduct an in-depth analysis of these constraints, only three areas—transport (within the infrastructure category), education (within the human capital category) and customs (within the trade facilitation category)—have been purposively selected. It must, however, be emphasized that the paper does not attempt to undermine the salience of other categories of constraints and other areas within those categories.

## 5.2 Infrastructure

Seamless transport, which is an essential component of improved trade logistics, is crucial for the South Asian region in general and the LDCs within it in particular, because it would, among others, contribute to reduced delivery time and trade costs, allow manufacturers to enter high-value market segments such as premium garments requiring shorter delivery cycles, enter entirely new markets such as high-value horticulture, and consolidate and expand the region's export potential in newer sectors such as the automotive sector (World Bank 2008: v). From the perspective of regional trade,

a sound transport infrastructure facilitates regional connectivity through the free flow of goods and factors across borders allowing countries to benefit from a better allocation of resources. Transportation networks linking neighbouring countries help enlarge market size, particularly for the relatively small economies, and help them grow further through higher trade and production (see, for example, De 2009).

Improved transport infrastructure can also contribute to economic growth, with the effect of crowding in private capital, both of which are necessary for achieving a higher level of productivity (Khadaroo and Seetanah 2008: 257). Since Rodrik (2004) has established that economic growth can have a powerful effect on trade expansion (the so-called reverse causality), it follows that investment in transport infrastructure can help create a virtuous circle of increased trade, increased productivity and competitiveness, increased investment, increased economic growth and again increased trade.

A study conducted by Francois and Manchin (2007) analysed the impact of institutions and infrastructure on trade and suggested that transport infrastructure matters significantly not only to determine the probability of trade occurring but also the trade volumes between various pairs of countries (p 17). The study also finds that variations in basic transportation are much more important at low income levels in explaining variations in trade performance than at

*Improved transport infrastructure can contribute to economic growth, with the effect of crowding in private capital.*

higher income levels (*ibid.*). This latter finding is particularly relevant for LDCs such as Bangladesh and Nepal because both the countries fall in the lowest income quintile.

The above findings are consistent with an earlier finding of Bougheas *et al.* (1999), which, based on the analysis of the effects of infrastructure on trade through its influence on transport costs for a pair of countries making optimal investment in infrastructure, predict a positive relationship between the level of infrastructure and the volume of trade. Similarly, underscoring the significance of reduced transportation costs for trade flows, De (2007: 296) shows that a reduction in tariff and transportation costs by 10 percent each would increase bilateral trade by about 1.6 percent and 5.7 percent, respectively. He, therefore, suggests that the propensity to increase trade will be higher with a reduction in transportation costs, rather than with tariff reduction.

Despite the overwhelming significance of transport infrastructure for reducing trade costs and increasing trade, the quality of transport infrastructure in South Asia in general leaves much to be

desired, in part reflecting the low priority accorded to its improvement in the region. The LDCs in the region are known for substandard infrastructural conditions. A comparison of their infrastructure with that of developing countries in the region as well as countries outside the region, such as China, reveals that. Table 5.1 presents the availability and quality of transport infrastructure in South Asia and China, as identified by the Global Enabling Trade Report 2010 (WEF 2010).

Due to the heterogeneous geography of South Asian LDCs, it would not be possible to analyse their efficiency in the transport of goods within a single framework. While the Maldives being an island country is highly dependent on water transport for the movement of goods, three landlocked countries have to rely exclusively on surface transport for their regional as well as international trade. Bangladesh offers a unique example among South Asian LDCs—being a coastal country, it has access to the sea, but it also excessively relies on its road network for the transportation of goods. The analysis presented below focuses on one major mode of transport

*The quality of transport infrastructure in South Asia in general leaves much to be desired, in part reflecting the low priority accorded to its improvement.*

**Table 5.1** Availability and quality of transport infrastructure

	Bangladesh		China		India		Nepal		Pakistan		Sri Lanka	
	R	S	R	S	R	S	R	S	R	S	R	S
Transport infrastructure (overall)	120	2.6	57	4.3	78	3.8	91	3.5	72	3.9	62	4.2
Airport density, number per million population	125	0.5	117	0.1	122	0.1	62	0.6	108	0.2	123	0.1
Trans-shipment connectivity index, 0–100 (best)	92	53.9	10	91.9	18	81.5	-	-	31	75.6	23	78.4
Paved roads, % of total	113	9.5	45	70.7	66	47.4	59	56.9	50	65.4	36	81.0
Quality of air transport infrastructure, 1–7 (best)	110	3.4	75	4.3	60	4.7	102	3.5	71	4.5	59	4.8
Quality of railroad infrastructure, 1–7 (best)	66	2.3	27	4.1	20	4.5	120	1.2	52	3.1	44	3.4
Quality of roads, 1–7 (best)	89	2.9	47	4.2	83	3.1	119	2.1	61	3.7	56	3.9
Quality of port infrastructure, 1–7 (best)	106	3.0	57	4.3	85	3.5	112	2.8	68	4.0	39	4.8

R = Rank; S = Score.

Source: WEF (2010).

tation, namely road, without, however, underestimating the role of other modes of transport such as air and water in the promotion of trade.

Among the LDCs in the region, Bangladesh has an extensive road network, but it is much less paved compared to that in the developing countries in the region, and the level of all-weather access is substantially lower. According to the Global Enabling Trade Report (WEF 2010), the percentage of paved road in Bangladesh is only 9.5 percent. Nepal, a mountainous LDCs, has a less dense network and a much lower motorized access (World Bank 2008: 19), but it has a relatively high proportion (56.9 percent) of paved roads (Table 5.1).

However, most road networks in South Asian LDCs consist of one lane (3.5 metre width) or are intermediate (5.5 metre width) with poor pavement conditions, which limit vehicle speed and lengthen the duration of journey. These networks are not even capable of handling the existing road traffic, which is fairly high in these countries in proportion to their economic sizes. Unless significant quantitative and qualitative improvement takes place in these networks, they will remain grossly insufficient to meet the pressure of growing traffic. However, as things stand today, a combination of internal and external barriers to road transportation significantly adds to the costs of trading across the border in both Bangladesh and Nepal (see Box 5.1 for the barriers faced by Nepal).

Linking the road infrastructure of South Asian LDCs, among others, to the Asian highway—a project developed under the aegis of UNESCAP—connecting East Asia with Europe and passing through South Asia is a distinct possibility. The Asian highway has a proposed stretch of 141,000 km crisscrossing 32 countries in the network. However, South Asian countries, particularly the LDCs, have not been able to contribute much to this project (UNESCAP 2001).

### Box 5.1 Internal and external barriers to road transport: A case of Nepal

The Birgunj-Raxaul-Kolkata/Haldia road corridor is the main roadway being used in Nepal's trade with third countries. In Nepal, the road from Kathmandu (the capital city and main business centre) to Birgunj (a city on the border with India through which the bulk of Nepal's international trade passes, located 276 km from Kathmandu) has a 6–7 metre width, and the road condition in general is not bad. But a 36 km section, from Mungling to Narayanghat, faces frequent landslides. In addition, a number of bridges along the Hetauda-Pathalैया sector are only single lane and become a major constraint as traffic increases.

Congestion at the Birgunj border point is a frequent phenomenon as the customs yard for road-based cargo lacks adequate space. The adjoining city in India is Raxaul. In India, there is a two-lane road along the section between Raxaul and Kolkata/Haldia (1,047 km). According to the SAARC Regional Multimodal Transport Study, within India, bad road conditions, particularly in Bihar, reduce truck speed to 20 km per hour over an approximately 180 km section. This consequently adds one whole day to the journey time. The slower speed caused by poor road conditions and breakdowns of vehicles are also seen as a contributing factor to the pilferage and theft that take place along the transit route.

Problems are also found in the Motihari-Sagauli-Ramgarhwa-Raxaul section (around 50 km), the road leading to the check-post passing through the congested town of Raxaul, a major level crossing close to the check post, and a narrow two-lane bridge over the Sirsiya River that flows near the border. There is significant congestion at the border point at Raxaul. For example, parking space is not available at Raxaul for unloading goods for checking.

*Source: Rajkarnikar (2010: 11).*

At a time when even relatively better-endowed developing countries in the region such as India and Pakistan are severely constrained by finance, construction capacity and management capacity to expand and upgrade their road network,<sup>24</sup> it would not be possible for the LDCs to make drastic improvements in road transportation in the short run. However, with the right kind of policy environment aimed at attracting private sector investment and utilization of aid for trade resources (to be discussed in the next chapter), these countries should be in a position to implement road con-



struction projects based on needs assessment in the medium term.

Establishing corridor-based approaches for improving trade performance, such as a transport arrangement for intra-regional trade, would be essential to improve the efficiency of regional transport and to reduce trade costs (Sadiq and Ghani 2010: 61). Realizing this need, 10 road corridors have been identified by the SRMTS. All the corridors include at least one LDC of the region, with three such corridors involving two LDCs of the region.<sup>25</sup> However, there are several physical and non-physical barriers to developing these corridors (Rahmatullah 2010).

Among physical barriers, most of the roads identified by the study are of poor quality, having a narrow lane (3.5–5.5 metres) and/or poor surface conditions (*ibid.*). Further, several border posts within these corridors lack basic physical infrastructure such as parking facilities, immigration and customs offices, baggage-scanning equipments, telephone, warehousing, and facilities for the use of electronic data interchange and information technology (*ibid.*).

The most crucial non-physical barrier is found to be the lack of a bilateral transport agreement to facilitate an uninterrupted movement of goods and vehicles across the borders (*ibid.*). Restrictions on transport border crossings are a major constraint to global and intra-regional trade in South Asia. Removing these restrictions would boost trade within South Asia as well as lower costs for international trade in general, as landlocked countries and sub-regions would benefit from access to the closest ports (Sadiq and Ghani 2010: 61). Currently, efforts to improve transport networks are being pursued in a fragmented manner, and where cross-border issues are involved, little cooperation exists (*ibid.*). However, as trade volume increases and so does the pressure to remain competitive in the global market, lobbying efforts from the private sector and civil society

will likely compel politicians to think in a more pragmatic manner than they currently do.

### 5.3 Human capital

Solow's (1956) model of economic growth, which did not take into account the role of human capital, emphasized the role of technology in economic growth with the assumption of a production function with constant returns to scale. Gary Becker's seminal contribution on human capital investment, which he viewed as "activities that influence future real income of people through the imbedding of resources in people" (Becker 1962: 9), thereby contributing to economic growth, has its roots in the classical political economy literature of liberal as well as economic nationalist preoccupations.

