



# Trans-border Vulnerabilities

*Khalil Hamdani*

---

***Khalil Hamdani*** was the director of the Division on Investment, Technology and Enterprise Development at the United Nations Conference on Trade and Development (UNCTAD) from 2006 to 2007, and Special Adviser to the South Centre from 2007 to 2009.

## ABSTRACT

Global connectivity is a powerful dynamic for human development. It is also a source of vulnerability. As people become more mobile and countries more interdependent, their interactions give rise to vulnerabilities that transcend borders. This is an increasing trend; it is not necessarily bad, but it is a complexity that warrants a global view. The policy responses to trans-border threats—protection, mitigation and adaptation—may entail collective actions that are not always forthcoming due to competing interests, opaque responsibilities and freeriders. When vulnerability is trans-border, it is more appropriately addressed within a global framework of principles, rules and institutions that enable the policy space for collective action. Such a framework is a global public good. The implication, from a human development perspective, is that public goods, and appropriate policies and institutions, can tilt the balance in favour of resilience. This is evident at the national level, but it is equally relevant at the global level. The efforts to contain pandemics and protectionism are examples; other measures are needed for a more sustainable world.

## Introduction

Vulnerability transcends borders. This was evident in the 14<sup>th</sup> century when commerce transported the Black Death across continents in caravans and merchant ships to inflict huge losses in human lives across Asia and Europe. Avian virus makes that crossing today in jumbo jets, but the threat of loss is thankfully less due to medical advances and, importantly, a worldwide effort at health preparedness—a global public good. People are now less vulnerable, and nations more resilient, to pandemics. Recognition of shared responsibility and need for collective defence against trans-border vulnerabilities is a major innovation of our generation.

Trans-border vulnerability is the component of total vulnerability that can be attributable to external events and actions. It is zero for a closed economy, which may still be vulnerable to shocks internal to its socio-economic ecosystem. In the simple textbook example, when a closed economy opens up, its pre-existing vulnerabilities can compound, and new vulnerabilities can arise from interaction with other economies and from exposure to a wider range of shocks in the rest of the world. At the same time, countervailing, beneficial effects of connectivity can reinforce resilience at home, abroad and for the world community as a whole. Importantly, policy space expands. The implication, from a human development perspective, is that public goods, and appropriate policies and institutions, can tilt the balance in favour of resilience. This is evident at the national level, but it is equally relevant at the global level. The effort to contain pandemics is an example; other efforts are

needed for a more sustainable world. Reconciling competing interests, assigning responsibilities and enlisting freeriders in collective action, however, are formidable challenges.

This paper examines the case for coherent policy responses—national, regional and multilateral—to the various trans-border vulnerabilities posed by an increasingly interconnected world.

## Trans-border vulnerability

Trans-border vulnerabilities can take a variety of forms. Consider some recent occurrences. A volcano in Iceland disrupts air travel in Europe, and fresh produce rots in Africa and Latin America. A terrorist incident in Egypt claims the lives of Asian, American and European tourists. A tsunami off Japan disrupts the supply of components to US manufacturers. A bank in New York collapses, triggering crises in financial capitals and a great recession. Monetary policy to speed recovery from that recession disturbs currencies in other economies. A building collapse in Bangladesh unleashes civil society protests against department stores in Europe and the United States. Refugees fleeing civil strife are everywhere but home.

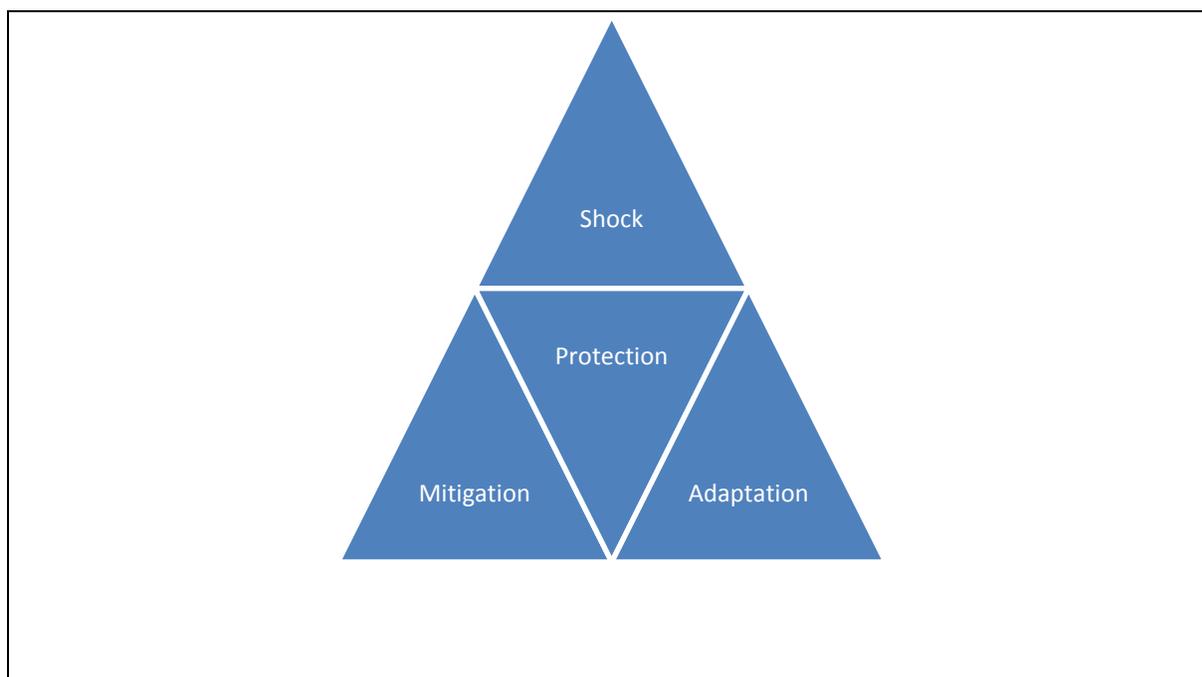
Air travel, tourism and corporate supply chains create jobs, exports and economic growth, but in the process, the lives of people become intertwined. This is an increasing trend; it is not necessarily bad, but it is a complexity that warrants a global view.

Trans-border vulnerabilities can merit a range of responses. A familiar approach is border control. The Great Wall of China, built in the Qin and Ming Dynasties, is an early example; a more recent one is the ‘secure fence’ constructed from 2006 to 2010 on the border between Mexico and the United States. Neither was wholly effective and both were abandoned. Countries still monitor, and tax, the movement of people, animals, goods, services and money. Demilitarized zones, conflict areas and disputed lines of control are heavily fortified, but, generally, border procedures have become harmonized, streamlined and computerized to expedite movement. Some borders even allow free flow. The vulnerabilities are being addressed differently.

It is generally recognized that castle moats, city gates and national borders are weak safeguards in today’s interconnected world. Firewalls have replaced the Great Wall, as hackers have replaced marauders, but the futility of individual action against external threats is ever present. Moreover, internal threats—those embedded in global interconnections and interactions—are easily overlooked or ignored until they manifest in unpredictable ways, as when the volatile trading of financial derivatives disrupts global markets. Such incidents point to the need to address vulnerabilities not at the border but also at source and at impact, and to do so collectively.

The policy responses to the threat of a trans-border shock can involve actions of three kinds (see figure 1). First, policies can aim to reduce a country's or people's exposure to the potential shock through safeguards and other protective actions. Second, policies can seek to mitigate or lessen the threat of the shock through preventive actions. And third, policies can strengthen the capacity to adapt to the eventual shock and thereby bolster resilience. Generally, protective actions are short-term and palliative, while mitigation and adaptation are longer term responses with more durable impacts.

**Figure 1: Trans-border vulnerability policy response matrix**



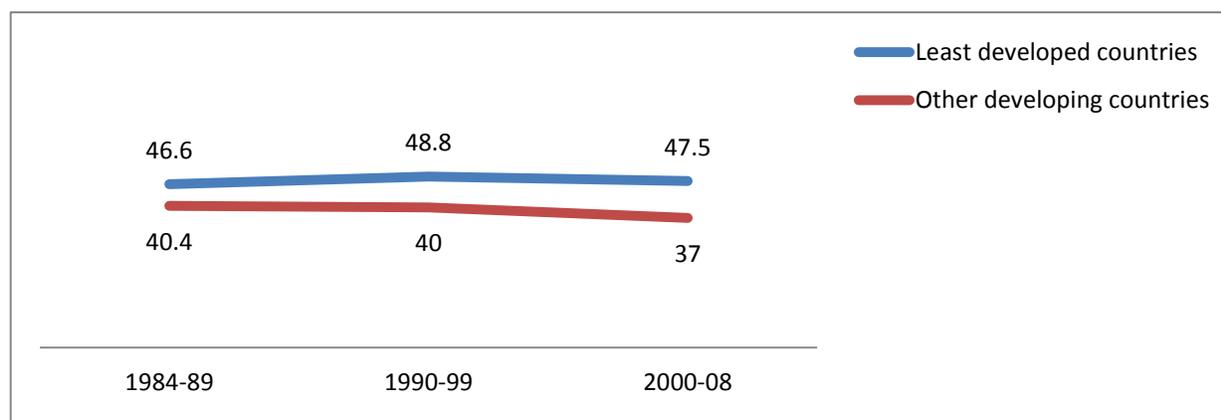
All three types of policy response—protection, mitigation and adaptation—may entail collective action, involving multilateral protocols and institutions, as well as technical assistance and financial support.

A principal concern in any policy response is the vulnerability of particular groups, and the possible need to redistribute its incidence from less capable to more capable actors (whether individuals, enterprises or institutions in the private or public sectors), and from national levels to regional and global levels.

As an illustration of the policy response matrix, consider the case of the least developed countries (LDCs). The United Nations in 1971 established a category of developing countries with low

human capabilities and structural impediments that make them particularly vulnerable to external economic shocks. These states, now 49 in number, have been increasingly more vulnerable to economic shocks than other developing countries over the past two decades (see figure 2).

**Figure 2: Economic vulnerability index (percentage)**



Source: Cariolle 2011.

The policy approach for the LDCs and other structurally weak, vulnerable and small economies has been threefold. First, *protection* policies have aimed to reduce their exposure to global shocks by, for instance, allowing recourse to compensatory financing facilities and standby arrangements in the event of major commodity price instability. Second, *mitigation* policies have sought to lessen the likelihood and severity of shocks by lowering structural vulnerability by, for instance, removing supply side constraints. Third, *adaptation* policies have striven to increase their resilience to exogenous shocks by, for instance, diversification of their production structure and export pattern, and by building their human capabilities and deepening their skills base.

International support for the LDCs has taken a variety of forms, ranging from special financing facilities to trade preferences and aid for trade, technical advice and assistance for capacity-building. Extensive bilateral and multilateral cooperation has been underway as part of the several special programmes of action for the LDCs.

There are other United Nations categories of vulnerable countries, including the landlocked developing countries and the small island developing states, as well as states in conflict situations. The last are particularly vulnerable to trans-border shocks (UNCTAD 2007, p. 19).

