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Key messages from the work of the CDP on "leaving no one behind"

The Committee for Development Policy (CDP) has addressed multiple dimensions of the pledge to leave no one behind contained in the 2030 Agenda for Sustainable Development, which it considers central to any discussion on sustainability and resilience.

Current trends identified by the Committee do not point to a degree or speed of advance compatible with the timeframe of the 2030 Agenda in some of the fundamental elements that are key to leaving no one behind and sustainability, including poverty rates – particularly in rural areas and in countries in Sub-Saharan Africa where both income levels and growth rates are low –, education, housing and others. Demographic imbalances in both poor and rich countries generate additional challenges. Extreme inequality persists within countries and cities as well as among countries. In many different contexts people are being pushed further behind by a variety of forces, including globalization, technological developments, and climate change and other forms of environmental degradation that lead to loss of access to land, livelihoods and jobs. In many cases, policies, legislation and investments fail to take into account negative impacts on other sectors, groups of people and countries and on future generations. Structural factors including limitations in productive capacities determine that economic growth does not necessarily lead to the reduction of inequality, poverty and deprivation, nor to the creation of decent jobs. Many economies have undergone a process of reprimarization in recent years, rather than one of structural transformation towards higher value-added sectors.

The experiences of certain countries in specific policy areas show that it is possible to make significant advances in relatively short periods of time, but a generalized shift towards development that leaves no one behind requires the transformation of deeply rooted systems – economic and political systems, governance structures, and business models – that are often based on unequal distributions of wealth and of decision-making power. It is not enough to address inequality by focusing on those "left behind" at the bottom. It is also necessary to address the concentration of wealth, income and decision-making power at the top and to break the link between economic and social exclusion and decision-making power.

The pledge to leave no one behind is seldom disputed in principle, but the complexity of its practical implementation is often insufficiently acknowledged. Trade-offs in the path toward their achievement must be understood and addressed. Furthermore, the policy choices most effective in leaving no one behind may not be those targeting specific groups but adequate macroeconomic and fiscal policies, productive capacity development; mechanisms that empower and actively encourage the participation of all in relevant decision-making processes and ensure the respect, protection and fulfilment of human rights; transformative social policies that combine universal and targeted actions, as well as pre-market, inmarket, and post-market redistribution. It is important to take into account, in the implementation of technological innovation policies, that while technology has great potential to advance inclusive development it can also be at the root of national and international exclusion and inequality.

To leave no country behind international action must be coherent and support rather than hinder countries' capacity to enact and finance their development strategies, and enable rather than block channels through which global wealth can be redistributed. Global rules need to promote an equitable distribution of income and development opportunities at the international level, taking effective action on international cooperation on tax, cross-border financial flows, migration and remittances, debt relief, and trade; and shifting development cooperation to a more comprehensive and

representative framework integrating new and traditional providers and in which governance is representative of both donors and recipients. LDCs should be prioritized in all these areas.



Science, technology and innovation for sustainable development*

Science, technology and innovation are essential drivers of sustainable and inclusive development. It is therefore crucial that science, technology and innovation initiatives address all aspects of sustainable development — economic, social and environmental — and their interrelationships, since technological choices can have negative impacts on the social and environmental dimensions of sustainable development. It is equally important that knowledge systems be constructed broadly to include the cultural, social and institutional dimensions in which they operate.

The role of government in building science, technology and innovation capabilities is fundamental, including in stimulating the development of systems that will foster the acquisition, development and dissemination of knowledge at the national level. This includes the promotion of education, research, development and technological dissemination, as well as the design and implementation of nationally appropriate industrial policies. Moreover, the international community should review the extent to which the international trade and investment regimes can guarantee adequate policy space for national Governments in this area. In particular, the limitations imposed by the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) and the Agreement on Trade-Related Investment Measures

(TRIMS) should be recognized, especially the restrictions on the use of policy instruments such as domestic content, export performance and standards for government procurement that have been widely used by developed countries and successful industrializers in the developing world.