The contribution of human capital to economic growth was largely ignored in the neoclassical literature until the course was corrected by the endogenous growth theory, which is credited to Paul Romer (1990). Viewing knowledge as a part of capital in a broader sense, which may have spillover impacts in the aggregate, Romer argues that production processes can attain increasing returns to scale, provided there is adequate investment in human capital. Subsequent empirical studies as documented in Siqqiqui (2007) have found a positive correlation between investment in human capital and growth in per capita income (Barro 1991); real GDP growth (Mankiw, Romer and Weil 1992; Levine and Renelt 1992); and productivity growth (Jorgensen and Fraumeni 1992; Enlander and Gurney 1994).

Most of these studies have not focused on the role of human capital in promoting international trade, particularly exports, although we know trade can potentially contribute to economic growth. Among the studies cited above, those by Jorgensen and Fraumeni (1992) and Enlander and Gurney (1994) are closer to our assumption that investment in human capital promotes exports because

*The most crucial non-physical barrier is the lack of a bilateral transport agreement to facilitate an uninterrupted movement of goods and vehicles across the borders.*

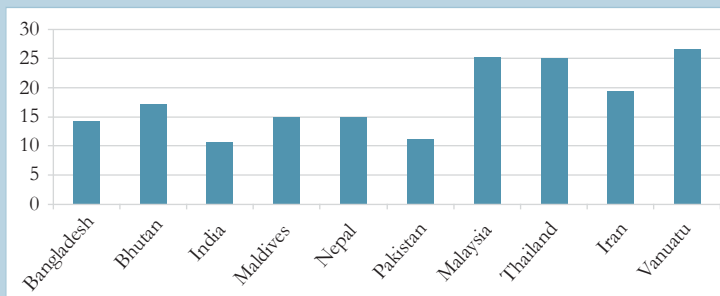
they look at human capital issues from the angle of competitiveness. While there are several components of human capital that have a bearing on enhanced productivity as well as prospects for trade expansion, for the purpose of this paper, we will only focus on one component of human capital, namely education.

South Asian countries in general, unlike Southeast Asian countries, have made limited investment in human capital, particularly in education and skill development. The problem is particularly severe in the case of the LDCs, as can be seen from Figure 5.1, which shows public expenditure on education as a percentage of total government expenditure in a selected group of Asia-Pacific developing countries, including those from South Asia. The figure does not include numbers for Afghanistan (an LDC) and Sri Lanka (a developing country) from the region due to the absence of data, and we must admit that the lack of these data slightly distorts the picture, not least because these two countries represent two different spectrum in the continuum—with Sri Lanka having the second best educational attainment in South Asia and Afghanistan, as it stands now, having the worst educational indicators in the region.<sup>26</sup>

One can make the following observations from the figure. First, the share of public expenditure on education is generally low in South Asia, as compared to other countries in the Asia-Pacific region. Second, within South Asia, from whatever data is available, the LDCs seem to spend relatively more than developing countries on education.

At the level of outcome, which is a more important indicator of countries' performance on the human capital front, the LDCs in South Asia lag not only behind other countries in the region but also in the entire Asia-Pacific region. The Education for All Development Index (EDI) published by the United Nations Educational, Scientific and Cultural Organization (UNESCO)<sup>27</sup>, which is probably the

Figure 5.1 Public expenditure on education as % of total government expenditure, 2001–2007



Source: UNDP (2009).

best available indicator ranking countries in terms of the progress they have made towards achieving the objective of “Education for All” (EFA), shows South Asian LDCs such as Bangladesh and Nepal at the bottom of the index (Table 5.2, next page). Although these countries have slightly better indicators than Pakistan, it should not come as a surprise given the historically low level of educational attainment in the latter, as explained above.

As Table 5.2 shows data for a point of time (year 2007), it does not provide any indication on the extent of progress these countries have been able to achieve on their EFA objective. In order to see the progress these countries have made (or lack of it), we need to compare the figures in Table 5.2 with those for previous years. UNESCO’s EDI has values for 1999 (one year before the adoption of the EFA declaration), 2006 and 2007. However, not all the six countries listed in Table 5.2 have data for both pre- and post-EFA declaration periods. This is a somewhat limiting factor for our analysis. For example, complete figures are available for only one country, Nepal. While Nepal had an EDI of 0.603 in 1999, it increased to 0.704 in 2007, thereby posting an increase of 16.7 percent in the eight years. However, figures for 2006 and 2007 are available for all the six countries, as shown in Table 5.3.

The table indicates that except for Bhutan, all the countries in South Asia re-

*On the human capital front, South Asian LDCs lag not only behind other countries in the region but also in the entire Asia-Pacific region.*



**Table 5.2** EDI for South Asian countries, 2007

Countries	Ranking according to level of EDI	EDI	Primary ad-justed NER <sup>28</sup>	Adult literacy	Gender-specific EFA Index	Survival rate to grade 5
Maldives	58	0.957	0.970	0.970	0.966	0.921
Bhutan	100	0.795	0.884	0.528	0.836	0.932
India	105	0.775	0.943	0.660	0.841	0.658
Bangladesh	112	0.718	0.896	0.535	0.895	0.548
Nepal	115	0.704	0.800	0.565	0.835	0.616
Pakistan	117	0.651	0.656	0.542	0.708	0.697

Source: UNESCO (2010).

*A low level of educational attainment not only locks workers in low-skill jobs but also deprives them of taking advantage of subsequent opportunities.*

gressed in 2007 compared to 2006, and the decline is severe for two LDCs, namely Bangladesh and Nepal. Both the countries have faltered in the area of survival rate to grade 5, indicating huge drop-out rates. For example, in Bangladesh, according to an earlier study, 60 percent of poor adolescents complete the first grade, but only 36 percent survive upto the fifth grade (Siddiqui 2007: 184).

What is clear from the table is that it is relatively easier to increase the enrolment rate of children in the primary school, but it is difficult to prevent children from dropping out of school. To provide some policy tool to address this problem, it is first necessary to understand the factors affecting educational attainment in developing countries in general and the LDCs in particular (Box 5.2).

While most of the relevant literature highlights the salience of on-the-job training for economic growth (see, for example, Becker 1962; Mincer 1962), indirectly underestimating the significance of general education, McMahon *et al.* (1992: 182) argue: “general education is more broad and basic in nature, enhancing individuals’ ability to learn on the job, to receive and benefit from further on-the-job training and therefore to adapt to future career changes and technical change” (cited in Cörvers 1999: 45). Thus, a low level of educational attainment not only locks workers in low-skill jobs but also deprives them of taking advantage of subsequent opportunities. Because of the low level of education of the workforce coupled with subsequent impediments to skill enhancement,<sup>29</sup> South Asian LDCs are generally locked into the production of basic items, with

**Table 5.3** Change in EDI between 2006 and 2007 for South Asian countries

Countries	EDI		Change in EDI, 2006–2007 (% in relative terms)	Change in EDI components, 2006–2007 (% in relative terms)			
	2006	2007		Primary ad-justed NER	Adult literacy rate	Gender-specific index	Survival rate to grade 5
Maldives	0.959	0.957	-0.2	-1.0	0.1	0.0	0.0
Bhutan	0.777	0.795	2.4	10.7	-2.8	0.4	0.0
India	0.794	0.775	-2.4	-1.9	1.2	0.8	-9.9
Bangladesh	0.753	0.718	-4.5	-2.8	1.9	-2.1	-15.7
Nepal	0.738	0.704	-4.7	-0.2	2.3	2.4	-21.6
Pakistan	0.652	0.651	-0.2	0.0	0.0	-0.8	0.0

Source: UNESCO (2010).

low value addition, in which competition tends to be the most intense.

For example, although compensation for South Asian garment workers is lower than for Chinese workers, the latter are far ahead in terms of productivity. According to the United States International Trade Center (USITC), as cited in Adhikari and Weeratunge (2007: 128), the average hourly compensation for Chinese garment workers in 2002 was US\$0.68, whereas their Bangladeshi counterparts received only US\$0.39. However, the report points out that the productivity level of textiles and clothing workers in Bangladesh are significantly lower than that of their Chinese counterparts.

The problem of skill deficit and generally low level of cognitive skills, which are by-products of generally low educational attainment, can in part be overcome by providing training opportunities to workers. However, the problem is that investment by both public and private sectors in the skill development of workers is extremely low in South Asia. For example, a report on the Bangladesh economy produced by the IMF (2007) cites the inadequate standard of training of workers in the garment industry as a major constraint on the country's potential to diversify into higher value-added textiles and clothing products or to move up the value chain ladder.

This is where the discussion on the terminology “poor-country goods” needs to be elevated to a higher level. Since these goods are mostly labour intensive and the skill requirement is not that demanding, it is easier for all poor countries to produce these goods. Enterprises in poor countries produce poor-country goods (such as agricultural commodities; basic manufacturing such as RMG) with limited investment and skills, but where international competition tends to be very fierce. When the pressure for competition necessitates reductions in cost, exporters have a propensity to reduce or freeze wages or the facilities provided

## Box 5.2 Factors affecting educational attainment

Other than the opportunity cost of education, factors that may influence demand for enrolment and educational attainment include parental education, number of siblings, gender of children, and religion. Similarly, a high level of maternal education translates into better resources for the family, which can be utilized for children's education. Likewise, poor health of parents or children may also be a deterrent to attending school. Lack of financial resources for doctor's care and medication prolongs absenteeism in schools and increases drop-out rates.

On the supply-side of education, proper infrastructure such as availability of quality teachers, school accessibility, and affordability of educational materials are necessary for increased availability of opportunities to attend schools. Similarly, poor quality of public schools, teacher absenteeism and lack of community support for schools are strong factors responsible for the high drop-out rates.

Several studies have assessed the determinants of schooling in developing countries, including in South Asia, and in particular India. They found that besides the opportunity costs associated with schooling, mid-day meal (Derez and Kingdon 2001); parental preferences (Pal 2003); family income (Duraisamy 2000); and school accessibility (Jayachandran 2002) have a strong influence on educational attainment. The World Development Report 2004, which lists five major factors affecting educational attainment in developing countries and the LDCs, corroborates the findings of these studies. The factors are: a) unaffordable access; b) dysfunctional schools; c) low client responsiveness; d) low technical quality of instructors; and e) stagnant productivity (see World Bank 2004).

*Source: Siddiqui (2007): 184–186.*

to the workers,<sup>30</sup> which could potentially result in a “race to the bottom” phenomenon. Since labour is always abundant in these countries (the so-called “reserve army” argument of Karl Marx), manufacturers/exporters could easily employ workers at ongoing or even reduced wages and facilities. This partly explains the reason for the reluctance of manufacturers and exporters to make investment in enhancing the skill profile of their workers.