## Global connectivity and trans-border vulnerability

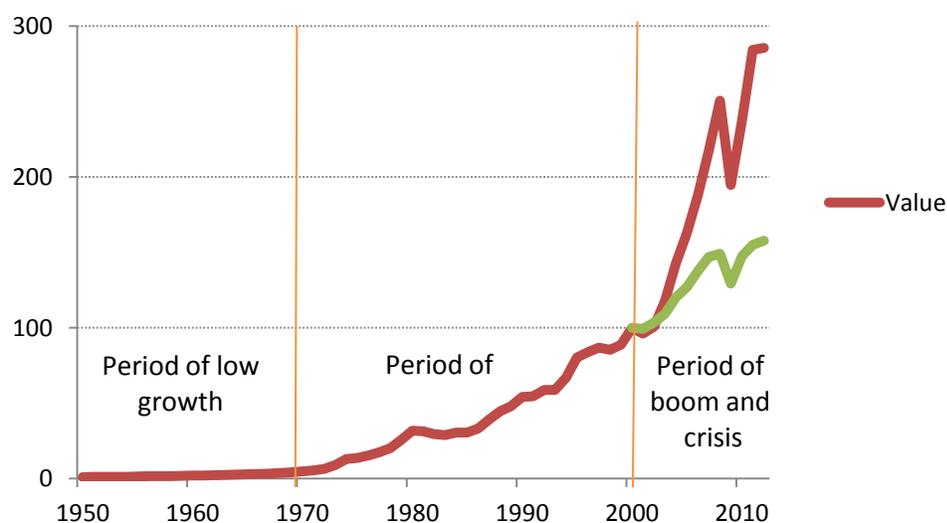
Global connectivity is a powerful dynamic for human development. World and regional markets are an economic stimulus for small states. Trade and capital flows benefit home and host countries. Movements of people and the spread of technology enrich societies, culture and genetic diversity. Digital connectivity diffuses knowledge, and spurs innovation and entrepreneurship. Countries gain from each other's comparative advantages, and emerging economies catch up more rapidly with mature economies. As discussed in the 2013 Human Development Report (UNDP 2013), the tapping of global markets is an important driver of development transformation, especially when accompanied with an expansion of human capabilities.

### MARKETS

A basic indicator of global connectivity is international trade, which has expanded dramatically since the Second World War, and has accompanied and sustained economic growth (see figure 3). Developing countries have been particularly active in world trade in the past decade, notwithstanding the vulnerability experienced in 2008 and 2009 when the volume of world trade fell by 20 percent (see figure 4). Indeed, the poorer the country, the more rapid has been its connectivity (see figure 5). The increasing participation of developing countries in world markets and in trade among themselves is diversifying trade patterns and imparting resilience to global growth.

**Figure 3: Global connectivity: markets and economic growth**

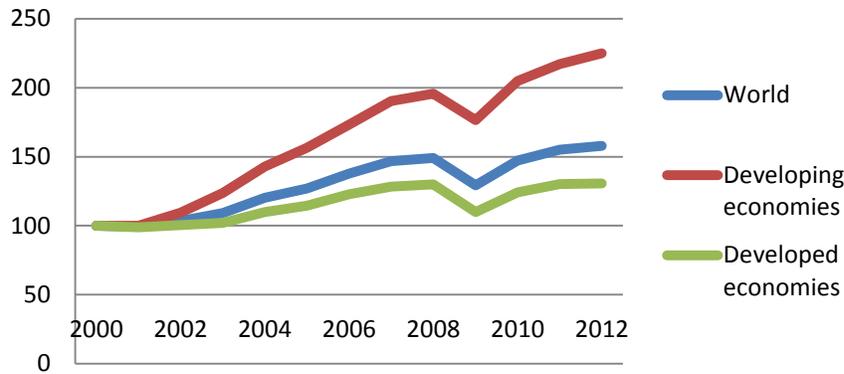
*World merchandise exports (index numbers, 2,000=100)*



Source: UNCTAD, <http://unctadstat.unctad.org>.

**Figure 4: Global connectivity: emerging economies are leading world trade**

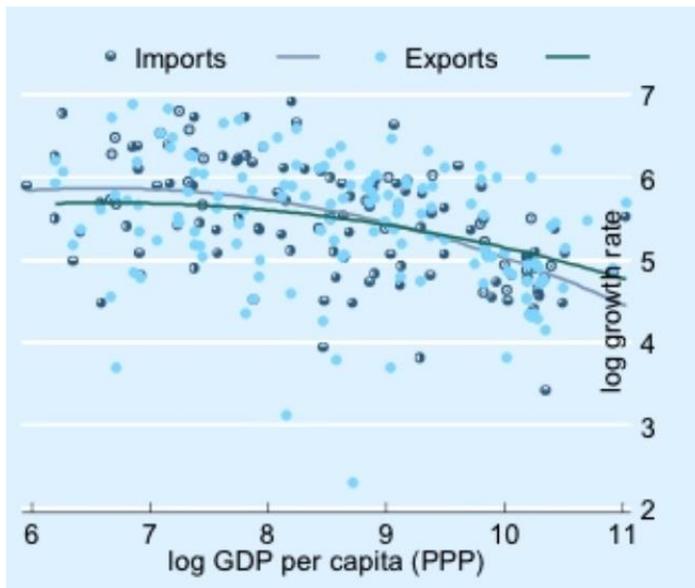
*Merchandise export volume (index numbers, 2,000=100)*



Source: UNCTAD, <http://unctadstat.unctad.org>.

**Figure 5: Trade grew faster in low-income countries**

*Trade growth in 2002-2011 and gross domestic product (GDP) per capita in 2002*



Source: UNCTAD 2013a, p. 10.

Integration through markets involves change, sometimes rapid and brutal, requiring adaptations on the part of individuals, enterprises and governments. Employment and exports grow, but workers may also lose jobs as companies close and industries relocate. The more resilient adapt better than others. The adjustments are particularly hard for the more vulnerable segments of society. Pre-existing vulnerabilities are stressed. This ensues in all countries—big, small, rich and poor—and the policy responses range from defensive actions like protection of infant and sunset

industries to proactive measures like worker training, business support, and improvement of technological skills and capacities. Experience suggests that a judicious mix of policies, with particular emphasis on the building of human competencies, is a common feature of successful adjustment. Overall, integration has proceeded hand-in-hand with human progress. The tendency to externalize vulnerabilities and downplay the importance of national improvements is a political expediency.

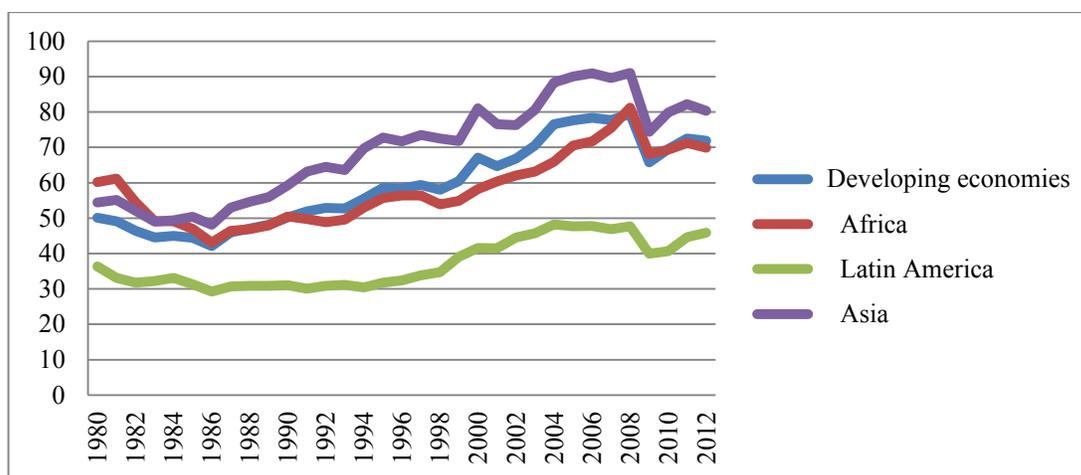
In developed countries, there is a perceived increase in trans-border vulnerability due to the rebalancing of world trade (Milberg and Winkler 2009). Even prior to the current recession, their economies have been maturing—reflected in generally slower growth in manufacturing value added, labour productivity and worker wages—and the trend by global companies to relocate production to lower wage countries and emerging markets is perceived as adding to worker insecurity, despite the growth of high-skilled jobs. Such concern underlies protectionist sentiment in some countries, reflected in the protest against the offshoring of jobs and the call for policies to relocate production back home. A more affirmative response, however, involves a mix of policies to encourage innovation, worker retraining, job creation and productivity-enhancing investment. Country experience shows that social protection policies can increase international competitiveness (Milberg and Houston 2005).

In developing countries, trade openness is sometimes seen as an incorrect label for trade dependence. All developing regions are increasingly reliant on exports and imports (see figure 6). An expansion of traditional exports is perceived as making countries vulnerable to fluctuations in commodity prices and terms of trade, while increased imports of manufactures inhibits industrial development. This is a particular concern in Africa. Indeed, commodity prices are volatile (see table 1). But the positive experience of Asian developing countries suggests that an appropriate mix of policies—of human development, enterprise development, and technological learning and upgrading—can ease a shift from commodities to industrial exports (Hamdani 2013). The present period is opportune for implementing such new industrial policies, with Africa benefiting from a decade-long rise in its terms of trade (see figure 7).

The broad growth experience of developing countries suggests that economic growth occurs in spells that are easier to start than to sustain. Also, growth spells are longer in Asia than in other developing regions. Growth spells in Africa are marked by short duration, rapid upturns, and large downturns or hard landings (Berg and Ostry 2011). Among the factors that sustain growth are the cohesiveness of the domestic society—its income equality—and its integration in the world economy. Countries with these characteristics grew better before the recent financial crisis and recovered faster in the wake of it. In other words, global connectivity exposes countries to trans-border vulnerability but also makes them more resilient to trans-border crises.

**Figure 6: Trade openness**

Total trade of goods and services as a share of GDP (percentage)



Source: UNCTAD, <http://unctadstat.unctad.org>.

**Table 1: Commodity price instability**

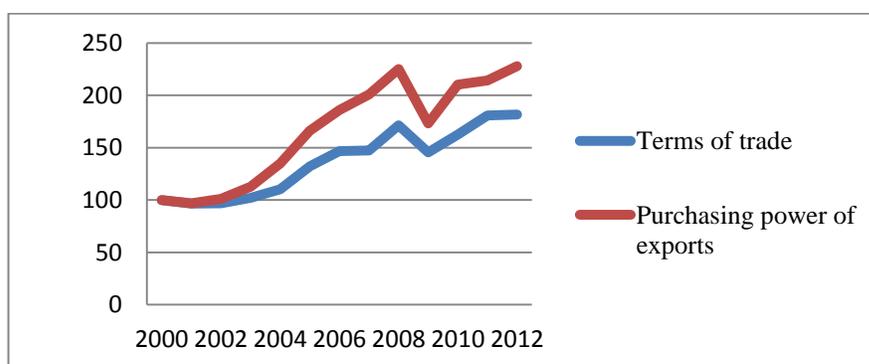
Index values of 5+ indicate medium volatility and 10+ indicate high volatility

Commodity	1983-1992	1993-2002	2003-2012
Food	11.1	8.8	7.5
Tropical beverages	11.0	21.1	8.4
Vegetable oils and seeds	17.5	16.1	15.5
Agricultural raw materials	6.2	8.6	9.9
Minerals, ores and metals	15.0	10.1	21.7

Source: UNCTAD, <http://unctadstat.unctad.org>.

**Figure 7: Terms of trade of Africa**

Index numbers, 2,000=100



Source: UNCTAD, <http://unctadstat.unctad.org>.