The current system of promoting research and development, including associated intellectual property rights, leads to underinvestment in social priorities and restricts access to the benefits of innovation. Alternative modalities for supporting and financing global research and innovation merit serious consideration. Knowledge, research and technologies that have a direct bearing on the fulfilment of basic human needs and on small rural producers and that tackle environmental challenges, in particular those relating to climate change, should be freely accessible to all as global public goods. A major challenge for science, technology and innovation for sustainable development will be climate change adaptation, especially in the most vulnerable communities and countries. To this end, emphasis should be placed on the creation of an improved knowledge base for the understanding of climate change dynamics and of the technologies and innovations needed to respond to them.

1. Introduction

Science, technology and innovation play a critical role in achieving sustainable development goals, including with respect to enhancing productivity and inducing a dynamic transformation of the economy, increasing growth rates and the number of decent jobs while reducing fossil-based energy consumption, developing essential drugs and improving health/medical care, achieving food security through sustainable agricultural methods and raising agricultural productivity, reducing the drudgery and improving the safety of housework, and increasing the safety of reproduction. Advancing a nation's capacity in science, technology and innovation and its effective application in economic

activities are essential factors for expanding peoples' capabilities and achieving sustainable development. At the same time, science, technology and innovation form part of global and national capabilities to address the economic, social and environmental dimensions of development and their interactions.

While science, technology and innovation are essential in finding answers to the sustainability crisis that the world is currently facing, there is a need to look at the broader context and take into account both the cultural and historical dimensions in which science, technology and innovation operate. Under this framework, it is crucial to recognize that although the world is confronting common crises, there are differences within and between coun-

Excerpt from Committee for Development Policy, Report on the eighteenth session, See Official Records of the Economic and Social Council, 2013, Supplement No. 13 (E/2013/33)

tries; hence, knowledge systems should be constructed broadly to include the diverse historical, cultural, social and institutional features of countries.

In this regard, the contributions of science, technology and innovation to a new sustainable development paradigm require a deep understanding of the relation among the three pillars of sustainable development, acknowledging that environmental degradation harms economic development and human well-being, especially for the poor and vulnerable groups in society. Social and economic sciences must contribute as much as natural and technical sciences to an approach where improved quality of life and sustainable patterns of consumption and production can be reconciled with reduced environmental degradation, poverty and inequalities, and the promotion of peace and security.

Similarly, it is imperative to understand that there are technological choices that can have negative impacts (externalities) on the social and environmental dimensions of sustainable development. They also have important distributional consequences besides generating "winners" and "losers" owing to the introduction of new production processes and labour-saving technologies. Important distributional implications emerge particularly owing to decisions about which types of knowledge and innovations are promoted and developed and which types are neglected and forgotten. Thus, it remains important to be clear about the fact that the choices we face are societal choices, not scientific or technical ones. Understanding this approach, science, technology and innovation for sustainable development offers immense opportunities to connect science with society, culture and traditional knowledge.

2. Science, technology and innovation: meeting basic human needs and environmental challenges

The science, technology and innovation capabilities of a nation are basic, yet crucial, factors not only for sustained economic growth, but also for a nation's ability to provide its citizens with quality education, good health care and safe food and to mitigate the negative impacts of climate change and natural disasters.

Since the adoption of the Millennium Development Goals in 2000, there have been renewed efforts to use science, technology and innovation, nationally and globally, for the development of vaccines and improved medical treatments for tropical diseases and other diseases that plague the developing world, as well as for global pandemics such as HIV/AIDS¹. Technological innovation has played an equally critical role in the management of safe freshwater resources and in addressing concerns about water scarcity in agricultural production by small farmers. International research institutions, supported by public funds, have

been active in agricultural innovation in developing countries in the past, leading to the green revolution of the 1960s and 1970s. National Governments expanded roads, irrigation systems and electrical power supply to support farmers to adopt the new technology. International lending was also prioritized for agricultural development². More recently, an innovative system, known as the rice intensification system, has been successfully tested in 40 countries³. Nonetheless, these efforts remain limited. Moreover, in many instances, access to technology and innovation remains restricted in view of the proprietary nature of intellectual rights.

Geography matters in climate change, and some regions will be more affected than others. The economic, social and environmental consequences will also vary, depending on levels of development in general and on individual, local and national preparedness to mitigate and adapt to the impact of climate change.