As argued by Hausmann *et al.* (2006), one of the ways to move up the value chain ladder is to make use of technology. However, even if entrepreneurs in

*Investment by both public and private sectors in the skill development of workers is extremely low in South Asia.*

South Asian LDCs are willing to invest in technology acquisition, they may not find the requisite human capital to operate the same in the most productive manner. The technology spill-over that could make an industry-wide impact through technology diffusion is even severely constrained due to low level of human capital (Cörvers 1999). This is because, as Evenson and Westphal (1995: 2214) suggest, technology inherently involves tacit knowledge, “which can be only acquired through investment in learning” (cited in Hausmann and Rodrik (2003: 624)).<sup>31</sup>

A seminal contribution on the role of human capital in general and education in particular in the capacity of developing countries to acquire and adapt new technology by Jong-Wha Lee of Korea University shows a “strong complementary effects between technology imports and human capital on technology progress in developing countries” (Lee 2001: 127). Suggesting that access to advanced technologies alone is not enough for technological progress, he asserts that such access “should also be combined with the ability to absorb the advanced technology” (*ibid.*). However, these findings are not shared by Ganev (2005), who studied the link between education and total factor productivity (TFP) in seven transition economies, and found that the increased TFP is not related to educational attainment. While not disputing the theoretical justification of the link between the two variables, he ascribes his failure to establish the link to the way in which the data concerning educational attainment, and consequently human capital-augmented employment, have been constructed.<sup>32</sup>

#### 5.4 Trade facilitation

WTO defines trade facilitation as “the simplification and harmonisation of international trade procedures” covering the “activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in interna-

tional trade.”<sup>33</sup> Two distinct but inter-related developments that have taken place in the realm of international trade have contributed to an increased significance of trade facilitation.

First, burgeoning international and regional trade, coupled with new security requirements adopted globally in the aftermath of the 9/11 terrorist attack,<sup>34</sup> has placed increased demand on border and customs authorities. Given the cost involved in delayed delivery of goods, which is equivalent to 0.8 percent ad valorem duty per day as noted above, it is incumbent on the government to make every possible effort to ensure faster processing of consignments, in order to maintain the competitiveness of domestic enterprises.

Second, we are currently witnessing an era of rapid “integration of trade” with a concomitant “disintegration of production” (Feenstra 1998), with several production processes taking place in different locations to save costs and ensure quality. Initially the spatial distribution of the global production system was driven by labour cost arbitrage. Today, besides quality, the competitiveness of an operation within the global production system is a combined function of cost, time and reliability. As the opportunities of differentiation in terms of price diminish, competition within the global production system will be in terms of reliability and time. Thus, countries that ignore the issue of trade facilitation will do so at the cost of compromising their global competitiveness (Roy and Banerjee 2010: 111-112).

At this critical juncture, even methods that used to be satisfactory need to be rethought, while problems posed by inefficient methods are made worse (OECD 2005: 2). An inefficient border procedure, with paperwork of Kafkaesque proportions, not only disadvantages traders by raising their costs and lowering their competitiveness but also the government, which has to forgo revenue that could be derived from an efficient

*An inefficient border procedure not only reduces the competitiveness of traders, but also disadvantages the government.*

collection of trade taxes.<sup>35</sup> Although governments and traders are portrayed as the “frontline losers”, the ultimate price of these inefficient procedures must be paid by consumers and tax payers (*ibid.*). However, it is worth noting that those who advocate “paperless” trading as a means to reduce these avoidable trade costs seem to be making some impact with a number of countries moving in that direction.<sup>36</sup>

This realization has led WTO members to include negotiations on trade facilitation as part of the Doha Development Agenda. The mandate focuses on clarifying and improving relevant aspects of Articles V, VIII and X of the GATT with a view to further expediting the movement, release and clearance of goods, including goods in transit (WTO 2004). While Article V of the GATT deals with freedom of transit, Article VIII deals with fees and formalities connected with importation and exportation. Article X, which is more concerned about transparency in application of trade rules, deals with the publication and administration of trade regulations (WTO 1999).

Gains from improved trade facilitation measures are well documented. For example, as calculated by the Organisation for Economic Co-operation and Development (OECD), each 1 percent saving in trade-related transaction costs results in a benefit of US\$43 billion to the global economy (*ibid.*: 3). Wilson, Man and Otsuki (2005), evaluating the benefits of improved trade facilitation measures in four areas (port efficiency, customs environment, regulatory environment and service sector infrastructure), show that if such measures of the “below average” countries are improved “halfway” to the global average, world trade would increase by US\$377 billion (p 869). Interestingly, this study singles out South Asia as the region that has the greatest potential for both export and import growth, with export growth being more pronounced than import growth, after the effective implementation of trade facilitation measures (*ibid.*).

In order to gain a deeper insight into the potential benefits of trade facilitation reform in South Asia, Wilson and Otsuki (2007) employed a similar methodology applied in the above study and found that if South Asian trade facilitation measures were to improve to halfway the East Asian average, trade flow would increase by US\$36.3 billion. They further assert that 87 percent of the total increased trade flow could be attributed to the measures undertaken by South Asia and the remaining 13 percent of the trade increase would be as a result of the measures undertaken by trading partners outside the region.

Although South Asian countries, including the LDCs, are making some efforts to improve their trade facilitation systems and infrastructure, they are far from satisfactory, more so in the context of the LDCs. For example, the trading-across-borders indicators published in the World Bank’s Doing Business Report, which are one way of measuring trade facilitation indicators, show that South Asian LDCs lag behind the developing countries of the region on a number of counts (Table 5.4). Of particular note is the number of documents required for imports and exports, and the number of days taken for imports and exports. These are also reflected in the cost to import and export in the LDCs.

In the case of Nepal and Bhutan, the cost to import and export is very high—almost three times higher than the least costly exporter and importer in the region. Although the landlocked status of these countries is partly responsible for this, the lower quality of domestic infrastructure seems to have equally contributed to this.

Similarly, in terms of the Logistics Performance Index (LPI)—a composite index of various logistics and trade facilitation indicators—for 2010, Nepal ranks among the lowest, i.e., 147th out of the 155 countries assessed (Table 5.5). Nepal has not only slipped by 17 positions over the previous LPI ranking but also, for

*South Asian LDCs lag behind the developing countries of the region on a number of counts in trade facilitation.*

**Table 5.4** Trading-across-borders indicators for South Asian countries, 2009

Indicators	South Asian LDCs					South Asian DCs		
	AF	BD	BT	MV	NP	IN	PK	SL
Doing business—trading across borders (rank out of 183)	183	107	153	126	161	97	78	65
No. of documents required for exports	12	6	8	8	9	8	9	8
No. of days process required for exports	74	25	38	21	41	17	22	21
Cost to export (US\$ per container)	3,350	970	1,210	1,348	1,764	945	611	715
No. of documents required for imports	11	8	11	9	10	9	8	6
No. of days process required for imports	77	29	38	20	35	20	18	20
Cost to import (US\$ per container)	3,000	1,375	2,140	1,348	1,825	960	680	745

DCs=Developing countries; AF=Afghanistan; BD=Bangladesh; BT=Bhutan; MV=Maldives; NP=Nepal; IN=India; PK=Pakistan; SL=Sri Lanka.

Source: World Bank, 2009, *Doing Business Report 2010*.

the first time, has been surpassed even by Afghanistan. Bangladesh is an outlier in this ranking because it has substantially improved its performance in the recent past.

Although trade facilitation covers several areas, the focus of this paper is on customs, which is the entry point for imports as well as the exit point for exports. An efficient customs system could significantly help reduce trade transaction costs and enhance the competitiveness of enterprises thereby contributing to enhanced trade opportunities. For example, as estimated by the International Finance Corporation (2006: 11), given that the total trade transaction cost is estimated at 10 percent–15 percent of the total value of world trade,

and customs compliance costs are likely to be 5 percent–7 percent of that sum, programmes that could help reduce such costs by even 1–2 percentage points can have a huge positive net impact on world trade. For a region like South Asia, the imperatives of reducing customs-related costs assume greater salience because these costs are much higher compared to the global average mentioned above (Table 5.6).

The table shows that in South Asia, clearance and technical control account for a major chunk of trade costs, both for export and import.

Although on average in South Asia, these costs account for 19.5 percent (for export) and 16.6 (for import) of the total

*The imperative of reducing customs-related costs assumes greater salience because these costs are much higher compared to the global average.*

**Table 5.5** Logistics performance rankings of South Asian countries, 2010

Indicators	South Asian LDCs					South Asian DCs		
	AF	BD	BT	MV	NP	IN	PK	SL
Overall LPI	143	79	128	125	147	47	110	137
Customs	104	90	118	98	130	52	135	143
Infrastructure	139	72	141	111	143	47	120	138
International shipments	141	61	120	125	143	46	66	117
Logistics competence	141	96	127	117	143	40	120	142
Tracking and tracing	128	92	105	121	140	52	93	142
Timeliness	146	70	122	133	139	56	110	125

Acronyms as in Table 5.4.

Source: World Bank, 2010, *Logistics Performance Index*.



costs, the LDCs' averages are better than these, with the corresponding figures being 14.2 percent and 10.6 percent respectively. Although these costs are relatively higher for Afghanistan and Nepal among the LDCs, a rather puzzling facet revealed by Table 5.6 is that customs clearance and technical control costs as a percentage of total trade costs are the lowest in Bangladesh.

It appears from the table that traders in Pakistan and Sri Lanka suffer a disproportionate burden of customs-related costs, although the absolute costs are not unreasonably high while compared with the LDCs. This is because their total trade costs are among the lowest in the region. One of the plausible explanations for these countries incurring higher customs-related costs could be that they are spending relatively large amount of time and resources to overcome security threat—which is still a major problem in Pakistan (together with Afghanistan), although the problem has largely subsided in Sri Lanka.

While an efficient customs administration holds immense significance for importing firms, it is doubly important for exporting firms, in particular those that

are involved in manufactured exports and are participating in the global production network under the “slicing up the value chain” format. This is because these latter enterprises need an efficient customs system while importing their inputs (capital equipment, raw materials, parts and components and semi-processed goods), and merely having a swift export procedure is not enough for them.