The international trade system is a global public good comprising agreed principles of shared responsibility and collective defence—the rules of the game—that help contracting parties protect, mitigate and adapt to trans-border vulnerabilities arising from open markets and the actions of trading partners.<sup>1</sup> When nations lower trade barriers, they can consume a greater variety and quantity of goods and services, and collectively their policy space expands, allowing them to consume and produce more and grow more rapidly than before; that has been the historical experience (see figure 3). However, not everyone benefits equally from free trade and, as with any dynamic process, it can bring instability. As discussed, commodity exporting-countries benefit from favourable terms of trade when commodity prices rise, and lose when prices fall. Protectionist policies invite retaliation that can spark trade wars, which were a cause of the Great Depression of the 1930s.

The international trading system addresses, in principle, these trans-border vulnerabilities. Principles like most favoured nation status, non-discrimination, anti-dumping and dispute settlement cushion countries from each other's actions, thereby lowering the reciprocal nature of trans-border vulnerability. Countries can take temporary safeguard action against sudden price movements in other parts of the world, so limiting the range of trans-border vulnerability (for instance, to spikes in the price of food imports).

In addition, equity concerns are reflected in provisions for differential and more favourable treatment of developing countries, grace periods for implementing their commitments, measures to expand their trading opportunities including technical assistance and aid for trade, and duty and quota free access for the exports of the LDCs. These protocols emerged over decades, as countries have come to realize that tariff reduction promotes trade but not always equitably, and also integrates them into a larger system with internal dynamics that warrant rules and standards of collective governance. The World Trade Organization (WTO) was established in 1994, some 40 years after the need for an international trade organization was recognized and after a resurgence of protectionism in the 1980s.

The search for a more equitable trading regime is ongoing. The Doha Development Agenda acknowledges “the particular vulnerability of least-developed countries and the special structural difficulties they face in the global economy” (WTO 2001, paragraph 3). After a decade of half-hearted trade negotiations, a new agreement is at hand. It is important that the trade talks proceeding at the regional level (between North America and Europe, and Asia-Pacific) not detract from the full and effective implementation of the Doha round. It is in the collective interest that international trade be

---

<sup>1</sup> For a critical analysis of the multilateral trade system as a global public good, see Mendoza (2003), and Mendoza and Bahdur (2002).

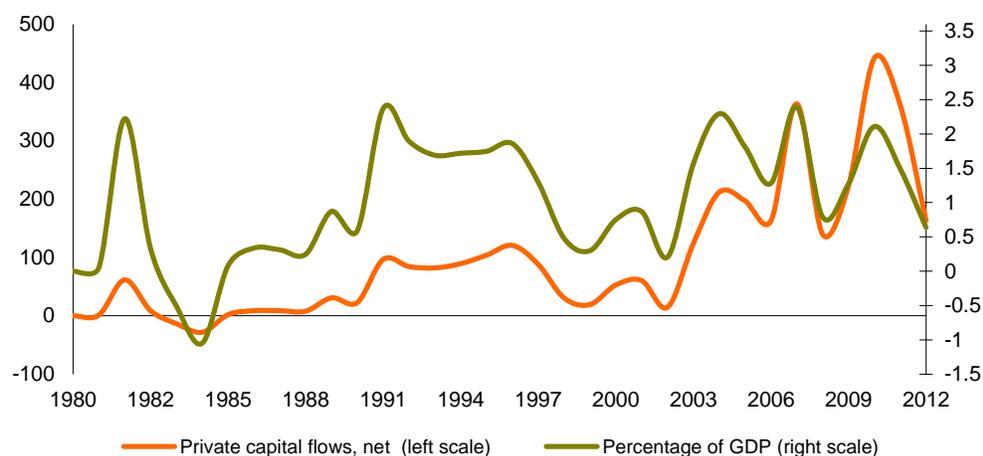
a global public good and not a ‘club good’ benefitting mainly a few club members of regional schemes.

## FINANCIAL SYSTEMS

International finance is an important dimension of global connectivity. Cross-border financial transactions comprise foreign direct investment and indirect portfolio investment; financial derivatives; international reserves; and other transactions on the external account (in other words, loans and deposits, bank capital, trade credits and government flows). The rapid expansion of private capital flows since 1980 (see figure 8), has dwarfed official flows, and has fuelled investment, trade and world economic growth. Although the latter group is beneficial, reliance on private capital flows has also increased trans-border vulnerability.

**Figure 8: Private capital flows to developing countries**

*\$ billions, percentage*



Source: UNCTAD, <http://unctadstat.unctad.org>.

Foreign direct investment is more stable than portfolio investment and debt-creating finance, but all capital flows are volatile, for all groups of countries (Bluedorn et al. 2013). As opposed to official finance, private capital is attracted by returns and deterred by risk. Particularly in developing countries, cross-border financial flows tend to be pro-cyclical: Capital pours in during economic growth and gushes out in downturns. The implication is that a loss of market confidence can disrupt financial flows, undermine exchange rates and provoke economic contraction, with contagious effects across countries. That is what happened in July 1997 in East Asia.

The 1997 Asian financial crisis was unexpected as the countries were in good economic health (for example, in terms of fiscal balance, monetary restraint and low inflation). The countries were

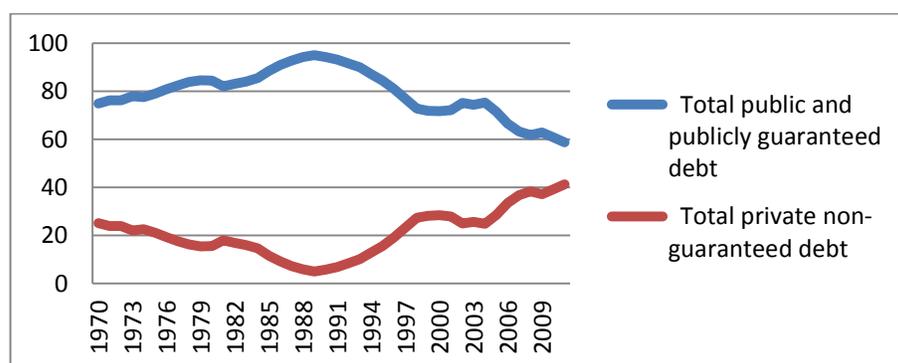
absorbing large capital inflows, however, particularly short-term borrowing that was fuelling speculative and highly leveraged asset purchases in stock markets and real estate. When economic activity slowed, due to external shocks from currency devaluations in China and Japan, and a fall in terms of trade, asset prices softened and capital inflows became outflows, triggering the fall of the *baht*, the national currency of Thailand. Foreign credit dried up, stock markets dived, banks closed, companies failed, property prices dropped and economies contracted—all severely. The contagion spread throughout the region. The Bretton Woods institutions, designed for an earlier era of sovereign finance, were ill equipped to assist.

Human development was set back in Indonesia, Malaysia, the Republic of Korea and Thailand. Poverty increased; unemployment rose among vulnerable groups (youth, older persons and women); household spending on health fell; and there was a rise in gender-based violence, divorce rates and child abandonment (Jones and Marsden 2010). In all countries, income inequality worsened, and the proportion of populations living below the poverty line increased, to as much as 27 percent in Indonesia. All countries slipped backward in their Human Development Index rankings. Even today, some 16 years after the Asian crisis, Indonesia, Malaysia and Thailand have not recovered their pre-crisis ranks.

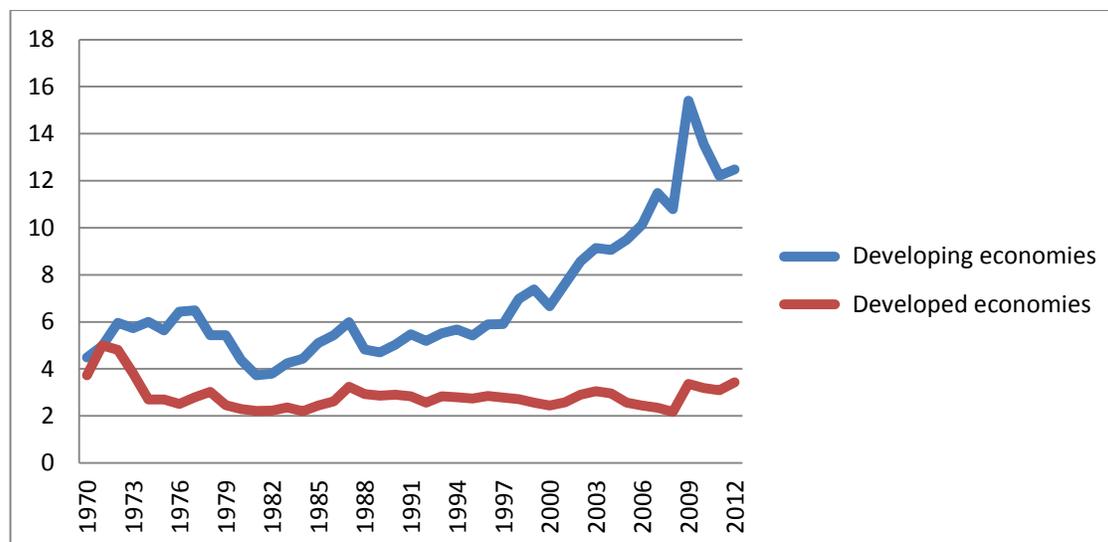
In the aftermath of the Asian financial crisis, several national and regional actions were taken to protect, mitigate and adapt to shocks posed by this kind of trans-border financial vulnerability. At the national level, bank regulation and capital controls were tightened. Governments have, generally, reduced their debt exposure on publically guaranteed external debt (see figure 9). They have also increased their accumulation of foreign exchange reserves (see figure 10).

**Figure 9: External long-term debt of developing countries**

*Percentage of total long-term debt*



Source: UNCTAD, <http://unctadstat.unctad.org>.

**Figure 10: International reserves***Number of months of imports*

Source: UNCTAD, <http://unctadstat.unctad.org>.

At the regional level, several financial arrangements include the Chiang Mai Initiative, which has evolved into a \$240 billion multilateral currency swap facility for the 10 countries in the Association of Southeast Asian Nations (ASEAN) plus China, Japan and the Republic of Korea.<sup>2</sup> Similar arrangements now exist in other developing regions (UNDP 2013, pp. 113-114).

The vulnerabilities in the international financial system reappeared in 2008, this time when a bank failure in New York shook financial capitals and led to a still lingering global recession. Interestingly, many developing countries proved relatively resilient this time around (De Gregorio 2012). Their stable macroeconomic situation and stockpile of reserves allowed policy space for monetary and fiscal stimulus. They had prudential bank policies and capital controls in place. In addition, commodity producers in Africa and Latin America enjoyed rising export receipts. South-South trade and cooperation has contributed to their resilience.

The full effects on human development of the 2008 financial crisis are still playing out. The basic transmission channel was from the financial sector to the real sector to the household. Thus, the contraction of bank activity curtailed business activity, disrupted labour markets, increased unemployment and squeezed household expenditures. At the same time, property and asset markets

<sup>2</sup> ASEAN comprises Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam.

plunged and credit tightened, squeezing household savings and borrowing capacity. These processes ensued globally, through market connectivity and financial contagion. The collective household—the state—was not spared: Public revenue fell with the economic downturn, and public expenditures were cut back wherever policy space was judged tight.