A major challenge for science, technology and innovation in climate change is to support mitigation and adaptation. While much attention has been paid to mitigation, particularly because greenhouse gas emissions are largely generated in the more technologically advanced countries, little or no attention has been paid to the promotion and development of science, technology and innovation for adaptation. Most of the adaptation technologies currently available reflect informal or spontaneous processes, such as indigenous or traditional knowledge-based technologies used to cope with flooding and irrigation systems developed and updated to make more efficient use of scarce water. Adaptation measures are likely to be more amenable to small-scale interventions and thus more adaptable to local conditions and institutions. However, adaptation measures are likely to be more accessible to richer countries, communities and individuals, which are not necessarily the most vulnerable.

Science, technology and innovation as global public goods

The above-mentioned considerations reinforce the need to view certain technologies, particularly those that contribute to meeting basic human needs and environmental challenges, as global public goods that deserve to be supported by a system of incentives to make them accessible to all. The development and dissemination of these technologies should be a global priority. However, both confront major obstacles.

First, with respect to development, markets have not been efficient in providing these goods and services in the right quantity and quality in a timely manner. The current system of financing research and development depends largely on granting exclusive intellectual property rights as an incentive for private investment

¹ See Official Records of the Economic and Social Council, 2009, Supplement No. 13 (E/2009/33).

² The green revolution has been criticized based on the technology it promoted, which involves intensive use of fertilizers, chemical pesticides and water; these have negative environmental impacts.

Rice has been the single most important staple of the poor, particularly in Asia and parts of Africa.

in the generation of technology and innovation. This leads to underinvestment in innovations for social priorities, notably to meet basic human needs and environmental sustainability. Therefore, alternative mechanisms for financing innovation are needed, such as prizes and public funds (including public funds to buy technologies that would then be made freely accessible), and deserve further consideration.

Second, with respect to dissemination, technologies receiving patent protection are often less accessible owing to monopoly pricing, which makes them more costly. However, a defining aspect of global public goods is that they should be non-exclusive; once the knowledge or technologies are created in these crucial areas, no one should be excluded from the access to them. The question is how to secure sustainable funding to provide them. Because of their non-exclusive nature, research and development in such technologies has long been underfunded, in particular with respect to those needed by poor people living in low-income countries.

3. Building science, technology and innovation capabilities for sustained growth: the role of Government

Development is, in essence, a process of capacity-building. Developing countries confront many obstacles in building a robust and entrepreneurially dynamic private sector; however, they also have some advantages. They can draw on the knowledge accumulated elsewhere, obviating the need to devote significant resources to research and development. Developing countries use a given technology only after it becomes an industrial standard, which also implies that they can adapt these existing mature technologies. This is known as the "latecomer effect"⁴. However, latecomers also need to acquire new or emerging technologies, which are often associated with dynamic markets. Emerging technological paradigms can serve as a window of opportunity for latecomers because they are not necessarily locked into the "old" or "mature" technological paradigm and thus are able to make best use of new opportunities in the emerging or new industries.

However, developing countries often go through technological learning and capability development before reaching the stage where they can fully benefit from the latecomer effects. Public and/or private entities need to build a stock of knowledge in the form of human and physical capital, identify the technologies and industries in which the country or firm has the larger growth potential and channel the resources into them, while acknowledging the risks of failing to plan.

Governments thus have a fundamental role to play in building science, technology and innovation capabilities, including in stimulating the development of systems that foster the acqui-

sition and dissemination of knowledge, as well as in designing and implementing industrial policies. Evidence suggests that the level of expenditure on research and development is key to building up innovation capacities. Meanwhile, a country's institutions, educational system and quality of education are significant factors in achieving the transition from the low-income to the middle-income level. In this regard, it should be noted that tertiary education and retraining and facilitating the mobility of researchers are necessary to enhance the transfer of technology among different sectors of the economy and the application of such technology in business activities.