Although the imperative to enhance/remain competitive in the global market has led governments all over the world to reform their customs system in order to make them capable of serving the interests of traders better, and South Asian LDCs are no exception to this trend, much remains to be done in the context of these countries. For example, a comprehensive study on sub-regional links in transportation and logistics (covering three LDCs in the region, namely Bangladesh, Bhutan and Nepal as well as the eastern part of India) conducted by the World Bank in 2001 shows that the customs clearance process adds significantly to the costs and delays in the movement of goods across borders, even though they represent a relatively small part of the logistics chain (Subramanian and Arnold 2001: 42).

*An efficient customs administration is doubly important for firms participating in global production networks.*

**Table 5.6** Time and costs of customs clearance burden in South Asian countries, 2010

	South Asian LDCs					South Asian DCs		
	AF	BD	BT	MV	NP	IN	PK	SL
<b>Export</b>								
Customs clearance and technical control (days)	8	3	3	4	4	2	3	3
Cost (US\$)	600	120	180	200	300	130	200	285
Share of customs expenses in total export costs (%)	15.52	12.18	14.87	12.90	15.30	12.32	32.73	39.86
<b>Import</b>								
Customs clearance and technical control (days)	7	3	4	4	5	4	2	2
Cost (US\$)	350	135	180	200	300	120	200	285
Share of customs expenses in total import costs	9.13	9.71	6.75	13.10	14.31	11.70	29.41	38.25

*Acronyms as in Table 5.4.*

*Source: Author's calculation based on World Bank (2010).*



The study reports that procedures are cumbersome and time-consuming, reflecting the conservative trade policies of the region as well as the revenue-focused mentality of customs officials. The high number of documents and approvals required for clearing goods—a major hindrance to seamless trade—continues till date, despite some improvements made in the recent past. Customs inspection and clearance takes up to 205 hours at some border points before the goods are eventually cleared. Table 5.7 shows the costs and time involved for customs inspection and clearance within the sub-region for various modes of transportation.

*Basic customs documents vary from country to country and must be prepared separately for each side of the border and submitted in multiple copies.*

Lack of harmonization of customs formalities and standardization of documents, besides lack of transparency of procedure and discretionary power given to customs officials, are the major problems which add to the time and costs of customs clearance. For example, the basic customs documents, such as transit, export and import declarations, vary from country to country and must be prepared separately for each side of the border and submitted in multiple copies (Subramanian and Arnold 2001: 43). That the study is a bit dated does not reduce the validity of its assertion because, despite some efforts at reforms, things have not been radically altered so as to make stakeholders feel a discernible difference in terms of reduction of trade costs in the region.

Customs systems around the world are being reformed and greater urgency is being felt to implement various measures to facilitate trade without, however, compromising other objectives of customs, namely national security, social protection and revenue generation. In 1999, the members of the World Customs Organization decided to revise the International Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention, which entered into force on 25 September 1974), with a view to providing an international framework for the facilitation of international trade.

The revised convention, which came into operation from 3 February 2006, envisages the extensive use of informed and practical risk assessment techniques, advanced cargo information process, recognition of authorized traders and cooperation among the customs administrations of different countries on the one hand and between customs and business on the other (WCO 2006). Besides these measures, information and communications technology (ICT) for customs facilitation and a single window system for the clearance of all border-related formalities are also being increasingly applied in several jurisdictions. Some of these measures, which are discussed extensively in the customs literature, are worth highlighting here.

Underscoring the significance of the use of ICT in customs, Lewis (2009) suggests that the automation of customs services and the ease in data sharing contribute to the simplification of customs procedures and improvement in the transparency and efficiency of customs services. Besides, ICT could potentially help reduce corruption by reducing direct interface between customs officials and traders, and is essential for introducing modern customs practices such as risk management, post-clearance audit and a single window system (p 5).

Similarly, Kieck (2010) and Doyle (2010) have emphasized the potential of co-

**Table 5.7** Costs/time for customs inspection/clearance

Mode	Commodity	US\$/ton	Time (hrs)
Regional			
Barge	Cement	0.07	24
Truck	Agricultural produce	16.24	30
Truck	Limestone	6.05	32.5
Truck/ferry	Yarn	6.55	205
International			
Truck	Wool	8.94	63
Truck	Tea	14.29	12
Truck	Carpet	27.00	20
Truck	Polypropylene	6.54	55
Truck	Cotton garment	5.94	36

Source: Subramanian and Arnold (2001: 43).

ordinated and/or collaborative border management to unlock trade opportunities. Better coordination through data and information sharing so as to advance the clearance process could itself reduce significant time and costs involved in border crossing. However, Kieck (2010), in particular, envisages the creation of a one-stop border post, where the customs office is physically located at one state, which provides access to the customs authorities of another state across the border to make use of facilities with a view to speeding up clearance. While such a proposal may have economic merit, it might invite several legal, administrative and political issues that need to be addressed upfront before embarking, if at all, on such a venture.

The idea of providing favourable treatment to authorized economic opera-

tors (AEOs)—those traders who have a proven track record of compliance with customs norms and have impeccable credentials—to reduce the burden on customs administration is not new. However, the idea of entering into an agreement with trading partners for the mutual recognition of AEOs is of recent origin.

Highlighting the contributions that this arrangement would make to facilitating legitimate trade, Aigner (2010) avers that there are significant challenges that need to be tackled. These include the way to determine the equivalence between two different sets of standards followed in countries to provide AEO status to select operators, exchange of relevant AEO data, and approaches followed in different jurisdictions as regards control and integrity.

*Greater urgency is being felt to implement trade facilitation measures without compromising other objectives of customs.*

### Issues for discussion

- To what extent have South Asian LDCs been able to address their binding constraints to exports?
- How can a regional approach to easing infrastructure constraints and improving trade facilitation be operationalized?
- Are there any political economy factors that impede the prospects of alleviating supply-side constraints with a given level of resources and capacity?

# National, regional and multilateral efforts

## 6.1 Introduction

Despite the persistence of governance problems discussed above, it would be unfair to dismiss the genuine efforts and contributions made by the governments and other stakeholders of Bangladesh and Nepal in the provisioning of trade-related public goods, which help alleviate the problem of supply-side constraints facing these countries. At the same time, realizing the marginalization of the LDCs in global and regional trade arrangements mainly due to the persistence of supply-side constraints, various efforts are underway at multilateral and regional levels to help these countries overcome these challenges. While multilateral initiatives initially in the form of trade-related technical assistance and now in the form of Aid for Trade (AfT) are well known, there are also several regional and sub-regional initiatives within South Asia aimed at tackling these challenges. This chapter discusses national initiatives, followed by regional and multilateral ones.

## 6.2 National initiatives

Governments in both Bangladesh and Nepal have designated infrastructure and education as top priority areas in their development strategies.<sup>37</sup> The reasons for according high priority to these areas may not necessarily be their potential contribution to trade but because of the overall development spin-offs they promise. On the contrary, while trade facilitation, particularly customs reform, is also a priority area of both governments,

there seems to be little realization of its contribution to development. However, what matters to our discussion is the fact that all three areas we are investigating are among the areas of high priority for the governments of both the countries.

### 6.2.1 Infrastructure

In the area of transport infrastructure, particularly road transport, Bangladesh has been making and is planning to make substantial investment. For example, as a part of its broader commitment to make qualitative as well as quantitative improvement in transport infrastructure, the Ministry of Finance has increased its allocation to this sector for fiscal year (FY) 2010/2011 by 26.6 percent compared to the previous FY to Taka 75.49 billion (approximately US\$1.1 billion) for the road, rail and bridge divisions of the Ministry of Communication (MoF/B 2010).

Similarly, Bangladesh plans to complete the construction of Padma Bridge by 2013, at an estimated cost of US\$2.4 billion (MoF/B 2010). The country has also reached the final stage in the process of obtaining funding from the Asian Development Bank (ADB) for the construction of the bridge (ADB 2010). Emphasizing the salience of the bridge for the socio-economic transformation of the country, Bangladesh Economic Review (MoF/B 2009: 15) states:

An integrated transportation network will be developed in Bangladesh with the implementation of the proposed Padma

*Governments in both Bangladesh and Nepal have designated infrastructure and education as top priority areas in their development strategies.*

Multipurpose Bridge at Mawa-Janjira. This bridge will bring significant socio-economic upliftment of the people of the south-western region and an estimated 1.2 percent increase of GDP growth rate of the country.

Similarly, in FY 2009/2010, the Government of Nepal not only designated the FY as the “Year of Road Construction” but also allocated a total of NPR 18.49 billion (about US\$256 million) for the construction, maintenance and upgradation of road, which represents an increase of 68.52 percent over the revised budget estimate of the previous FY (MoF/N 2009). According to the Revenue Secretary of the Ministry of Finance, the government also initiated the work to open the track for an 8-metre-wide and 1,700-to-1,800-km-long mid-hill road, which will connect the hill regions of Eastern and Western Nepal (Banskota 2010). As committed in the Budget Speech for FY 2009/2010, the government has also started the work on opening the track for a fast-track road joining the capital city of Kathmandu with Nijgadh along the Indian border (*ibid.*).

The actual road construction cost of the latter project is estimated at US\$1 billion by a recent report produced by the ADB (Nagarik Daily 2010). Since this figure is almost four times the government’s total budget for the road sector in FY 2009/2010, government resources alone would not be sufficient for the purpose. Therefore, the government has decided to follow the public-private partnership approach under the build, own, operate and transfer modality for the construction of the road (MoF/N 2009).

### 6.2.2 Human capital

Convinced of the role of education in poverty reduction and socio-economic development, the Government of Bangladesh is embarking on a serious reform programme in the education sector. Reform measures are aimed at the enhancement of education quality, depoliticization of educational institutions, and the provision of higher salaries for

teachers (MoF/B 2009). Allocations for the education sector are currently about 2.3 percent of GDP and 14 percent of total government expenditure.<sup>38</sup> Although a lion’s share of the budget allocated for the education sector (85 percent) is spent on the remuneration of teachers and staff, the government allocated a total budget of Taka 180 billion (roughly US\$2.6 billion) in the budget for FY 2010/2011, which is 13.5 percent higher than the previous year’s allocation (MoF/B 2010). The priority of the present government towards making a significant impact on education is reflected in the National Education Policy 2010, which was initiated to introduce a modern and job-oriented education system.

In keeping with the policy of “Education for All” as well as the commitment of the ruling party in its election manifesto to eliminate illiteracy by 2014, Bangladesh has made remarkable strides in advancing primary education. Gross and net enrolment rates have reached 97.6 percent and 90.8 percent respectively (*ibid.*: 173). Besides, with the help of the private sector and the non-governmental sector, the Government of Bangladesh has been making significant progress in secondary, tertiary and vocational education. For the overall development of its education sector, Bangladesh has been implementing various programmes aimed at increasing the enrolment and containing the drop-out rates of school-going children: instituting more decentralized decision-making processes, harmonization of curricula, provisioning mid-day meals for children, provisioning of financial assistance to the neo-literate, and targeted programmes for working children aged 10–14 years (*ibid.*: 174).