Within two years, the number of unemployed increased by 30 million persons worldwide (IMF and ILO 2010); this figure has not subsided even five years after the onset of the financial crisis (ILO 2013b). The unemployment rate for youth doubled in many countries, and the duration of unemployment was prolonged. Impacts were concentrated in developed countries, with longer term fallout ranging from loss of earnings and experience for the unemployed, to loss of social cohesion and secular stagnation of the economy, where growth rates remained below pre-crisis levels for a sustained period. There were instances of widening of wage and income inequality, an increase in poverty, deterioration in health and a rise in mortality rates among vulnerable groups. Youth unemployment globally is over 12 percent, and over 20 percent (or over 30 percent for young women) in the Middle East and North Africa (ILO 2013a).

The 2008 financial crisis prompted new forms of cooperation at the regional level, such as the European Stability Mechanism and Banking Union, and at the global level, notably, the Group of Twenty and Basel III, as well as more prudential national policies involving stricter bank regulation, supervision and compliance. Such efforts have opportunity costs: Bank deleveraging dampens economic activity within countries and creates negative spillovers for other countries (IMF 2012, pp. 76-88). Policy uncertainty in the major financial capitals can also reduce economic growth in other regions.<sup>3</sup> Large foreign exchange reserves could be better deployed for productive investment.

The overall multilateral response is widely seen as ‘muddling through’, and the financial architecture is yet to evolve towards a coherent regime, addressing the trans-border vulnerabilities of financial volatility and market disruption. Finance for infrastructure and development has been neglected. Regional financial mechanisms are seen as alternatives rather than complements. The collective spirit of Bretton Woods—to erect a new financial system—needs urgent revival.

## GLOBAL SUPPLY CHAINS

International production is another dimension of global connectivity. Foreign direct investment is considered a more stable and longer term component of international finance, bringing capital and

---

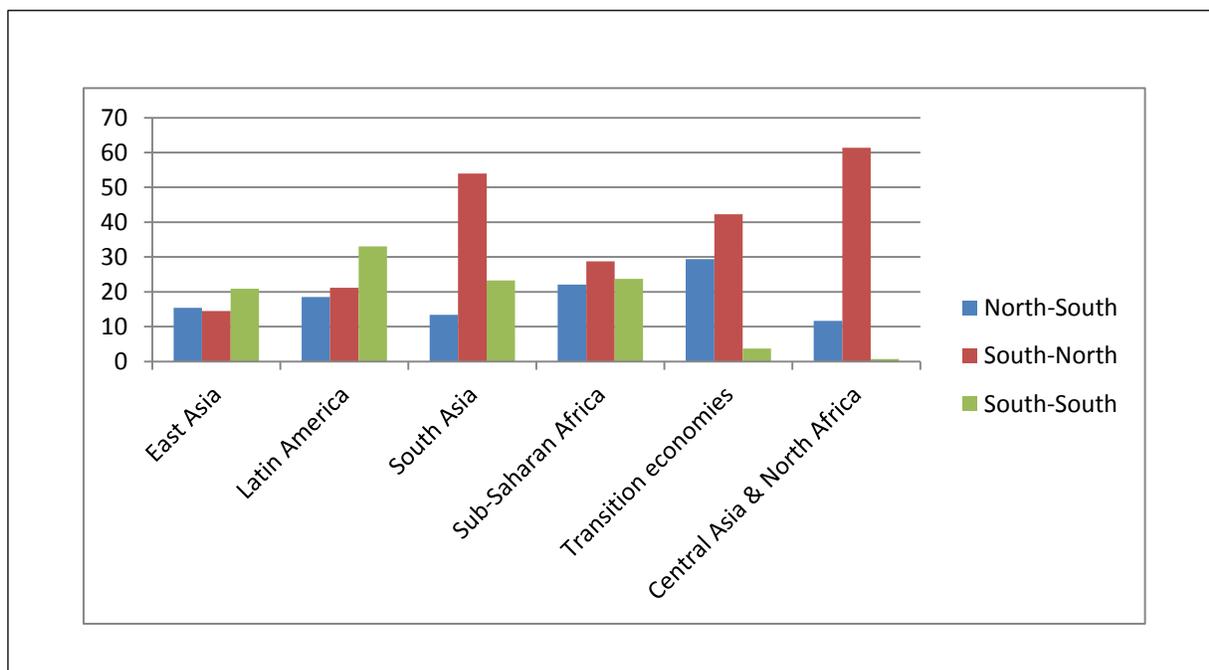
<sup>3</sup> On the trans-border effects of policy uncertainty, see the IMF (2013, pp. 70-78). That discussion concludes: “It is futile to attempt to disentangle the effects of policy uncertainty from other variables, but suggestive evidence indicates that a reduction in policy uncertainty in the United States and Europe in the near term may give an added fillip to global investment and output.”

technology into the receiving economy to create jobs, exports and growth. These benefits vary by sector—whether extractive, manufacturing or services—and the nature of the footprint within the host economy. The more dynamic investments create backward and forward linkages within the economy, and upstream and downstream linkups with global corporate networks and the rest of the world. The networks fragment production processes and distribute activities to locations where tasks can be carried out most efficiently. Such international production was a powerful catalyst for trade and development in Southeast Asia, allowing countries to industrialize and fostering regionalism (see UNDP 2013, chapter 2).

Through global supply chains, developing countries have been able to expand exports to developed countries in recent years despite weak consumer demand in mature markets (see figure 11). Supply chains can involve equity investment or can take other forms, such as contract manufacturing, outsourcing, franchising, licensing and management contracts. These latter forms alone generated, in 2009, global sales in excess of \$2 trillion; employed some 14 million to 16 million people in developing countries; and contributed as much as 15 percent to their GDP (UNCTAD 2011, chapter IV). Global supply chains are driven by lowest cost considerations, however, and can be temporary and opaque on workers' rights, and on health, environmental and safety standards. This is more likely for supply chains that extend beyond company networks.

Global supply chains can create several types of trans-border vulnerability. First, workers in mature economies are vulnerable to a loss of jobs from the relocation of production in sunset industries, and, now, to segments of industrial production that can be more efficiently (in other words, cost effectively) carried out in low-wage emerging economies. As already discussed, the appropriate policy response involves a mix of social protection and programmes to encourage innovation, worker retraining, job creation and productivity-enhancing investment.

Second, global supply chains can transmit shocks across countries. A recent example is the interruption in the supply of parts and components to manufacturers of electronics in East Asia and automobiles in the United States due to the tsunami in Japan in 2011 (Leckcivilize 2012). Another example is the disruption to air shipments of fresh produce from Africa and Latin America due to the volcanic eruption in Iceland in 2010.

**Figure 11: Growth in exports from the South to the North, 2010-2011 (percentage)**

Source: UNCTAD 2013a, p. 22.

Third, consumers are vulnerable to product mislabelling and adulteration. The most recent example is the discovery in 2013 of horsemeat in processed beef products marketed in the United Kingdom. It did not pose a threat to human life, but it provoked consumer backlash that forced retailers and distributors to offload inventory, and tighten corporate governance of European suppliers, which operated under lax national regulations for labelling and trans-shipment. This type of trans-border vulnerability is not insignificant: The intraregional supply chains within the European Union account for some 38 percent of its total trade (UNCTAD 2013b, chapter IV).

Fourth, governments are vulnerable to loss of revenue when companies transfer tax liabilities to low-tax jurisdictions. Transfer pricing has been a longstanding concern of developing countries. In 2008-2010, Africa lost \$38 billion per year due to mispricing, which was more than the region's receipt of official development assistance.<sup>4</sup> Elsewhere, legislators in the United Kingdom and United States conducted public hearings in 2013 on corporate tax avoidance, and deplored how global companies (like Apple, Amazon, Starbucks and others) legally exploit differences in national regulations to minimize payments.

<sup>4</sup> Studies by Global Financial Integrity cited in Africa Progress Panel (2013), p. 65.

Fifth, workers in developing countries are vulnerable to exploitation. These trans-border vulnerabilities principally arise at hidden stress points, as when competitive pressures gravitate down supply chains and fall heavily on low-skill operations, resulting in low wages, long working hours and unsafe workplaces running under tacit government neglect. The vulnerabilities become apparent ex post when things go wrong, as when buildings collapse or factories burn down with considerable loss of life. Attributing fault is difficult as the fragmentation of production diffuses responsibility for corporate governance.

Governments understandably want to encourage private enterprise, but in the process have tended to give industry free reign, through deregulation, privatization, financial incentives and lax application of public ordinances. Many multinational companies have codes of conduct, but these encompass mainly their own branches and affiliates and not always second-tier or other suppliers (UNCTAD 2012).

The lax posture—of governments and companies—is now beginning to change, prompted by investigative reporting, civil society advocacy and consumer backlash. The adulteration of food supply chains in Europe was reported to cross 14 countries. Spurred by public outcry, a collective response is now being considered in the European Union. In the apparel industry, civil society groups and trade unions have successfully challenged the corporate sector to improve governance of supply chains: The Clean Clothes Campaign enlisted 89 retailers to sign a legally enforceable Accord on Fire and Building Safety in Bangladesh.<sup>5</sup> The garment industry has been a point of entry for the industrialization of many countries, from the Republic of Korea to the United Kingdom. With appropriate governance, global supply chains can be transformed from a potential source of trans-border vulnerability to one of industrial resilience (see figure 12).

At the regulatory level, in a follow-up to the legislative public hearings on corporate tax avoidance, a harmonization effort is now underway in the Group of 20 to address trans-border vulnerability. Other proposals deserve similar consideration, such as that of the Africa Progress Panel (2013) to address tax evasion on corporate revenues from oil, gas and mining operations in Africa. A broader, more coherent effort is needed, including revisiting past multilateral attempts to devise inclusive codes of conduct for an international investment regime.

---

<sup>5</sup> The accord was issued on 12 May 2013; see: [www.cleanclothes.org/img/pdf/accord-on-fire-and-building-safety-in-bangladesh](http://www.cleanclothes.org/img/pdf/accord-on-fire-and-building-safety-in-bangladesh).

Figure 12: Global supply chains can be a point of entry to higher value production



## MIGRATION

Movement of people is inherent in global connectivity. As in the case of trade and capital flows, the mobility of people across borders benefits both countries of origin and destination. The homeland receives remittances and related benefits of an enlarged diaspora. The receiving country acquires skills and reaps future income streams and productivity growth. In the process, the world gains as people achieve their individual potential.

The general trend is of people migrating from developing countries to developed countries in search of better livelihoods. Migration from the South to the North doubled in the past two decades (IOM 2013). There are significant and increasing numbers of persons migrating within the developing world, however, and there is migration from the North to the South. Estimates suggest that there were some 215 million migrants in 2010; 80 percent originated in developing countries; 60 percent of the total went to developed countries and 40 percent to developing countries. Undoubtedly, there are many more people who would like to migrate.