Moreover, building technological capacities requires Government support. When private capacity is non-existent or weak, the public sector as a whole needs to lead the design and implementation of a new industry or a new technology, with a combination of horizontal interventions at the macroeconomic level. As the capacity of the private sector advances, the direct involvement of the national Government may become less prominent, its policies are likely to be more targeted to specific industries or technologies, and the nature of public and private cooperation takes the form of partnership. Ultimately, the private sector may become fairly independent from the public sector in technological development, with the latter providing the former with economic incentives, including exclusive property rights for a certain period, to encourage its efforts. Nonetheless, it should be recognized that even in developed countries, Governments continue to conduct and sponsor a significant amount of research and technological development, and not only in defence-related matters.

4. Importance of policy space for science, technology and innovation

A pertinent question is whether the current international trade and investment regimes guarantee enough policy space for the Governments of developing countries to promote national science, technology and innovation capabilities.

Among the relevant multilateral, regional and bilateral agreements, the TRIPS and TRIMs Agreements should both be mentioned. The TRIPS Agreement establishes minimum standards for domestic intellectual property protection with which signatory countries (excluding least developed countries) are required to comply. This has significant implications for permissible science, technology and innovation policies at the national level. In this regard, certain measures that developed countries used in the course of their industrialization, namely, discrimination against foreign patent application, or exclusion of such industries as chemicals and pharmaceuticals, are no longer available. However, the TRIPS Agreement contains several "flexibilities" that can be used by developing countries in designing their own intellectual property rights system. Meanwhile, the TRIMs Agreement prohibits practices such as local content requirements manufacturing requirements, export performance, trade balancing

⁴ Alexander Gerschenkron, Economic Backwardness in Historical Perspective (Cambridge, Massachusetts, Belknap Press of Harvard University, 1962).

requirements and technology transfer requirements. Simply put, these measures significantly limit policy space for Governments in developing countries. Beyond this issue, there is the question of whether the TRIPS rules are the right intellectual property rights model for developing countries and what implications they bring in terms of access to knowledge and technology.

There is a need for a global dialogue on the reform of international trade and investment regimes. In particular, intellectual property right systems need to evolve from a focus on protection to one that fosters dissemination. Stringent protection of intellectual property rights, particularly patents, can be a serious deterrent in countries' efforts to achieve sustainable development in general and to pursue appropriate industrial policies to that effect. In this regard, the international community should also consider several policy issues, including a broad research exemption for experimental users and judicial power to require non-exclusive licensing in the spirit of public interest. Moreover, there is a need to install a minimum safeguard of public interests by ensuring transparency in licensing and allowing wider use of non-exclusive licensing, particularly in the patenting of results of publicly funded research.



Expanding productive capacity for achieving the sustainable development goals*

Recommendations

In response to the theme adopted by the Economic and Social Council for its 2016 session, entitled "Implementing the post -2015 development agenda: moving from commitment to results", the Committee for Development Policy considered the question of expanding productive capacity of the least developed countries to enable them to achieve the Sustainable Development Goals. International support is crucial for expanding productive capacity in those countries. Many least developed countries have been experiencing re-primarization, deindustrialization and informalization of their economies as well as increased food insecurity. Given the diversity among least developed countries, national strategies and international support measures cannot be of the one-size-fits-all variety, but instead should be targeted at the various key conditions and governance capabilities affecting different groups of least developed countries. The Committee recommends that the Council:

a) Call upon the Governments of least developed countries to design and implement strategies that aim to simultaneously accelerate economic growth, promote dynamic transformation of their economies and ensure that no one is left behind, that the disadvantaged are not made worse off and that the environment is not harmed. However, countries may need to address potential trade-offs and harness synergies between increasing productive capacity and other sustainable development objectives;

b) Request the international community to strengthen support measures in favour of least developed countries. In this regard, preferential market access for least developed countries should be retained and enhanced, and aid-for-trade allocations should target countries most in need. These and other relevant measures should support structural transformation, enable building of innovation capabilities and contribute to the broader set of Sustainable Development Goals, including the goals of reducing inequalities and promoting gender

c) Urge the international community to strengthen international tax cooperation so as to guarantee that foreign investors make an adequate contribution to tax revenues in least developed countries, including in oil and mining and other natural resource sectors, and that adequate action is taken to avert illicit capital flows associated with tax evasion.