The Government of Nepal too has accorded high priority to the education sector, which can be gleaned from the Plan Documents (NPC/N 2007; 2010) and the budget allocated to this sector. In FY 2008/2009, the budget allocated for the education sector was NPR 45.87 billion (roughly US\$630 million), which was the single largest budget heading.

*With the help of the private sector and the non-governmental sector, the Government of Bangladesh has been making significant progress in secondary, tertiary and vocational education.*

While the overall spending of the government during that FY was only 77.6 percent of the total allocation, the education sector spending was one of the highest, with 98.58 percent of the allocated budget spent by the end of the FY (Shrestha 2010). Having implemented the Education for All Project between 2004 and 2009, the Government has been implementing the School Sector Reform Programme (SSRP 2009–2010) with the assistance of a consortium of development partners (Singh 2010).

In terms of achievements, the Flash Report 2009–2010 on Education for All released by the Department of Education of the Government of Nepal shows that the number of schools has reached 32,130 and the number of students enrolled in them has reached 7.576 million, with the net enrolment ratio (NER) reaching 94 percent (DoE/N 2009). Similarly, there has, on an average, been an addition of 10,000 classrooms every year and a mid-day meal programme is being implemented in 21 out of the 75 districts of the country (Banskota 2010). Although these achievements are worth taking note of, one should not lose sight of the fact that the survival rate of children to grade 5 is only 77.9 percent and there is a considerable disparity in the enrolment rates based on the economic strata of children. For example, only 51 percent of children in the official age group 5–9 years were enrolled in primary schools from the poorest households compared to 87 percent from the richest households (Singh 2010). Finally, it is also being argued that public schools tend to over-report the NER because of the incentive they receive under the Per Child Fund policy, which allocates teacher posts and funds in proportion to the number of students studying in schools (Rai 2010).

### 6.2.3 Trade facilitation

Trade facilitation had initially been a difficult area for reform partly because of the entrenched vested interest in favour of maintaining the *status quo* and partly

due to the cost implications. However, reform efforts got underway in many countries in the world in the latter half of the 2000s due to the pressure created by the publication of global rankings such as the Doing Business Indicators and the Logistics Performance Indicators, as well as the growing realization among policy makers about the gains to be had from improved trade facilitation. Customs reform, in particular, received further impetus after the adoption of and coming into force of the Revised Kyoto Convention, which is often referred to as the “Blueprint for Modern Customs Administration”, under the aegis of the World Customs Organization (Hossain, Deb and Al Amin 2009: 14).

Although the trade facilitation texts in the July Package (WTO 2004) as well as the Hong Kong Ministerial Conference of the WTO (WTO 2005) emphasize the salience of technical assistance, delay in the finalization of an agreement on trade facilitation meant that countries had no choice but to unilaterally move ahead with reforms, with or without donor support.

Customs reform in Bangladesh was initiated in earnest in 1992 when the Automated System for Customs Data (ASYCUDA) was introduced with the support of UNCTAD in the Dhaka Customs House (DCH), followed by its introduction at the Chittagong Customs House (CHC) (Hossain, Deb and Al Amin 2009). Moreover, the Customs Administration Modernization (CAM) Project—a part of the World Bank funded Bangladesh Export Diversification Programme—initiated in 1999, provided a further boost to the customs reform activities. Between 2001 and 2003, two major milestones were achieved—first, the successful completion of the ASYCUDA++ migration project designed to interface the ASYCUDA software with the computer system at five customs house in the country, and second, the development of a local Direct Traders Input facility enabling clearing and forwarding agents to fill bills of entry elec-

*There is a considerable disparity in the enrolment rates based on the economic strata of children.*



tronically on local premises (Hossain, Deb and Al Amin 2009; Bhattacharya and Hossain 2006). After a hiatus of nearly five years, a major customs reform drive has begun since 2008, which has resulted, among others, in the automation of CHC and DCH (Hossain, Deb and Al Amin 2009).

While Bangladesh has a long way to go before achieving a maximum level of efficiency, the above-mentioned achievements made by the Government of Bangladesh, whether on its own or with donors' support, should be seen in positive light. What is probably noteworthy is the role of the private sector in customs reform.

The automation of DCH, completed recently, is an epitome of a successful public-private partnership in which the Dhaka Chamber of Commerce and Industry, which signed a Memorandum of Understanding with DCH, took the major initiative. It engaged a private sector information technology firm, DataSoft Management Services, to implement the project. Following the automation of DCH, all the stakeholders will be brought on a single platform, which is aimed at enhancing the efficiency of DCH, the benefits of which are expected to be multifarious. According to DataSoft's website:

*It is anticipated that the implementation of the project may ensure doubling the [customs] revenue in two years, reducing cost of doing business by at least 70 percent, saving customs processing time by 80 percent, precise monitoring of international and domestic price, transparency and level playing field for business and better risk management.<sup>39</sup>*

If these results are achieved, even partially, that would provide a major boost to the efforts of the Government of Bangladesh to automate customs offices across the country, which would ultimately contribute to increased competitiveness of Bangladesh. Some of these progresses have already been reflected in the improved LPI of Bangladesh (see Table 5.5 in Chapter 5).

The Government of Nepal too has, albeit with considerable delay, woken up to the reality that customs reform represents the single major effort that could be undertaken to reduce the cost of trading across borders in a relatively short time span. What makes it even more attractive, provided the bureaucrats are proactive enough, is the fact that the results of custom reforms is not only visible but also measurable—a point forcefully made by Osborne and Gaebler (1992) in their famous book appropriately titled *Reinventing Government*. Although the impact of the reform of customs administration on development objectives such as economic growth could be admittedly difficult to measure, some intermediate indicators for measuring the success, or otherwise, of such reforms are readily available. Examples include the time taken for and the cost involved in customs clearance, the number of documents required for import and export, and an increase in government revenue.

As in many developing countries, the installation of ASYCUDA was the first effort towards customs reform in Nepal, which was initiated in 1996 as part of the three-year project implemented with the support of the ADB. The first operation of ASYCUDA commenced at the Tribhuvan International Airport—the only international airport in the country—in 1988 (see, Rajkarnikar 2009; Singh 2010: 272). It was subsequently rolled out in three major customs points with the support of the World Bank under the Multimodal Transit and Trade Facilitation Project (1998–2003). Later, the government extended this facility to other customs points through its own resources (Singh 2010: 272–3). However, due to constraints relating to human resources, capacity building and infrastructure, ASYCUDA is yet to achieve its full potential in Nepal (*ibid.*).

The Department of Customs (DoC) implemented a three-year Customs Reform Action Plan between 2003 and 2006, which was able to make some progress on the reform of the customs admin-

*The role of the private sector in customs reform is noteworthy in Bangladesh.*



istration. Examples include: speedier clearance of consignments (within two hours); trial run of the selectivity module; issuance of new customs procedures; formation of Trade Facilitation Committee; and initiation of a risk management system on a trial basis. However, a real impetus to customs reform has been provided by a four-year Customs Reform and Modernization Action Plan (DoC 2009). The major achievements in the first year of the operation of the Action Plan include:

- a) Operation of Broker Module, which allows traders or their agents to file customs declarations electronically, and, consequently, saves time taken by customs staff to manually input all the information into the computers of the DoC.
- b) Operation of Selectivity Module, which allows customs officials to be selective while conducting physical verification of consignments. Products requiring no physical verification can pass through the green channel, and products requiring selected physical verification can pass through the yellow channel. This allows customs officials to focus their attention on potentially high-risk categories of products, traders and sources of import, which must move through the red channel.
- c) Establishment of a post-clearance audit office as well as development of related procedures, which allow the office to audit those goods released by the customs on the ground that they were supposedly less risky but do possess some element of threat/risk.
- d) Installation of Wide Area Network to link up the customs headquarters with five major customs offices, which allows direct interface between these offices and provides real-time data and information.
- e) Initiation of a process to designate some traders as AEOs based on a thorough review of their credentials and allowing them faster clearance facilities. It is hoped that this will not

only save the time and resources for customs officials and well as traders but also potentially have a “domino effect” once the traders outside the AEO group see the benefits of inclusion in (as well as costs of exclusion from) the list.

Besides, the organization structure of the DoC has been altered to reflect its focus on trade facilitation. A separate section on customs reform and modernization has been created. At the same time, integrated check-posts are being developed in three major customs offices at the Indian border with the assistance of the Government of India.<sup>40</sup>

Noteworthy as these efforts are, the fact remains that a significant improvement is required to bring the customs administration in Nepal, as in the case of Bangladesh, on a par with the global average. In the context of the global average being constantly ratcheted up, which reduces the competitiveness of domestic traders largely due to others’ successes than their own failures, it is doubly important not only to continue to reform but to also speed up the same to catch up with competitors. However, it needs to be noted that an evaluation report recently prepared by an international organization, which is restricted to internal circulation, reveals that whatever reforms are being made currently are being achieved on an *ad hoc* basis, and certainly not as a result of planned, structured and coordinated efforts on the part of the DoC.<sup>41</sup>

### 6.3 Regional and sub-regional initiatives

There are several initiatives at regional and sub-regional levels aimed at overcoming supply-side constraints with a view to enhancing regional economic cooperation in South Asia. While it is beyond the scope of this paper to discuss each one of them, this section analyses the most important of them from the perspective of their potential contribution to overcoming the most binding constraints faced by the LDCs in the region.

*A significant improvement is required to bring the customs administration in Nepal and Bangladesh on a par with the global average.*

### 6.3.1 Regional initiatives

#### *Human capital*

When the SAARC Human Resources Development Centre was established in 1998, the objective of the Centre was confined to merely enhancing the “capacity of regional HRD [human resources development] functionaries, policy makers and trainers”.<sup>42</sup> Accordingly, most of the research, training and policy advocacy works of the Centre focused on building the capacity of government officials, with little contribution to building the capacity of managers and workers at the micro level. Although private-sector representatives also participated in some of the training programmes organized by the Centre, they comprised business leaders, representing the chambers of industry and commerce, rather than the manufacturers and traders themselves.