Migration is a capability that people acquire, along with other capabilities, through human development. In stylized profile, many migrants are skilled, and some are trained nurses, doctors

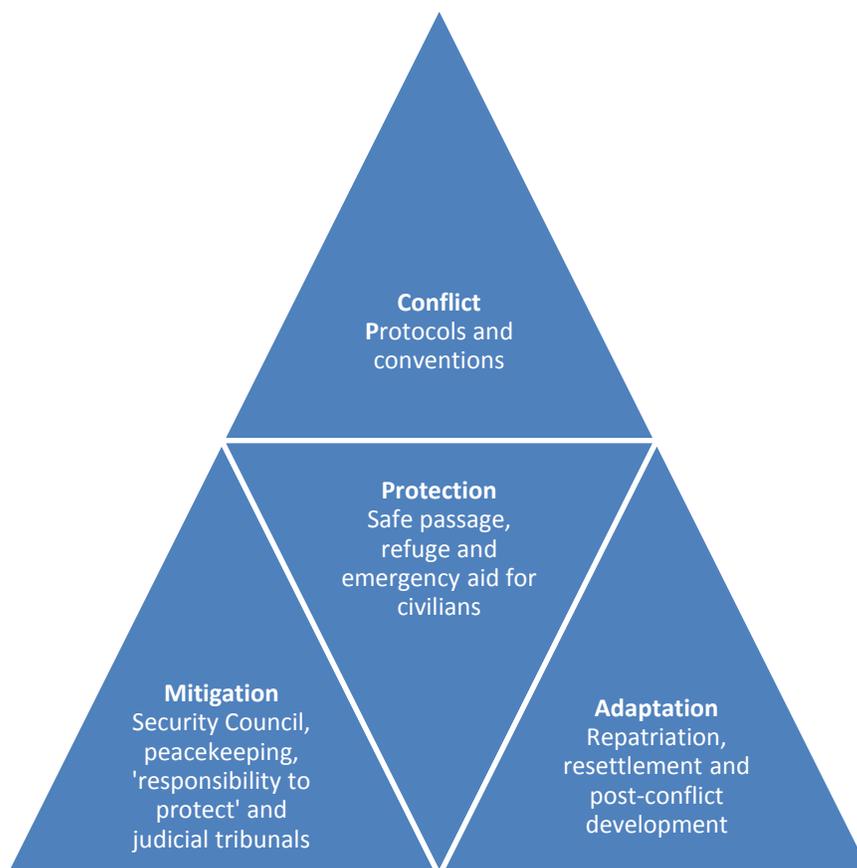
and engineers. They also may accept jobs below their skill level and be prepared to work their way up the pay scale; in some extreme cases, it might mean working one's way out of servitude. They have a high propensity to save, as reflected in the very large remittances they send back to their native countries, often at high transaction costs.

Migration is not a new or strictly trans-border phenomenon. *Homo erectus* migrated from Africa to Indonesia a million years ago (Diamond 1998). Rural to urban migration is a common feature of the economic development of all countries. Migration also has a dark side in the slave trade of earlier generations and the human trafficking of the current period. Driven by potato famine in the 18<sup>th</sup> and 19<sup>th</sup> centuries and other pressures, there are more people of Irish origin living outside Ireland than inside. There were mass migrations from Europe to America and within Asia in the 19<sup>th</sup> century.

A special category of migration stems from armed conflicts and the collateral damage on civilian populations fleeing harm and persecution. The Second World War displaced 50 million persons and, for the first time, motivated countries to address the matter collectively as a trans-border issue. A convention on the status of refugees was adopted in 1951, and refugee agencies were created (the United Nations Relief and Works Agency for Palestine Refugees in the Near East in 1948, and the United Nations High Commissioner for Refugees in 1950). Their primary objective is to provide protection to vulnerable persons displaced by wars and conflicts. The 1951 Convention Relating to the Status of Refugees established the principle of non-refoulement, which is a generally accepted basis for countries to grant entry to individuals fleeing persecution. The refugee agencies also support the adaptation needs of refugees through programmes of repatriation back to countries of origin and resettlement in third countries. Multilateral and bilateral agencies deliver additional support through post-conflict development assistance. The United Nations Security Council and peacekeeping operations offer mitigation action against the spread of conflicts and wars. The International Court of Justice and judicial tribunals are an added deterrent. Thus, an international policy framework of sorts has evolved (see figure 13).

Conflict situations have traditionally been viewed as matters within the purview of national sovereignty, but when these endanger civilian lives and destabilize a region, there is a 'responsibility to protect'. In this century, communications media and civil society mobilized public consciousness and helped build consensus on the case for collective intervention in conflict situations to stop genocide, war crimes and mass atrocity. The 'responsibility to protect' was recognized by the United Nations at the 2005 World Summit. It is a potentially powerful instrument to mitigate the trans-border vulnerability from national conflicts.

**Figure 13: Policy actions on armed conflicts**



The number of persons displaced by conflict has increased in recent years and is the highest in nearly two decades (see figure 14). Most displaced persons reside in developing countries but desire permanent resettlement, including through migration. Hence, migration is likely to increase, and through increasingly desperate means.

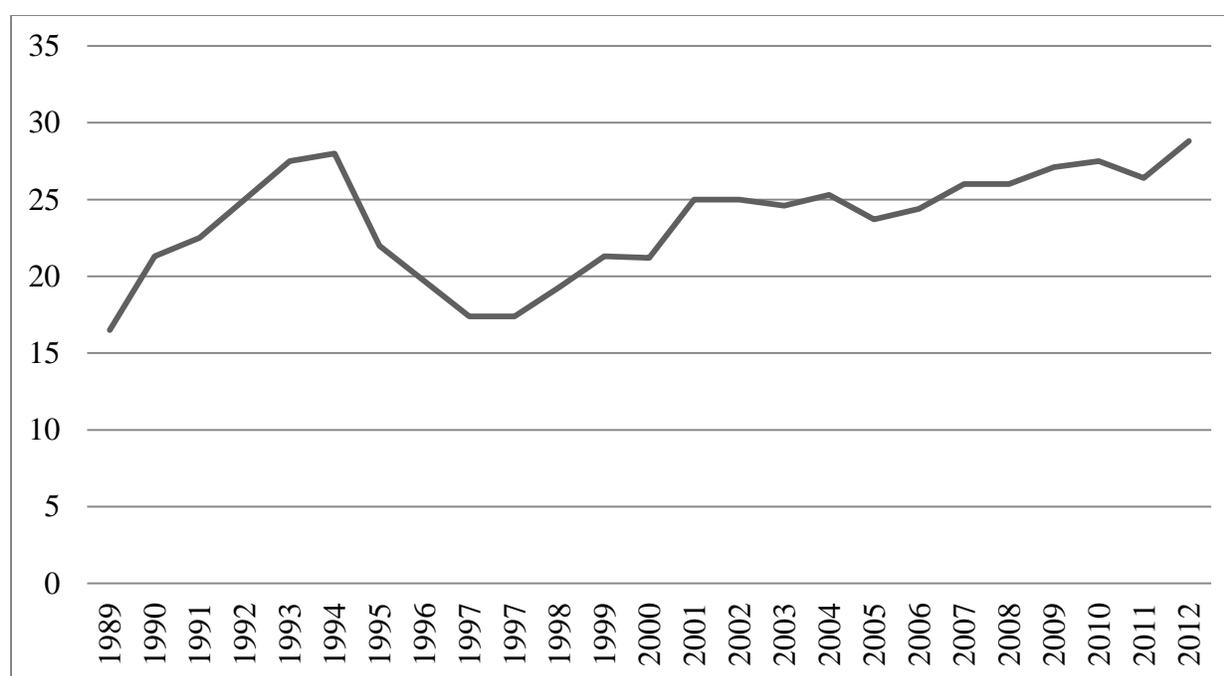
Nations have generally maintained open borders, but sentiments are changing. Increasingly, migration is seen as a vulnerability, with large inflows perceived as crowding out the native born from segments of the job market, overwhelming social systems and straining public services.

Immigration rules have tightened, migrants are denied rights, families are separated and boat people are left to drift at sea. Instances of refoulement have increased. But still people come, fleeing armed conflict, natural disasters or inequities.

It is important that migration be seen as a trans-border vulnerability to be addressed not by individual countries but collectively through an international regime on migration. In its absence, national regulations are becoming dysfunctional in handling the multiple categories of immigrants,

non-immigrants and illegal immigrants, and of refugee, displaced and stateless persons. There is a need to develop consensus among countries on treating migration as a global public good, and to codify shared interests and common goals, particularly involving protection of human rights, reduction of costs of migration and remittances, and improved public perception. Civil society and non-governmental organizations have engaged governments in dialogue and cooperation on particular issues, such as trafficking in persons. A broader approach is needed, building on this progress and involving norm setting and the elaboration of an international regime on migration. The recent United Nations dialogue on migration is a welcome initial step (see United Nations 2013).

**Figure 14: Persons displaced by conflict and persecution (millions)**



Source: Internal Displacement Monitoring Centre ([www.internal-displacement.org](http://www.internal-displacement.org)).

## COMMUNICATIONS

A key question posed at the turn of the century by the 2001 Human Development Report (UNDP 2001) was whether new technologies and technology networks would aggravate the North-South income divide with a corresponding digital divide *or* enable countries to catch up more quickly as people seized the potential of connectivity to boost human capabilities and achieve more rapid development.

The experience of this first decade has been overwhelmingly positive. The digital divide is narrowing and may soon cease to exist.<sup>6</sup> New technologies have played a key role in the manufacturing and export success of East Asia. Low-cost telecommunications infrastructure (relative to landlines) has lowered the threshold for economic activity. Affordable Asian-built handsets are in daily use: Workers in urban areas are communicating with families in rural areas; people without access to formal bank facilities are remitting funds through cellular-banking; farmers and fishermen are obtaining weather reports and checking market prices; and entrepreneurs are providing business services through kiosks (Hamdani 2013).

Communications technology has enhanced human capabilities across income classes, enabling people to: access knowledge of generic medicines, better seeds and new crop varieties; start businesses and initiate commerce; and exercise social and political freedoms. These benefits cut across income classes, reaching down to marginal and vulnerable groups, and promoting gender equality and financial inclusion. The greater purchasing power of people has given market capability to the 'bottom billion'. Clearly, there is great demand: There are today more mobile subscriptions in sub-Saharan Africa than in the entire European Union.

At the same time, the digital revolution has quickened the pace of change, for economic activity, political institutions, societal systems and family structures. The ensuing pressures for change create vulnerabilities. Governments can facilitate the transformation by cultivating shared norms and values, and nurturing rules and institutions that promote inclusion and equal opportunity, and build trust and cohesion (UNDP 2013).

Change is a difficult process to manage, however. Rapid communication has made change contagious. Social media can galvanize grass-roots action by youth, workers and the disenfranchised, which can be unsettling for the *status quo*, as shown by the Arab Spring, street protests in London and the movement to occupy Wall Street. The vulnerabilities are felt across borders. During the Arab Spring, a number of governments in the region provided cash handouts to their own citizens, raised salaries of civil servants and bolstered social welfare programmes (see table 2). Whatever the intent, and however belated the response, such actions can be effective if followed through with more sustained efforts to build human capabilities and expand opportunities for decent work.

Ideally, change management should be proactive rather than reactive. In the face of increasing disparities and injustice, an enlightened case can be made for universal provisioning of public services and merit goods by governments and other stakeholders. It is common for governments to

---

<sup>6</sup> IBM predicted in 2011 that the digital divide will cease to exist in 5 years: on current trends, 80 percent of the current world population will have a mobile device. See the IBM 5 in 5: <http://asmarterplanet.com/blog/2011/12/the-digital-divide-will-cess-to-exist.html>.

subsidize prices of food and fuel, and to set a minimum wage. Prompted by media attention and consumer boycotts, multinational corporations have improved wages and working conditions of workers on supply-chain assembly lines and garment sweatshops. More proactively, the private sector has innovated under the social enterprise business model, which markets fair trade products that consumers willingly purchase at a premium with the satisfaction that this remunerates decent work.