Main Observations

Least developed countries face the challenge of promoting the dynamic structural transformation of their economies while building the necessary capabilities and policy frameworks for sustaining productivity growth across the entire country. In many least developed countries, improving agricultural productivity in a sustainable way by overcoming policy neglect of this sector and investing in sustainable agriculture, scaling up research and removing gendered constraints will be a priority, while increasing productivity in manufacturing, natural resource-based industries and tourism is also key in many least developed countries. There are, however, potential trade-offs between increasing productive capacity and other sustainable development objectives which need to be addressed by domestic and international policies.

Industrial policies, especially when combined with competition, can play an important role in expanding productivity. In most least developed countries, soft industrial policies that aim at raising investments in infrastructure, improving the coordination between the public and private sectors and increasing human capital are appropriate. Least developed countries may also choose from a wider range of policy measures, including vertical policies such as public-private joint research and development (R&D), promoting backward and forward linkages and domestic content requirements. While foreign direct investment (FDI) can be an important vehicle for industrial and technological upgrading in least developed countries, it requires parallel development of local capabilities in order to harness production linkages and promote local value creation. Least developed countries also need to ensure that their macroeconomic and financial policies are supportive of expanding capacities and ensure a fair distribution of benefits within their societies.

Synergies between productive capacity and the Sustainable Development Goals are enhanced by adopting inclusive social policies so as to ensure that everyone has access to improved nutrition, health, education and social protection. There is also a need to further close the gender gaps in education, employment opportunities, wages and distribution of unpaid care work in families and to address the issue of youth unemployment on a priority basis.

^{*} Excerpt from Committee for Development Policy, Report on the eighteenth session, See Official Records of the Economic and Social Council, 2016, Supplement No. 13 (E/2016/33)

1. Introduction

The international development policy debate increasingly emphasizes expanding productive capacity as an element key to achieving development progress, in particular in least developed countries. The shift in emphasis is reflected in the Istanbul Programme of Action for the Least Developed Countries for the Decade 2011-2020¹, in which productive capacity is the first of the eight priority areas. In respect of the newly adopted Sustainable Development Goals, a number of Goals and targets refer directly to productive capacity, in particular Goal 8 ("Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all") and Goal 9 ("Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"). In addition, meeting other Sustainable Development Goals and targets (such as those on education, health and nutrition, institutions and energy) may further contribute to increasing productive capacity. Building productive capacity will also impact on a number of Sustainable Development Goals and targets (such as those on gender equality, employment, income growth, and natural resources).

Expanding productive capacity and achieving the Sustainable Development Goals require an integrated approach to development at the national and international levels. Whereas international support is required for essentially all developing countries, priority needs to be given to the least developed countries. Those countries have lower productive capacity as well as fewer resources and limited capabilities for expanding them. Focusing support to least developed countries towards on expanding productive capacity is a means of ensuring that no country is left behind. This support also needs to be designed in such a way as to leverage national-level efforts to ensure that no one is left behind at the national level.

Despite their increased economic growth and participation in global trade since the turn of the millennium, least developed countries have made only limited and uneven progress in dynamically transforming and diversifying their economies. Instead of improving efficiency in the use of available resources through the reallocation of labour towards dynamic activities, structural change in those economies has been largely characterized by re-primarization towards (often subsistence) agriculture and mining, very limited industrialization and informalization (which is often centred on service sectors with low, rather than high, productivity). If current trends persist, it is unlikely that the goals established under the 2030 Agenda for Sustainable Development will be met - and not only those goals directly related to the promotion of productive capacity. Consequently, new policy approaches to implementing the Sustainable Development Goals are needed at the domestic and international levels.

1 A/69/95-E/2014/81.

2. Identifying priority areas for different groups of least developed countries

Least developed countries vary with regard to economic structure and external conditions. Given the heterogeneity within least developed countries, one-size-fits-all policies are unlikely to yield benefits for all. While manufacturing offers great potential for achieving economies of scale and productivity growth, pursuing structural transformation through industrialization is unlikely to succeed in all countries, particularly in small and remote States such as the Pacific islands. Similarly, while trade integration potentially expands domestic demand and brings opportunities for industrial and technological upgrading and fast income growth, adoption of an export-led approach should not be to the detriment of industries catering to the domestic market in countries with large populations.