*There is little information available in the public domain on how effectively the regional Customs Action Plan is being implemented.*

The realization of the need to improve skills at the enterprise level with a view to “increasing the competitiveness, higher growth of outputs, exports, employment, and foreign investment”<sup>43</sup> has now led the Centre to commission a study on Productivity Growth and Human Resources Development in South Asia. The objectives of the study include:

- To evaluate the impact of human capital and productivity on economic growth of the SAARC member states.
- To assess the impact of human resource development on productivity.
- To identify the challenges and opportunities for improving productivity and human resource development in the SAARC member states (*ibid.*).

It is hoped that the findings of the study, as emphasized in the concept paper, will help contribute to formulating a Plan of Action for improving productivity and human resource development for sustained trade and economic growth in the SAARC member states.

#### *Trade facilitation*

In 1996, a Group on Customs Cooperation was set up and entrusted with a mandate, among others, to harmonize customs rules and regulations; simplify documentation and procedural requirements; upgrade infrastructure facilities; and provide training facilities. Several meetings of the Group culminated in the adoption of a “Customs Action Plan” in August 2004, which aims at:

- Maximizing harmonization, simplification and uniform application of customs procedures relating to facilitation of movement of goods and passengers.
- Ensuring proper application of customs laws through maximum mutual cooperation and assistance, in particular in the sphere of combating commercial frauds and trafficking in illicit drugs.
- Improving the working methods and human resources of member administrations through the efficient use of resources and training of customs personnel.

However, despite these finely drafted objectives, it is difficult to determine to what extent this Plan has been helpful in facilitating trade within the region in general and the LDCs in particular, as there is little information available in the public domain on how effectively the Plan is being implemented. The 16th SAARC Summit Declaration shows that the leaders have not only reiterated their commitment to accelerating trade facilitation measures but also directed the SAFTA Ministerial Council to work in earnest in a time-bound manner (para 20) as well as directed the relevant SAARC bodies to expedite their work in these areas (para 23) (SAARC 2010).

When the provision for better trade facilitation is impaired by the inherent constraints and a lack of capacity of certain members but with implications for

regional integration efforts as a whole, the regional grouping can help the delivery mechanism through joint assistance. This is undoubtedly the case of those regional groupings in which developed countries are the major players such as the EU and the Asia-Pacific Economic Cooperation (APEC). But in the context of South Asia, the example of COMESA—a South-South regional trade integration arrangement—would be more relevant. One example of such effort is the direct technical assistance provided by the South African Revenue Services to the regional partners (Maur 2008). This model is worth replicating in South Asia, as customs administrations in developing countries, particularly India and Pakistan, can train customs officials in the LDCs as well as provide technical support for the latter's capacity building.

### 6.3.2 Sub-regional initiatives

The idea of sub-regional economic cooperation, the result of the collective efforts of the foreign ministries of the countries/areas situated in the eastern part of South Asia, is to provide a boost to economic activities in Bangladesh, Bhutan, the eastern part of India and Nepal (BBIN). The idea received official acceptance from SAARC when the 9th SAARC Summit endorsed the South Asian Growth Quadrangle as a sub-regional initiative under SAARC.<sup>44</sup>

This sub-region is unique in three respects. First, this is the sub-region where the majority of the South Asian poor live,<sup>45</sup> and it produces most of the South Asian GDP.<sup>46</sup> Second, this sub-region has abundant resources, including human resources, fertile agricultural fields, energy potential, natural resources, and port facilities. Finally, this sub-region is strategically located between South Asia and Southeast Asia.<sup>47</sup> The ADB is its principal development partner and has been supporting the South Asia Sub-regional Economic Cooperation (SASEC) programme since 2001 through two region-

al technical assistance projects aimed at better integrating this sub-region within itself and with the rest of South Asia. SASEC working groups have been established in six priority sectors—transport; tourism; trade, investment and private-sector cooperation; energy and power; environment; and ICT (ADB 2006). Although SASEC deals with the areas of broader economic cooperation, trade is undoubtedly a major component of the programme.

The programme is inclusive in the sense that the countries outside the sub-regional framework are also included in the relevant working groups if they are interested in joining the programme.<sup>48</sup> It envisages active cooperation among BBIN, SAARC and the BIMSTEC Secretariat for the implementation of the identified projects, linking these activities with the Greater Mekong Subregion (GMS). The programme is not merely an intra-governmental initiative but also provides a forum for dialogue for the private sector and other development partners. The technical assistance programme also envisages that support will be provided to identify and prioritize projects in both South Asia and GMS countries, particularly aimed at ensuring enhanced connectivity in transport, ICT, and tourism development. The ADB has set aside a technical assistance grant of US\$1 million for conducting studies and organizing sub-regional conferences and meetings. Activities proposed under Phase II of the programme include:

- Identification of the six major corridors for improving sub-regional connectivity in terms of physical conditions and operational efficiency.
- Removing trade and non-trade barriers identified under the SASEC programme with a view to facilitating the movement of goods and attracting increased investment from both within and outside the region.
- Establishing regional ICT connectivity among BBIN countries with a view

*Customs administrations in developing countries, particularly India and Pakistan, can train customs officials in the LDCs.*

to contributing to reducing the cost of communications and enhancing the efficiency of doing business in the sub-region.

- Harnessing the rich indigenous energy resources in the sub-region with a view to ensuring benefits to both energy-rich and energy-deficient countries.
- Broadening the geographical areas to explore greater potential benefits, for example, in other South Asian and GMS countries.

Due to lacklustre progress in the provisioning of regional public goods for overcoming the supply-side constraints in the region in general and the LDCs in particular, Adhikari (2010) proposes the creation and mobilization of an LDC Integration Fund. Though it is difficult to quantify the size of the fund without adequate need assessments, an indicative portfolio with an annual contribution of US\$1.1 billion, calculated at 0.07 percent of the GDP of SAARC member states, can be created. The figure of 0.07 percent is 10 percent of what the United Nations has urged the OECD Development Assistance Committee (DAC) to contribute in the form of official development assistance (ODA). Adhikari (2010) proposes that financing be provided through various sources, including core contribution from members, donors and SAARC observers, bilateral contributions from developing countries in the region as per the spirit of the Article 11 (d) of SAFTA, and project-based contribution, which can come from AfT resources (discussed below).

#### 6.4 Multilateral initiatives

Among the multilateral initiatives, the AfT initiative, which was launched during the Hong Kong Ministerial Conference of the WTO, is the most prominent one. However, this initiative can be considered the proverbial “old wine in new bottle” for various reasons. First, although AfT data are available since 1967 as per the database maintained by the OECD (OECD/WTO 2009b: 53), the various categories of funding

that are now classified as AfT were being provided by donors for almost four and a half decades. Second, some other initiatives designed to “aid trade” or, for that matter, build the trade capacity of developing countries in general and the LDCs in particular have been around for nearly one and a half decades. Table 6.1 provides a snapshot of the evolution of these initiatives.

While earlier initiatives were also partly designed to address the supply-side constraints faced by developing countries in general and LDCs in particular, the issue did not figure predominantly in these initiatives. A closer look at the way they were implemented reveal that, with the exception of the Standards and Trade Development Facility, they were more focused on providing “software” nature of funding in the form of training, seminar, research and studies, which can help recipient countries overcome supply-side constraints only indirectly.

What is required for developing countries and the LDCs to overcome their supply-side constraints are “hardware” such as investment in the purchase of equipment and construction of infrastructure, which was clearly missing in most of the earlier trade-related capacity building initiatives. This is partly due to the amount of resources available under these initiatives. For example, even the much-hyped IF initiative had a total funding envelop of approximately US\$1.338 million per country, divided into two windows:

- Window 1: for financing DTISs (US\$300,000 per country) and strengthening in-country structures (US\$38,000 per country).
- Window 2: for financing priority capacity building projects in the LDCs as identified in the DTIS Action Matrices (US\$1 million per country) (WTO 2006a).

In order to address this problem, the Hong Kong Ministerial Conference also decided to take the IF to a new level

*Creation and mobilization of an LDC Integration Fund is a possible way of helping LDCs overcome supply-side constraints.*

**Table 6.1** Various versions of trade capacity building initiatives in chronological order

Initiatives	Main objectives
Integrated Framework for Trade-Related Technical Assistance (IF) (1997)	To help the LDCs mainstream trade into national development strategies and enhance their trade capacity
Doha Development Agenda Trade-Related Technical Assistance (2001)	To help developing countries better frame their trade policies and participate in trade negotiations
Standards and Trade Development Facility (2002)	To help developing countries enhance their expertise and capacity to analyse and to implement international sanitary and phyto-sanitary (SPS) standards, and to gain and maintain market access
Enhanced IF (2005)	Same as IF, but with additional funding
Aid for Trade (2005)	To help developing countries, in particular the LDCs, address their supply-side constraints, build productive capacity and adjust to the evolving nature of global trade liberalization

Source: Author's compilation from the WTO's website.

by scaling up funding for the initiative through what is now known as the Enhanced Integrated Framework (EIF). The Task Force constituted to develop proposals for such an enhancement, including expanding the IF's resources and scope, and making it more effective, has recommended that US\$400 million is required for the effective implementation of the framework (WTO 2006a).

However, the question again remains more or less the same because even when the entire US\$400 million is mobilized, the amount dedicated per LDC remains very low compared to the LDCs' need to overcome supply-side constraints. Therefore, this mechanism too, like its predecessor, may not move beyond helping the LDCs prepare their needs assessments and mainstream trade into their national development strategies. Realizing the paucity of funds available under the EIF trust fund, the WTO suggests that for most activities identified through the EIF, resources for implementation have to be mobilized from other sources, indicating that the LDCs need to tap into AfT resources to fund resource-intensive projects.<sup>49</sup>

AfT, among others, intends to directly address the issue of supply-side constraints. As stated in paragraph 57 of the Hong Kong Ministerial Declaration, "...Aid for Trade should aim to help de-

veloping countries, particularly LDCs, to build the *supply-side capacity and trade-related infrastructure* that they need to assist them to implement and benefit from WTO Agreements and more broadly to expand their trade..." (WTO 2005) (emphasis added).