**Table 2: Government response to trans-border vulnerability to the Arab Spring**

<b>Algeria</b>	\$156 billion on new infrastructure projects; tax cuts on sugar
<b>Bahrain</b>	\$100 million to families (\$2,500 per family)
<b>Jordan</b>	Salary increase for civil servants and military personnel; tax cuts on fuel and food; more money to National Aid Fund for the poor
<b>Kuwait</b>	\$4,000 per citizen; free food for 14 months
<b>Libya</b>	\$450 per family; 150 percent wage increase for some public sector workers; abolition of taxes and duties on food
<b>Morocco</b>	'Compensation system' for wheat importers
<b>Oman</b>	Monthly minimum wage increase from \$364 to \$520; 50,000 new government jobs; monthly stipend of \$390 for job seekers
<b>Saudi Arabia</b>	15 percent pay rise for public sector workers; unemployment benefits; affordable housing subsidies
<b>Syria</b>	Consumption tax cut on coffee and sugar; lower duties on food; more money to Social System Fund for the poor; higher wages; heating allowances for civil servants
<b>Tunisia</b>	Increased welfare spending; increased food price subsidies

Global communication has empowered civil society across borders. Non-governmental organizations with low overhead and small budgets can have global reach through the Internet. In 1992, six organizations launched the International Campaign to Ban Landmines.<sup>7</sup> The campaign, which spans 100 countries, won the Nobel Peace Prize for helping to enact the 1997 mine ban treaty.

<sup>7</sup> See: [www.icbl.org](http://www.icbl.org).

The grass-roots advocacy achieved in five years what governments had been discussing off-and-on for the 129 years since the Declaration of St. Petersburg in 1868.

Broadcast and news media lend immediacy to distant events. Live reporting of natural disasters—hurricanes, earthquakes and tsunamis—and of the plight of those affected transmits vulnerability on a mass scale. It can awaken a collective consciousness and provide impetus to action. Importantly, it can mobilize voluntary contributions for humanitarian relief and galvanize public support for development programmes.

Although the exercise of military intervention rests with the Security Council, communications media and civil society spur governments and the United Nations into action. The civil war in the South of Sudan simmered for years until global civil outrage prompted an externally brokered peace, a peaceful referendum and the independence of the Republic of South Sudan in 2011.

The contemporary communications infrastructure is the Internet, which was established as a global public good in the mid-1980s through public and private funding dating back to the 1960s. It operates as a non-profit, globally distributed, multistakeholder network outside an international governance framework. It is largely independent of government influence, although it operates centrally under the noblesse oblige of the US government, and nationally under the oversight of the respective national governments. The 2005 UN World Summit on the Information Society established the multistakeholder Internet Governance Forum to discuss policy issues.

Although the Internet is a global public good, its goodness rests on the integrity and goodwill of governments. Governments can block access within their borders. They can police the independent service providers in their jurisdictions and punish cyber-crime or allow it to flourish. Governments cooperate on cyber-security, particularly on purging child pornography and terrorism. There are also covert activities involving industrial and political espionage, and cyber-warfare (as when the Stuxnet computer virus was used to infect control systems and cripple nuclear facilities in Iran). Clearly, there are trade-offs between the free flow of information, individual privacy, social welfare and the national interest. It is in the global interest that the Internet be used for the greater public good, to expand individual freedom and trust among countries.

## Conclusion

Trans-border vulnerabilities are becoming more significant with the deepening of globalization and the increase of world population. People are more mobile and countries more interdependent; in the process, they are vulnerable to their increased interactions. Natural events also have greater impact in a more a populous and built-up world (see annex 1 on natural disasters). Additionally, greater

human activities affect natural ecosystems in ways only now being understood (see annex 2 on climate change).

An increasingly interconnected world of markets, financial systems, communications and new actors—emerging economies, non-governmental organizations, private sector firms and civil society interests—is challenging individuals, nations and institutions to face fresh realities continuously. Some threats have been faced before and can be avoided (such as protectionism) or overcome (such as cyclones), and others require more imaginative and bolder solutions (such as vaccine discoveries and technological breakthroughs). People live with vulnerability until they devise a way to be resilient to it. Such is the nature of human progress.

When vulnerability is trans-border, it is more appropriately addressed, whether individually or collectively, within a global framework of principles, rules and institutions that enlarges the policy space for one and all. Such a framework is a global public good. Abiding by traffic signals—stop on the red, go on the green—averts accidents and speeds transit. Trade rules, financial regulation and codes of conduct serve a similar purpose. Each is a public good.

Some trans-border vulnerabilities can only be addressed collectively. Take the case of smallpox, a deadly, disfiguring and contagious disease that claimed millions of lives around the world for more than 3,000 years. There is no cure but, as human beings are the only carriers of the infection, mass prevention can eradicate the disease. Although a vaccine was discovered in 1796, it took another 180 years to eradicate smallpox. Initial attempts relied on national programmes, which were first voluntary and then mandatory. By 1900, many developed countries had eliminated smallpox within their borders, but continuous vaccination was needed to prevent reintroduction from abroad. In 1948, the World Health Organization (WHO) was established, and in the 1950s and 1960s various national and regional programmes were launched in developing countries, but smallpox was still endemic. In 1966, the WHO Assembly approved—by the slim margin of just two votes—a global programme to eradicate the disease. All countries engaged in universal vaccination, vigilant surveillance of new cases and containment of sporadic outbreaks. By 1977, the last known carrier of the infection was diagnosed and isolated in Somalia. Every man, woman and child was inoculated. In 1980, the WHO declared smallpox eradicated. With no more carriers, vaccination is no longer necessary even though there is as yet no cure. The cost of the smallpox campaign was minimal, but it did require the institutions and political will for global collective action.

Acting in concert is not instinctive. In the face of imminent danger, the natural refrain is ‘every man for himself’. Even when collective action is patent there is still a need for a global framework of principles, rules and institutions to ensure coherent action. Without the WHO, the eradication of smallpox was not possible. When people act by shared protocols, their individual capabilities and

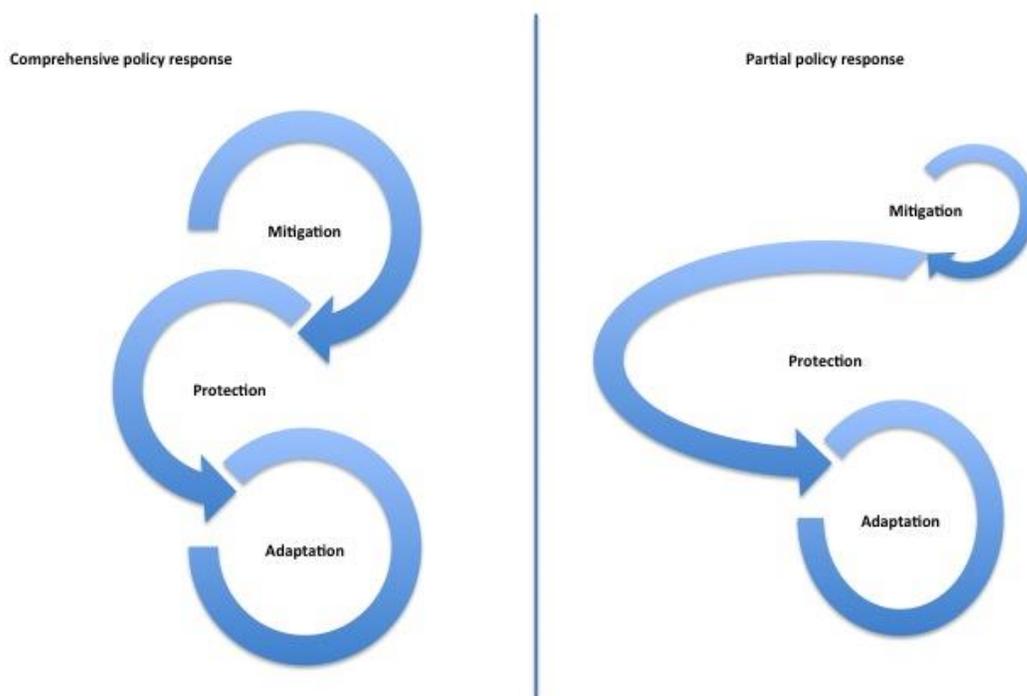
choices align to overcome threats, and their combined resilience deepens development progress and makes it more sustainable.

The considerable advance in human development of past decades is in large part due to multilateralism. Sustaining that advance in the future will require concerted action of a high order on a broad agenda—ranging from financial crisis to climate change—in an increasingly complex and interconnected world. Connectivity can be a catalyst, however, in several ways. Markets, social networks and the communications media have made the private sector and civil society key players and, in some areas, lead actors. Communications media capture public attention and spur governments into action. Non-governmental organizations are important providers of development assistance and humanitarian relief. Civil society activism has championed human rights and corporate social responsibility. Global companies are partnering with local companies and other stakeholders to create shared value for the larger community. Emerging markets have incubated entrepreneurs and microenterprises innovating affordable goods and services suited to the needs of their expanding middle class and neighbouring markets. The global economy is rebalancing, and countries, developing and developed, are taking turns sustaining growth in a more inclusive world.

The implications for multilateralism are several. First, *multilateral action warrants a comprehensive view* that extends beyond immediate threats and shocks, and addresses underlying causes and longer term impacts. Vulnerabilities are exposed by shocks but generated by fundamental forces that can be anticipated, mitigated and accommodated through adaptation. It is natural to respond to a crisis when a shock occurs, but, too often, policy makers do not follow up with a more comprehensive response to future crises. Over time, as crises recur, the multilateral machinery gets oriented towards protection and emergency responses, and perhaps also some adaptation, but neglects mitigation (see figure 15). In such situations, shocks re-emerge with potentially larger impacts due to increasing connectivity and population growth, and the scope and costs of protection enlarge, while trans-border vulnerabilities deepen. Such multilateral policy actions are necessary and well intended, but short-sighted.

Consider the familiar debate of growth versus development. In the 1950s and 1960s economists, policy makers and multilateral institutions oriented their attention towards economic growth and resource transfers to bridge domestic financing gaps. The human development approach broadened the policy focus from economic growth per se to the building of capabilities, and multilateral institutions have reoriented their assistance programmes in fundamental ways. The World Food Programme and other agencies continue to provide emergency food aid in response to famine, but now do so in ways that bolster the capabilities of affected populations living in poverty. The Millennium Development Goals reflect the common understanding of a comprehensive view of development. A global view on financial instabilities and other threats is needed.