In a large number of least developed countries, low agricultural productivity is a major cause of food insecurity and a constraint on shifting economic activities towards manufacturing and modern services. In those countries, sustainable agriculture can be the backbone of economic development. This requires policies that boost productivity by providing access to advanced agricultural inputs, extension services, infrastructure and credit, as well as removing gender-specific constraints on the sector. At the same time, policies must prevent environmental degradation, protect the interests of smallholders and ensure that increased agricultural productivity contributes to enhanced food security.

Extractive industries such as oil and mining have been a major driver of economic growth in a number of least developed countries. Harnessing those sectors for expansion of productive capacity and sustainable development requires industrial policies that build domestic linkages both downstream (with firms providing inputs to extractive firms) and upstream (with firms processing extracted resources) as well as policies that address natural resource-related inequalities and negative environmental impacts. Moreover, countries need to manage macroeconomic challenges associated with natural resource extraction, for example, through instituting stabilization funds and sterilizing sudden surges in monetary inflows.

As shown by the performance of several least developed countries, the low-skill segments of the manufacturing sector can be important entry points for structural transformation. Rising prices and wages in major non-least developed developing countries as well as the increasing importance of global value chains enlarge opportunities for least developed countries. At the same time, moving gradually from low-skill activities to medium- and higher-skill activities becomes increasingly important for raising overall productivity and increasing labour incomes.

For most small island least developed countries, fisheries and tourism will continue to be the main export-oriented economic activities. Ensuring that these sectors contribute to achieving

the whole range of Sustainable Development Goals is therefore crucial. Given the importance of remittances, further harnessing economic links to the large diasporas will also be beneficial.

In addition to confronting the aforementioned differences between groups of least developed countries, strategies for productivity growth and structural transformation need to address cross-cutting issues. For example, in least developed countries affected by armed conflicts, reconstruction and prevention of (re-) emerging conflicts are a priority.

Different strategies are needed for different groups of least developed countries, taking into account specific features of the economy and its development trajectory. While country-specific policies are necessary, past experience has also indicated some common elements, naturally tailored to country characteristics, in those countries that have succeeded in promoting a sustainable dynamic transformation of their economy.

3. Building development governance capacity

Expanding productive capacity requires an active and strong role for the State. Good "development governance" is concerned with getting the governance processes right and also with achieving specific developmental outcomes. Hence, it goes beyond "good governance", which focuses on certain subsets of national-level mechanisms. Development governance relies on the ability of the State to promote development and facilitate a sustainable dynamic transformation of the economy while ensuring that costs and benefits are fairly distributed. The role of the State is critical because it is the largest economic and political actor in most national economies and the institution that implements the business and legal framework for development.

A successful developmental State requires political leadership that drives the process of moulding a national development vision in partnership with all relevant national stakeholders. Powerful and accountable planning institutions that have effective control over financial resources and are able to adapt plans to changing national conditions are also essential. Human capabilities need to be commensurate with evolving requirements. In earlier stages of development in particular, this requires meritocratic bureaucracies characterized by broad education in both social and technical fields and the pragmatic knowledge needed to prepare and implement national development plans.

For the purpose of developing successful governance capabilities, least developed countries could consider the experiences of other developing countries that successfully transformed their economies and adapt those approaches to their own national conditions. Such a learning-based approach is more promising than one underpinned by the attempt to emulate the institutions of advanced countries.

4. Industrial policies

Industrial policies can be an important instrument for promoting diversification and industrial and technological upgrading of domestic production structures, if they are tailored to national conditions and potential comparative advantages. Generally, for least developed countries, industrial policies need to take into account the fact that most of those countries have small economies and are latecomers into global markets compared with developing countries that implemented industrial policies in the past. Moreover, given the important role of service activities in many least developed countries, industrial policies should target not only manufacturing but also services. Least developed countries need to weigh the benefits and costs of industrial policy instruments and take the scarcity of their resources into account. Least developed countries are also limited by the reduction in policy space arising from World Trade Organization and other international obligations, although the reduction is smaller than that experienced by other developing countries. Instead, lack of institutional and human capacities and resources are more binding constraints on industrial policy.