The Declaration also invited the Director General of the WTO to create a task force to provide recommendation on the modalities for operationalizing AfT. As per the mandate provided by the Ministerial Conference, the Director General constituted a Task Force, which submitted its report to the General Council in July 2006. The Task Force Report, which was later adopted by the General Council, recommended dividing AfT into the following six categories:

- a) Trade-related infrastructure (e.g., road, telecommunication, electricity)
- b) Building productive capacity (e.g., enhancing productivity of agriculture, industry, fishery sectors)
- c) Trade development (e.g., investment promotion, trade promotion, business services)
- d) Trade-related adjustment (e.g., retraining of workers, compensation for retrenched workers)
- e) Trade policy and regulations (e.g., training of officials and stakeholders, help in designing policies and complying with trade rules)

*AfT intends to directly address the issue of supply-side constraints.*



- f) Other areas (e.g., other needs of the recipient countries that are not included above).<sup>50</sup>

Out of these categories, the first two are directly related to addressing supply-side constraints faced by developing countries in general and the LDCs in particular. The Task Force also recommended that the two major guiding principles be followed while disbursing AfT and monitoring its flow. First, the Paris Declaration on Aid Effectiveness should be followed to measure the effectiveness of AfT. The Paris Declaration, agreed in 2005, defines a number of commitments on the part of donors and partner countries, and a set of indicators to measure progress towards 2010. The Declaration rests on five common-sense tenets, that aid is more likely to promote development when:

- a) Developing countries exercise leadership over their development policies and plans (ownership)
- b) Donors base their support on countries' development strategies and systems (alignment)
- c) Donors coordinate their activities and minimize the cost of delivering aid (harmonization)
- d) Developing countries and donors orient their activities to achieve the desired results (managing for results)
- e) Donors and developing countries are accountable to each other for progress in managing aid better and in achieving development results (mutual accountability) (OECD 2007).

The second guiding principle was that the WTO should be responsible for monitoring the flow and effectiveness of AfT. This would mean that the donors would continue to provide resources to developing countries on a bilateral basis, but the WTO would be responsible for overseeing the implementation of the commitments made. In order to fulfil this mandate, the WTO organizes Global Review of AfT. Two such reviews have taken place, in 2007 and 2009. According to the latest review document, produced

jointly by the OECD and the WTO, AfT reached US\$25.42 billion in 2007, which represents an increase of US\$4.3 billion (21 percent) over the baseline period (2002–2005), under four major headings, namely economic infrastructure; building productive capacity; trade policy and regulations; and trade-related adjustment (OECD/WTO 2009b). The Global Review report claims that the above increase is in addition to the regular ODA, and it was not provided at the cost of funding provided to social sectors (such as health and education) (*ibid.*).

The major focus of the AfT initiative has been on economic infrastructure in which 54 percent of total commitments were made. This is followed by building productive capacity, which attracted an average share of 43 percent between 2002 and 2007. If we combine these two categories, almost 97 percent of AfT commitments were made in helping developing countries overcome their supply-side constraints (OECD/WTO 2009b: 57).

The Global Review report also states that maintaining the same pace of funding would be a challenging task given the impact of the global financial crisis on donor countries. Assuming that AfT funding is pegged to the Gross National Income (GNI) of donor countries, which is normally the case, a fall in their GNI will have a direct impact on the flow of AfT. Another fact highlighted in the report is that multilateral donors (such as the World Bank, and regional development banks) delivered more than 60 percent of the total resources under AfT.

The report also highlights the fact that the flow of AfT has increased to low-income countries, particularly those in sub-Saharan Africa, although Asia is still the largest recipient of AfT, which is not surprising given the size of the economies of Asia as well as the number of the absolute poor living in the region. While Asia received a total AfT funding commitment of US\$10.7 billion in 2007, Africa received US\$9.5 billion. How-

*The major focus of the AfT initiative has been on economic infrastructure, followed by productive capacity.*



ever, the growing importance placed by aid donors on Africa is visible from the fact that the share of Africa in the total AfT commitments received increased from 30 percent in the baseline period to 38 percent in 2007. In the case of Asia, this share fell from 50 percent to 42 percent during the corresponding period (OECD/WTO 2009b: 59). From South Asia, five countries figure among the top 20 countries receiving AfT—with India topping the list and Afghanistan, Bangladesh, Pakistan and Sri Lanka in the 3rd, 9th, 13th and 18th positions respectively. However, Nepal does not figure in the list of top 20 recipients of AfT.

Another important facet reported in the Global Review report, based on a questionnaire-based survey, is that partner countries are increasingly more engaged in AfT, with mainstreaming of trade into national development plans and strategies taking place at the policy level in a majority of partner countries (*ibid.*: 47). Finally, the report considers that South-South flow of AfT is increasing rapidly, which, unfortunately, could not be captured by the report, because the data presented in the report were based on the reporting of donors belonging to the OECD DAC. Southern donors such as Brazil, China and India seem to have emerged as the major AfT donors providing support to other developing countries—both within the region and outside. However, this is an under-researched area and precious little evidence of these flows is available in the public domain.

Although the OECD/WTO publication discussed above claims that AfT has been effective, the initiative has come under serious criticisms from academics, developing-country policy makers and practitioners, among others. Adhikari (2010), for example, discusses five major critiques of AfT. First, an extremely broad definition of AfT makes it possible for donors to include several cat-

egories of ODA under AfT, and jack up the figure.

Second, developing countries do not seem particularly pleased with the way the AfT architecture has been designed, which requires them to request their traditional donors for AfT assistance, and not the creation of a vertical fund. This is because the latter idea, which was initially floated by Stiglitz and Charlton (2006), was rejected by developed countries.

Third, donors seem to be using AfT to achieve their other policy objectives (such as foreign policy or market expansion) rather than helping developing countries and the LDCs in their quest for overcoming supply-side constraints.

Fourth, the nature of funding contradicts the intended purpose of AfT, a demand that AfT should be “non-debt-creating” in nature. Not all the donors provide AfT in the form of grant; some of them provide it in the form of loan. Many developing countries are already overburdened with debt; adding to the debt burden to these countries in the form of AfT loans may not be desirable.

Fifth, donors continue to focus on the provision of “software” which does not add to the productivity of the economy and is not likely to contribute significantly to increasing trade, particularly exports, of partner countries. Worse still, some of the donor conditions even for “hardware” projects include the requirement to hire consultants from their own countries.

Finally, there is a lack of coordination among donors in the provisioning of AfT funding. Some areas such as capacity building are over-funded and there is a huge concentration of donors in these areas, whereas there is limited funding available to meet the genuine trade-related needs of partner countries.

*Donors seem to be using AfT to achieve their other policy objectives rather than helping developing countries and the LDCs in their quest for overcoming supply-side constraints.*

## Issues for discussion

- How successful are the various national, regional and multilateral efforts at tackling supply-side constraints of South Asian LDCs?
- What factors hinder sub-regional integration initiatives in South Asia from replicating the success of similar arrangements elsewhere (such as the Mekong sub-regional cooperation)?
- How can synergy be created between aid for trade and regional initiatives for addressing supply-side constraints in South Asia?

# Conclusion

The inability of South Asian LDCs, in particular Bangladesh and Nepal, to effectively exploit the market access opportunities generated through more than six decades of trade negotiations as well as some unilateral non-reciprocal trade preferences, is explained partly by the limited supply response. At the same time, increased attention is being paid, both in academic and policy discussions, towards the reduction of trade costs due mainly to “integration of trade” and “disintegration of production.”

The argument that a reduction in trade costs could help countries enhance their competitiveness at the global level has transcended the theoretical domain, given a large body of empirical literature which corroborates this association. Both these issues, which are intimately intertwined and form a part of the larger discussion on supply-side constraints, have hitherto been largely ignored in mainstream trade theory discussions.

The literature review in this paper shows that the trade literature is still overwhelmingly focused on the issue of market access. However, there has, of late, been some discernible shift towards analysing the role of supply-side constraints in ensuring that market access is converted into market entry.

Besides a number of general studies that have been conducted on these constraints, studies conducted in the context of South Asia in general and LDCs such as Bangladesh and Nepal in particular consider the following as the major constraints.

- Inadequate infrastructure for the efficient transportation of goods means that these countries are unable to establish footholds in markets where efficiency in delivery is a key test to determine the sustainability of business relations.
- Lack of human capital particularly endowed with education and skills necessary to process exportables means that despite low wages, South Asian workers are unable to match the level of productivity of the workers in other highly competitive countries (such as China) even in labour-intensive production.
- Lack of access to credit hinders, *inter alia*, the prospects for meeting the working capital requirement and expanding the business volume as well as enhancing investments in capital goods.
- High costs of inputs resulting from poor quality of infrastructure and the virtual absence of backward linkages.
- Virtual absence of trade facilitation measures, causing, *inter alia*, delays in shipment of goods as well as unofficial payments for both imports and exports.

Based on the heuristic definition of supply-side constraints as proposed in Chapter 2, we divided the overall supply-side problématique into four constituent parts and analysed them separately in the context of Bangladesh and Nepal. We find that these countries are not only handicapped by a low level of production so as to be able to have enough surplus left for exports but also are constrained

*Bangladesh and Nepal are not only handicapped by a low level of production but also are constrained by the lack of competitiveness of their exports in the world market.*

by the lack of competitiveness of their exports in comparison to those of their competitors in the world market. Since the geographical location of a country exacerbates the problem of supply-side constraints, particularly if the country in question is a landlocked one, this issue was also touched upon. Finally, given the fact that the salience of governance in the provisioning of trade-related public goods cannot be under-estimated, we discussed the two important components of governance, namely institutional gap and policy-implementation gap, which could have deleterious impacts as far as the role of governance in overcoming supply-side constraints is concerned.

Both Bangladesh and Nepal face acute problems of infrastructure deficit—both within their own borders and across the border—particularly in the road transportation sector, which reduces their competitiveness in international and regional trade. This is caused by various physical and non-physical barriers, the majority of which can be overcome through collective (regional) efforts. Similarly, these countries have made only limited progress on the human capital front, particularly educational attainment, which continues to affect their productivity and competitiveness. Since being locked into the production of low-value goods is immiserizing and the path to prosperity lies in moving up the value chain ladder, both public and private sectors need to put their resources together to augment national investment in human capital, particularly in education and skill development.

Finally, trade facilitation measures, particularly the services provided by customs, which have assumed greater salience due to demand for seamless movement of goods and services as well as due to increased security threats, require substantial improvement in both Bangladesh and Nepal. The gains from reform in this area for the South Asian region as a whole are enormous, and countries such as Bangladesh and Nepal, which start from a fairly low level, could

gain more than their developing-country counterparts in the region.

Dismal governance record coupled with the continued problem of resource crunch notwithstanding, there has been considerable efforts at the national level, whether by the government or the private sector (the latter one is particularly relevant in the case of Bangladesh), to overcome crucial supply-side constraints, including those related to road infrastructure, education and customs reforms. Although the progress being made on this front is laudable to some extent, it is far from satisfactory if we consider the global trend as the benchmark. It is observed that while the commitments and efforts of the government is a necessary condition for helping these countries overcome these constraints, it is in no way a sufficient condition. Other stakeholders, in particular, the private sector and donors, have an important role to play in this endeavour.