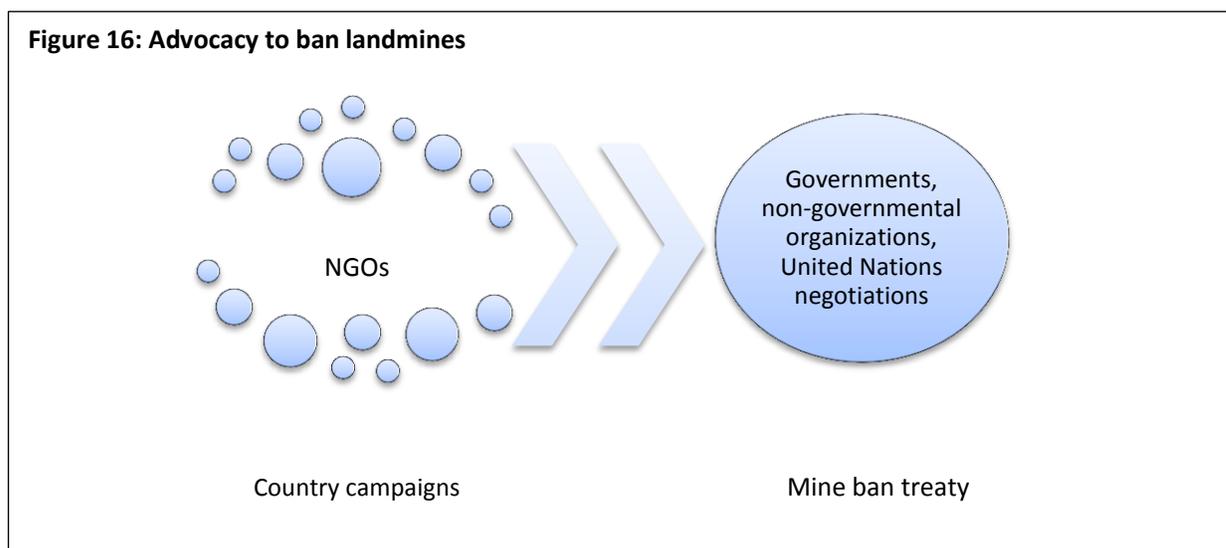
Figure 15: A variety of policy responses



On the emerging issue of climate change, the Intergovernmental Panel on Climate Change (IPCC) and its worldwide scientific network have developed a comprehensive and collective knowledge of the global character of climate change—its cause, imminence and potential impact worldwide. The international community is now tasked to reorient multilateral institutions towards sustainability. The framework for humanitarian response is operational and will need scaling up to address the magnitude and range of expected protection actions. On adaptation, there is a need to operationalize the Green Climate Fund aimed at mobilizing \$100 billion of private and public finance by 2020, and various policy frameworks and partnerships, as on energy, water and the like. This is by no means easy, but it is straightforward. The main challenge, however, is to devise mechanisms to facilitate actions for mitigation (see annex figure A2). There is the classic problem of market failure: imputing costs and benefits to incentivize actors to move towards a low-carbon economy. That requires renewal of the Kyoto protocol, industry guidelines and reactivation of carbon markets for emissions trading. There are also problems of moral hazard—incomplete information to make an

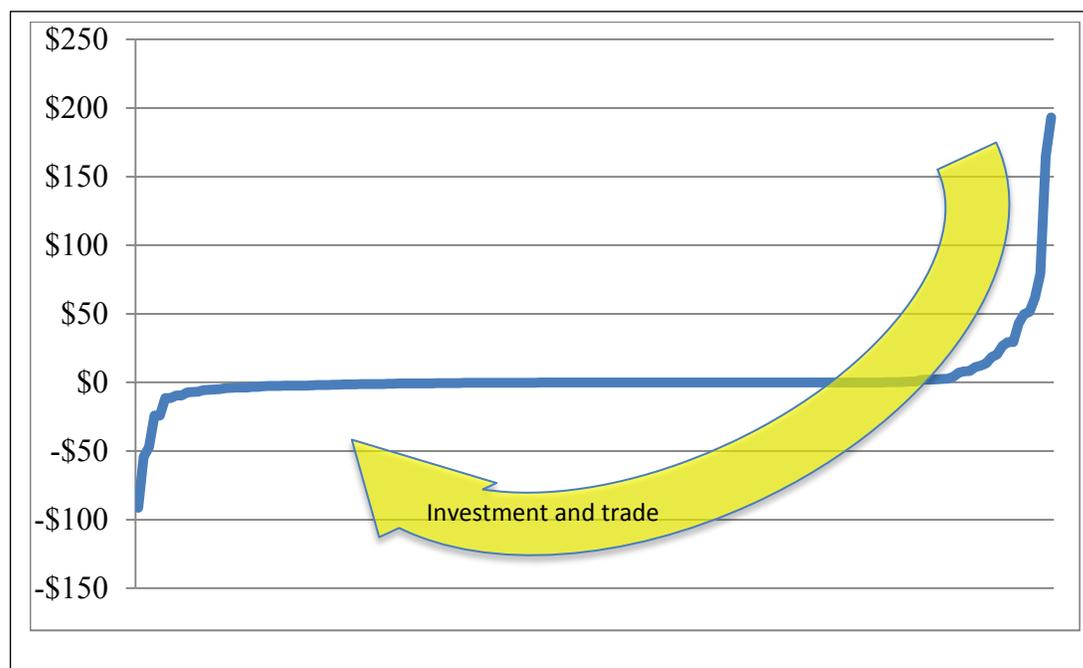
objective decision—and freeriders—‘it’s somebody else’s problem’. These complications are best addressed by treating some mitigation actions as global public goods, undertaken in the context of public-private partnerships and cooperation on technology development and the like.

Second, multilateral action warrants stakeholder involvement. Science and common understanding can pave the way for decision-making, but that is a political process, which can stall with competing national self-interests and short-term considerations. Again, crisis can precipitate political will or the impetus can come from other actors (see figure 16). The impacts of trans-border vulnerability on people’s livelihoods, security and well-being can rally non-governmental organizations, civil society, trade unions, the private sector, legislators and even individuals. They do not necessarily speak with one voice, but their involvement can propel governments towards action. It is important that multilateral processes be inclusive, engaging all actors and stakeholders. The United Nations needs to be less a closed council and more an open forum.



Third, multilateral action can proceed at different levels—bilateral, regional or global—and all are desirable, but ideally these should converge towards a larger coherence. In trade, regional arrangements should be building blocks, not stumbling blocks, towards a more open and equitable international trading system. In finance, the clashing national approaches to stimulus and austerity warrant an affirmative realignment towards a higher growth and employment trajectory.

An alternative to the accumulation of excessive foreign exchange reserves by developing countries is to expand South-South cooperation. Many developing countries are maintaining stable current account balances and could be more expansionary, especially if a portion of the surplus of other developing countries were available to finance productive investment and trade within the South (see figure 17).

**Figure 17: Potential to recycle surplus of developing countries for trade and investment***UNCTAD data, current account net, 2012, billions of dollars, of developing countries*

On investment, the legacy of the many bilateral tax treaties is a complex lattice of rules and exceptions that global corporations manipulate to their advantage to avoid taxation. The harmonization effort now underway in the Group of 20 to address this trans-border vulnerability should also encompass broader issues, such as tax evasion on corporate revenues from resource extraction in Africa. The several successful initiatives to raise health, environmental and safety standards in corporate supply networks, and the ongoing national efforts to regulate bank excesses, constitute useful steps towards a more general framework of corporate governance. The time may be opportune to revive multilateral discussion on an international investment regime.

Fourth, multilateral organizations can exercise leadership, working in greater partnership to spearhead flagship projects and pioneer new modalities for collective action, globally and regionally. The international community faces many distractions—economic troubles, armed conflicts and discord among major powers—and there is little political will to address global problems and long-term challenges. The United Nations, as well, is encumbered with immediate matters of funding shortfalls and escalating demands for humanitarian relief. Nevertheless, United Nations entities and specialized organizations, working in partnership with civil society, have sustained belief that poverty can be eliminated worldwide. They have also advocated for soft issues to be transformed into

hard universal objectives: the integration of human rights, inequality and sustainability into new sustainable development goals. They can do more. They should make a special effort to entice emerging economies to play a greater role in their activities and governance, and in development cooperation generally.

The United Nations has legitimacy and a convening power that should be exercised in the years ahead. Vulnerability has an upside: It is a powerful impetus to act and rectify. An increasingly interconnected world has reinforced the need and capacity of nations to address vulnerabilities across borders in a global context, in line with common goals and multilateral frameworks. These latencies need activation. Financial systems can be better regulated. Trade talks can be unblocked. Corporate conduct can be subject to codes and standards. Climate change can be mitigated. These processes exist at some level and need reinvigoration; others (like migration) need starting up. Multilateral organizations need to be forthright custodians of multilateralism.

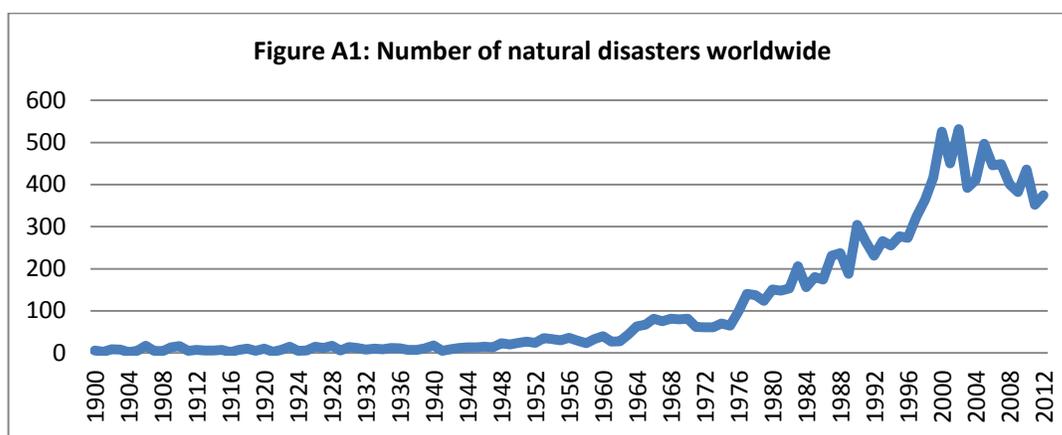
## Annexes

### ANNEX 1: NATURAL DISASTERS

When the volcanic island of Krakatoa erupted in 1863, causing massive destruction and loss of life in the Indonesian archipelago, volcanic ash fallout darkened skies around the world for many months. Trans-border vulnerability was so intense that in Norway, some say, the ensuing sense of foreboding and fear was captured in Edvard Munch's painting of *The Scream*. Disasters still evoke shock, but the deep sense of helplessness has given way to a more resilient response, thanks to greater understanding of the phenomena and a greater capacity to respond, individually and collectively—an indication of human development progress.

Natural disasters might not be preventable, but they can be monitored, and early warning systems can save lives. When Eyjafjallajökull erupted in Iceland in 2010, there was no loss of life: Ongoing monitoring of seismic activity provided advance warning; rescue services and emergency plans were put into effect to evacuate the local population overnight; and the airspace in some 20 countries was closed. There was disruption—local livestock and property were destroyed, European air travellers were stranded, and fresh produce, awaiting shipment, rotted in Africa and Latin America—but there was no loss of human life. After the event, the President of Iceland, Olafur Grimsson, said: “Unfortunately, what we have seen in the last few days could only be a beginning of an experience which might be repeated throughout the twenty-first century” (BBC 2010). Referring to the larger Katia volcano, he added: “I think it is high time for European governments and airline authorities all over Europe and the world to start planning for the eventual Katia eruption” (ibid.). That counsel—‘high time to start’—applies to other areas as well, given the apparent rise in natural disasters (see figure A1).

The 1990s were designated the International Decade for Natural Disaster Reduction. It was only after the 2004 earthquake and tsunami in the Indian Ocean, however, that regional early warning systems were set up for the Indian Ocean, the North Eastern Atlantic and Mediterranean, and the Caribbean; these were added to the existing system for the Pacific Rim. The annual running cost of an international early warning program is about \$30 million, which compares well against the \$8 billion in aid donated in response to the 2004 disaster.



Source: Centre for Research on the Epidemiology of Disasters.

The policy options for natural disasters are more limited than other types of trans-border vulnerability. Natural disasters—earthquakes, tsunamis and volcanic eruptions—cannot yet be prevented nor the frequency lessened with mitigation (although severe storms, floods and drought linked to climate change can perhaps be mitigated). A variety of adaptation actions include disaster preparedness plans, and construction of resilient buildings and infrastructure. Early warning systems allow advance notice for implementing mass evacuation and other plans, and mobilizing emergency relief.