There has been some effort at the regional and sub-regional levels, particularly in the areas of human capital, trade facilitation and infrastructure development, to help the countries in the region alleviate their supply-side constraints. However, like national efforts, they are far from sufficient. This makes initiatives such as the proposed *LDC Integration Fund*, primarily aimed at overcoming the resource crunch problem faced by the region—especially concerning overcoming supply-side constraints facing the LDCs in the region—all the more important.

At the multilateral level, most of the initiatives taken so far have not produced the desired results. The Aft initiative, which initially promised to be a vehicle for the delivery of financial resources to developing countries in general and the LDCs in particular, has also come under criticisms due to extremely broad definition, direct delivery mechanism as opposed to the creation of a vertical fund, debt-creating nature, continued focus on “software” as opposed to “hardware”, and a lack of donor coordination. Giv-

*At the multilateral level, most of the initiatives taken so far have not produced the desired results.*

en the fact that the initiative is the last hope for the LDCs, any failure on this front could severely jeopardize their efforts to better integrate themselves into the global economy in general and the multilateral trading system in particular. Worse, the failure of the initiative to ad-

dress the supply-side constraints facing these countries could have deleterious impacts on the credibility of the WTO. Therefore, the above criticisms against the initiative should be taken as a clarion call to reform and fine tune the initiative before it becomes too late.



# Endnotes

- <sup>1</sup> This latter study conducted by Djankov *et al.* (2010: 173) also suggests that a one-day reduction in delay prior to the cargo sailing to its export destination is equivalent to reducing the trade distance by around 70 kilometres.
- <sup>2</sup> See IMF and World Bank (2005: 38); Schuler (2005) cited in Prowse (2006: 85).
- <sup>3</sup> The example of the problems faced by Nepal in exporting honey to Norway is a case in point. Since Nepal does not have a control system on the use of drugs in bees, as well as inspection and certification systems for honey by official Veterinary Services, Nepalese exporters could not export honey to Norway. See Mahato, Gongal and Chaulagain (2004).
- <sup>4</sup> For example, the EU is entering into a free trade agreement with India, which will grossly erode preference margins for the South Asian LDCs, which are dependent on preferential market access under the Everything but Arms (EBA) initiative in the EU market (also discussed below). See Winters *et al.* (2009) for further details.
- <sup>5</sup> Although the Maldives is also considered an LDC for the purpose of this study because the data and information used in the analysis pertain to the period during which it was an LDC, it graduated to a “developing country” status with effect from 1 January 2011.
- <sup>6</sup> The figure does not include the exports of Timor-Leste as the same is not available.
- <sup>7</sup> Although there are doubts as to whether these measures were truly “unilateral” and “autonomous” or were externally driven. See Adhikari (2009).
- <sup>8</sup> These are considered the prime elements through which a country’s openness to external trade is measured. See Rodrik (2002).
- <sup>9</sup> For example, by virtue of being the founder member of the WTO, Bangladesh is among the countries with the lowest level of commitments. On the contrary, having acceded to the WTO in 2004, Nepal has made commitments that are among the highest of all the LDC members of the WTO. For a comparison of the commitments made by these two countries, see Adhikari (2005). Similarly, the Maldives, which is another founding member of the WTO, was not required to make extensive commitments at the time of its membership of the WTO. However, Afghanistan and Bhutan, which are yet to become WTO members, are likely to face similar conditions for their entry into the WTO as Nepal.
- <sup>10</sup> The seven founding members of SAFTA were Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka. Afghanistan joined later following its entry into SAARC.
- <sup>11</sup> Members of BIMSTEC are Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka and Thailand.
- <sup>12</sup> For further details, see Adhikari and Yamamoto (2007).
- <sup>13</sup> This clause is formally known as “Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries”. See GATT (1979).
- <sup>14</sup> GATT (1979); see also Pandey (2003).
- <sup>15</sup> See Inama (2002); UNCTAD (2004) for further details.
- <sup>16</sup> See, for example, Inama (2002); Khatun (2007).
- <sup>17</sup> According to a count made by Grindle (2004), there are 116 such conditions that World Bank had imposed on its borrower countries under the broad rubric of “good governance.” She suggests that since it is impossible for these incapacitated and resource-scarce countries to implement all the good governance-related conditionalities, “good enough governance” should be the criteria to judge the borrowing countries’ commitment to governance reform.
- <sup>18</sup> See also Pandey (2009) who too suggests that corruption is prevalent in every country in the world.

- <sup>19</sup> Those countries that have not been included in the list are primarily because TI requires at least three sources of surveys conducted in the countries to be included in the ranking. According to TI, the higher the number of sources used, the more accurate the ranking is likely to be.
- <sup>20</sup> See also Kaufmann *et al.* (2009: 18) for the limitations (as well as claimed robustness) of these indicators in the words of the authors themselves.
- <sup>21</sup> [http://www.transparency.org/policy\\_research/nis](http://www.transparency.org/policy_research/nis) (accessed 15 September 2010).
- <sup>22</sup> For the role of political institutions, particularly democracy, absence of violence and normal political order in the provisioning of the public goods, see a path-breaking analysis of Olson (1993).
- <sup>23</sup> Furnham (1990: 1), for example, states: “[T]he thesis has survived as one of the best known and controversial works in all social sciences.”
- <sup>24</sup> See World Bank (2008: 20–21) for further details.
- <sup>25</sup> They are: a) Kathmandu–Kakarbhitta–Phulbari–Banglabandh–Mongla/Chittagong covering Bangladesh and Nepal; b) Sandrop Jongkhar–Guwahati–Shillong–Sylhet–Dhaka–Kolkata involving Bangladesh and Bhutan; and c) Thimphu–Phuentsholing–Jaigaon–Burimari–Mongla/Chittagong linking Bhutan with Bangladesh. See Rahmatullah (2010).
- <sup>26</sup> See UNDP (2007).
- <sup>27</sup> According to UNESCO (2010: 284): “The EDI is the arithmetic mean of its four components: primary adjusted NER, adult literacy rate, GEI and survival rate to grade 5. As a simple average, the EDI may mask important variations among its components: for example, results for goals on which a country has made less progress can offset its advances on others. Since all the goals are equally important for Education for All to be achieved as a whole, a synthetic indicator such as the EDI is thus very useful to inform the policy debate on the prominence of all the Education for All goals and to highlight the synergy among them.”
- <sup>28</sup> Primary adjusted NER includes children of primary school age who are enrolled in either primary or secondary schools (*ibid.*: 286).
- <sup>29</sup> Ribound and Tan (2009) suggest that the probability of post-school training (whether on the job or outside) and subsequent prospects of skill development rises with the average years of schooling attained by a firm’s workforce. According to them, this result is consistent with the earlier analysis of education and post-school training, and with empirical evidence from many developing countries. See, for example, Tan and Batra (1995) for estimates of the relationship between education levels from five developing countries.
- <sup>30</sup> For example, in Bangladesh, the minimum wage for garment workers was fixed in 1994 at 930 Takas (about US\$16) per month, which was not revised for a long time in spite of a rising trend of inflation (Adhikari and Yamamoto 2007). Recently, after violent protests by workers, the minimum wage has been raised to 3,000 Takas (about US\$44) per month (Guardian 2010).
- <sup>31</sup> Underscoring the salience of such knowledge, Hausmann and Rodrik (2003: 624) on their part argue that “mastering modern production techniques is greatly complicated by the tacit elements in technology.”
- <sup>32</sup> Also recognizing the limitation of the country selection, he concludes by stating: “multi-country comparative studies would be preferable in order to find some benchmarks to lean on. Only then, if the findings are not different from those in the current paper, challenges of some aspects of the theory might be sought” (Ganev 2005: 12).
- <sup>33</sup> See WTO website: [www.wto.org](http://www.wto.org). This definition of the WTO is rather narrow in the sense that it does not cover other issues such as transportation and non-tariff barriers, which are also significant constituents of trade facilitation. See Grainger (2008: 20).
- <sup>34</sup> A commentator describes the recent avalanche of supply chain security control as “security spaghetti”. See Grainger (2007).
- <sup>35</sup> See SITPRO (2008) for a brief account of avoidable costs of paper-based trading.
- <sup>36</sup> See, for example, SITPRO (2008) in the case of UK; Hossain, Deb and Al Amin (2009) in the case of Bangladesh; and Commonwealth of Australia (2001) in the case of Asia-Pacific Economic Cooperation (APEC).
- <sup>37</sup> See MoF/B (2009) in the case of Bangladesh and NPC (2010) in the case of Nepal.
- <sup>38</sup> See the website of Ministry of Education, Government of Bangladesh.
- <sup>39</sup> See DataSoft’s website: [http://www.datasoft-bd.com/images/DSSBL\\_files/download/dhaka\\_custom\\_flyer.pdf](http://www.datasoft-bd.com/images/DSSBL_files/download/dhaka_custom_flyer.pdf) (accessed 22 September 2010).
- <sup>40</sup> See Dahal (2010) for further details.
- <sup>41</sup> A copy of the report is in possession of the author, but cannot be cited for ethical reasons.
- <sup>42</sup> See the website of the Centre, <http://www.shrdc-isb.org.pk/> (accessed 3 June 2009), for further

- details.
- <sup>43</sup> See Concept Paper on Productivity Growth and Human Resources Development in South Asia, prepared by SHRDC, available at <http://www.shrdc-isb.org.pk/> (accessed 3 June 2009).
- <sup>44</sup> <http://www.adb.org/sasec/assistance.asp> (accessed 3 June 2009).
- <sup>45</sup> The sub-region has a population of about 1.16 billion people (18.4 percent of the world population and 92.8 percent of the South Asian population). ADB (2006).
- <sup>46</sup> The sub-region's GDP stands at US\$543 billion (1.7 percent of the world GDP and 86.5 percent of the South Asian GDP). *ibid.*
- <sup>47</sup> <http://www.adb.org/sasec/about.asp> (accessed 3 June 2009).
- <sup>48</sup> For example, Sri Lanka has been invited to participate in the regional working group on tourism.
- <sup>49</sup> See WTO EIF page of the WTO website.
- <sup>50</sup> See WTO (2006b) for further details.

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South Asia Watch on Trade, Economics and Environment (SAWTEE) is a regional network that operates through its secretariat in Kathmandu and member institutions from five South Asian countries, namely Bangladesh, India, Nepal, Pakistan and Sri Lanka. The overall objective of SAWTEE is to build the capacity of concerned stakeholders in South Asia in the context of liberalization and globalization.

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