Even if natural disasters cannot be prevented, lives can still be saved. The death toll when Cyclone Phailin struck India in October 2013 was less than 50, thanks to global storm tracking systems and the advance evacuation of a million persons. In contrast, there were 10,000 deaths the last time a similar super cyclone struck in 1999 (Choudhury 2013).

## ANNEX 2: CLIMATE CHANGE

Natural disasters are preventable when they are manmade. Climate change is mainly caused by human activity: Carbon emissions account for 95 percent of the rise in global temperature since the 1950s. The longer term impacts—extreme weather, flooding of coastal areas, crop failure and others—will entail major adaptations in human activity, estimated to cost upwards of \$75 billion per year by 2050.

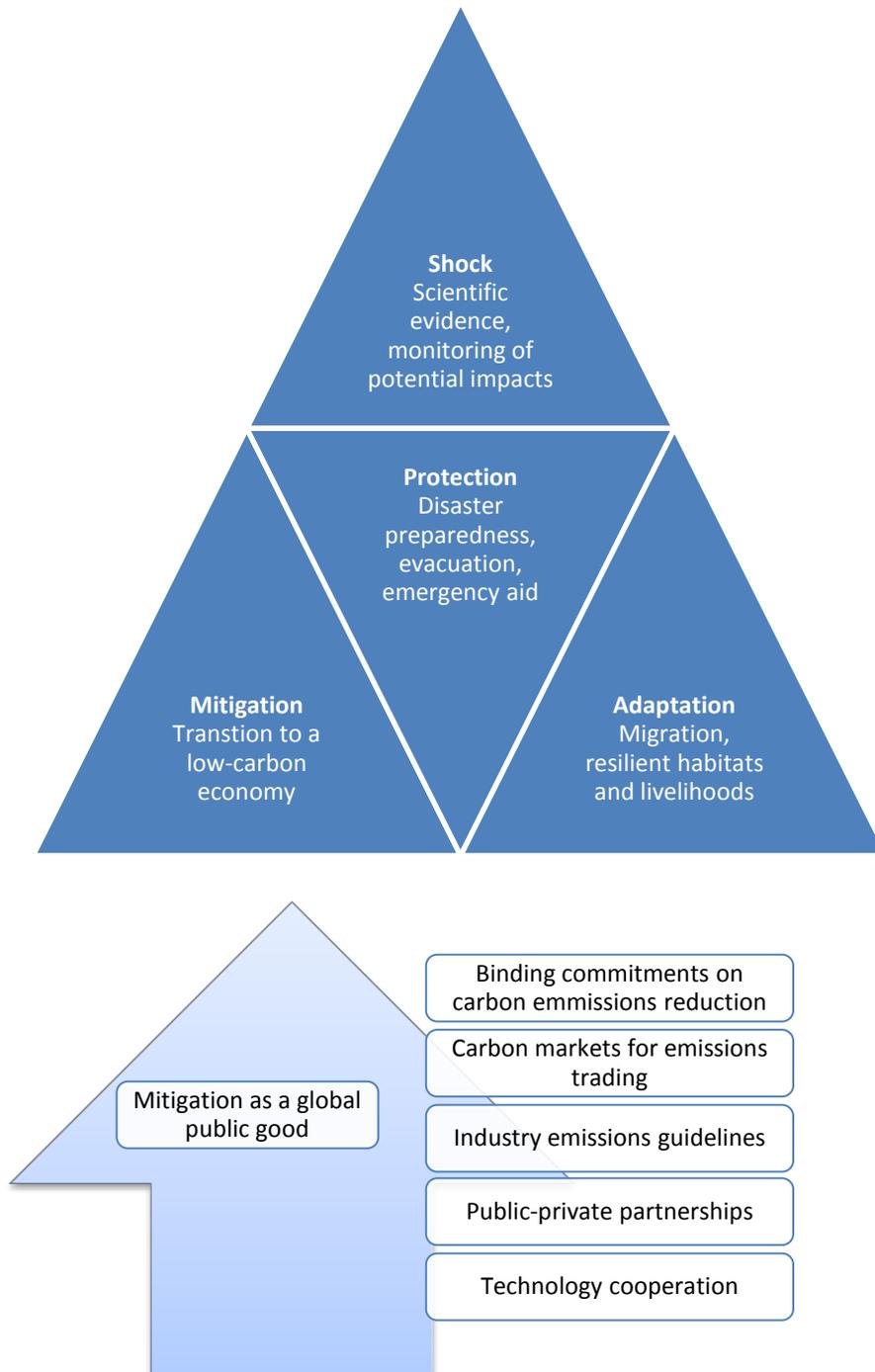
The IPCC compiled massive scientific evidence over a period of 25 years, but it was the violent storms, flooding and severe droughts experienced in many parts of the world in recent years that made real the vulnerability of nations to future climatic conditions. Governments, including in developing countries, have begun to announce plans and policies for mitigation and adaptation, and

the private sector is responding to consumer demand for green products, including electric automobiles.

Technological advances in solar cells, energy storage and lightweight materials are enabling a low-carbon economy, provided appropriate pricing and incentive mechanisms are put in place. A key factor will be the revival of the carbon market, which was on an encouraging rise until 2007, but volumes and prices have since declined. Demand for offsets under the Clean Development Mechanism has dropped back to 2004 levels (World Bank 2012), which is particularly unfortunate as African and least developed countries have entered the market as sellers, offering contracts for certified emissions reductions.

The European Union has included aviation in its emissions trading system. These and other national and regional initiatives will hopefully be made coherent with the completion of a multilateral post-Kyoto framework agreement (now scheduled for 2015), and its technology and funding components. A new agreement would provide an overarching framework for a variety of national and multilateral actions (see figure A2).

**Figure A2: Policy actions on climate change**



•

## References

- Abiad, A., and J. Bluedorn, J. Guajardo and P. Topalova. 2012.** "The Rising Resilience of Emerging Market and Developing Economies." IMF Working Paper WP/12/300. December.
- Africa Progress Panel. 2013.** *Africa Progress Report 2013: Equity in Extractives: Stewarding Africa's natural resources for all.*
- BBC. 2010.** *Newsnight*. 19 April. <http://news.bbc.co.uk/2/hi/programmes/newsnight/8631343.stm>.
- Berg, A. G., and J. D. Ostry. 2011.** "Inequality and Unsustainable Growth: Two Sides of the Same Coin?" IMF Staff Discussion Note SDN/11/08. 8 April.
- Bluedorn, J., and R. Duttagupta, J. Guajardo and P. Topalova. 2013.** "Capital Flows are Fickle: Anytime, Anywhere." IMF WP/13/183. August.
- Cariolle, J. 2011.** "The Economic Vulnerability Index 2010 Update." FERDI Working Paper 9. March.
- Choudhury, C. 2013.** "India Weathers Cyclone Phailin." Bloomberg. 16 October. [www.bloomberg.com/news/2013-10-16/india-weather-cyclone-phailin.html](http://www.bloomberg.com/news/2013-10-16/india-weather-cyclone-phailin.html).
- De Gregorio, J. 2012.** "Resilience in Latin America: Lessons from Macroeconomic Management and Financial Policies." Universidad de Chile. September.
- Diamond, J. 1998.** *Guns, Germs and Steel*. Vintage Press.
- The Economist. 2011.** "Throwing money at the street." 10 March.
- Guillaumont, P. 2011.** "The concept of structural economic vulnerability and its relevance for the identification of the Least Developed Countries and other purposes (Nature, measurement, and evolution)." CDP Background Paper No. 12, ST/ESA/2011/CDP/12. United Nations.
- Hamdani, K. 2013.** "The Challenge of the South." In K. Malik and M. Kugler, eds., *Human Progress and the Rising South*. UNDP.
- ILO (International Labour Organization). 2013a.** *Global Employment Trends for Youth 2013: A Generation at Risk*.
- \_\_\_\_\_. *World of Work Report 2013: Repairing the economic and social fabric*.
- IMF (International Monetary Fund). 2012.** *World Economic Outlook*.
- \_\_\_\_\_. 2013. *World Economic Outlook*, International Monetary Fund, April 2013.
- IMF (International Monetary Fund) and ILO (International Labour Organization). 2010.** "The Challenges of Growth, Employment and Social Cohesion." Joint ILO-IMF conference in cooperation with the office of the Prime Minister of Norway, 13 September.
- IOM (International Organization for Migration). 2013.** *World Migration Report 2013*.
- Jones, N., and H. Marsden. 2010.** "Assessing the Impacts of and Responses to the 1997-98 Asian Financial Crisis through a Child Rights Lens: including children in policy responses to previous economic crises." UNICEF Social and Economic Policy Working Paper. December.
- Leckcivillize, A. 2012.** "The Impact of Supply Chain Disruptions: Evidence from the Japanese Tsunami." December. <http://personal.lse.ac.uk/leckcivi/JobMarketPaperA.Leckcivillize.pdf>
- Mendoza, R. 2003.** "The multilateral trade regime: a global public good for all?" In I. Kaul, P. Conceicao, K. Le Goulven and R. U. Mendoza, *Providing global public goods: managing globalization*: 455.
- Mendoza, R., and C. Bahadur. 2002.** "Toward Free and Fair Trade: A Global Public Good Perspective." *Challenge* 45(5): 21–62.
- Milberg, W., and E. Houston. 2005.** "The High-Road and the Low-Road to International Competitiveness: Extending the Neo-Schumpeterian Model Beyond Technology." *International Review of Applied Economics* 19(2): 137–162.

**Milberg, W., and D. Winkler. 2009.** "Globalization, Offshoring and Economic Insecurity in Industrialized Countries." DESA Working Paper No. 87, ST/ESA/2009/DWP/87. United Nations.

**United Nations. 2013.** "Declaration of the High-level Dialogue on International Migration and Development." General Assembly resolution A/68/L.5. 1 October.

**UNCTAD (United Nations Conference on Trade and Development). 2007.** "Structurally weak, small and vulnerable economies: Who are they? What can UNCTAD do for them?" TD/B/54/CRP.4. 11 October.

\_\_\_\_\_. **2011.** *World Investment Report 2011: Non-Equity Modes of International Production and Development.*

\_\_\_\_\_. **2012.** "Corporate Social Responsibility in Global Value Chains: Evaluation and monitoring challenges for small and medium sized suppliers in developing countries."

\_\_\_\_\_. **2013a.** *Key Trends in International Merchandise Trade.*

\_\_\_\_\_. **2013b.** *World Investment Report 2013: Global Value Chains: Investment and Trade for Development.*

**UNDP (United Nations Development Programme). 2001.** *Human Development Report 2001: Making New Technologies Work for Human Development.*

\_\_\_\_\_. **2013.** *Human Development Report 2013: The Rise of the South: Human Progress in a Diverse World.*

**World Bank. 2012.** *State and Trends of the Carbon Market 2012.*

**WTO (World Trade Organization). 2001.** "Doha WTO Ministerial 2001: Ministerial Declaration." WT/MIN(01)/DEC/1. 20 November.

UNDP Human Development Report Office  
304 E. 45th Street, 12th Floor  
New York, NY 10017, USA  
Tel: +1 212-906-3661  
Fax: +1 212-906-5161  
<http://hdr.undp.org/>

Copyright © 2014  
by the United Nations Development Programme  
1 UN Plaza, New York, NY 10017, USA

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior permission. This paper does not represent the official views of the United Nations Development Programme, and any errors or omissions are the authors' own.