Industrial policies that use trade and fiscal instruments appear to be most successful when they are associated with increasing exposure to trade or foreign direct investment (FDI). Interventions such as export promotion or short-term tax holidays for new investors are often more promising than external tariffs or domestic content requirements. Instruments such as tax breaks for specific investments are beneficial only if those investments generate significant technology transfer and employment-creation. Generally, policies directed towards FDI promotion are effective in achieving structural transformation only when they are part of a broader effort to achieve industrial and technological upgrading. Instead of providing blanket subsidies for exports and FDI, countries should attract FDI to produce key inputs or to acquire the specific knowledge needed by the clusters of economic production with the ability to absorb them. This requires such host country policies as public-private joint research programmes and training to develop local capabilities for progressing beyond assembling imported inputs. The higher the investment in domestic R&D, the greater the potential for absorbing and utilizing external research and innovation, which can further support and accelerate structural transformation.

In addition to adopting vertical (or sectoral) industrial policies (including tariffs, infrastructure provisions and tax holidays) supporting specific firms or industries, least developed countries can also utilize horizontal ("soft" or generic) industrial policies or processes whereby government, industry and private organizations collaborate on interventions that can directly increase productivity (such as support for research and development, quality standard regulations and business incubators). The idea is to focus attention on interventions that deal directly with the coordination problems that keep productivity low in existing sectors. In comparison with the more traditional approach to industrial

policy, the soft approach reduces the scope for corruption and rent-seeking and is more compatible with the multilateral and bilateral trade and investment agreements that have been implemented by many least developed countries over the last decades. Under this approach, new institutional arrangements can facilitate the growth of innovation as a key input into the industrial upgrading process.

5. Creating positive synergies

Governments need to ensure that there is a positive synergy between social outcomes and increases in productive capacity. This can be achieved through adoption of policies that build positive social outcomes (such as poverty eradication, health and well-being, quality education for all, reduced inequality, gender equality, full and productive employment and decent work) into the transformed structures of production, rather than policies underpinned by the attempt to grow first and redistribute later. For the creation of positive social outcomes, attention must be given not only to the amount of investment in services, such as education and health, but also to quality and access. Inclusive social policies, in particular those targeting women and girls, are essential. Special attention also needs to be focused on improving the employment prospects of youth, women and other disadvantaged groups.

Of equal importance is having the necessary social protection policies in place to shield people from the eventual costs and negative impacts resulting from structural transformation. In many cases, potential trade-offs – for example, between improving infrastructure through large-scale investments in dams, for example, and displacement of local populations, or between large-scale plantations or agro-processing facilities and the livelihoods of smallholders – can be addressed through benefit-sharing approaches. Other potential trade-offs, for example, between increasing employment in low-skill manufactures and unsafe working conditions, may disappear once the negative impact on productivity of increased staff turnover and absenteeism are factored in. However, this requires an understanding of the risks of negative synergies between productive capacity and social outcomes and the putting in place of measures to counteract them.

6. Supportive macroeconomic and financial policies

The key to rapid economic growth in the developing world is a combination of strategies aimed at the dynamic transformation of production structures, with appropriate macroeconomic conditions and stability. Thus, macroeconomic policies should support capacity expansion and increase the resilience of the economy to external shocks and internal crisis, reducing external and internal imbalances, while orienting the key policy tools (the interest rate, the exchange rate and financial regulation) towards capacity expansion. Rather than target only inflation, monetary

policy needs to accommodate these multiple objectives. Least developed countries with access to exchange rates as a policy instrument should aim at maintaining stable and competitive real effective exchange rates. Establishing fiscal rules and, for commodity-dependent least developed countries, stabilization funds can help ensure that fiscal policy is counter-cyclical. While capital account management can also contribute to increased stability of the macroeconomic framework, it is no substitute for sound fiscal and monetary policy. Most least developed countries have space within which to increase tax shares by broadening tax bases and increasing the progressivity of tax regimes, thereby providing additional financial resources for capacity expansion.

Policies should ensure that the financial sector contributes to economic growth, financial stability and equity. The most pressing needs centre around access to finance by the poor and marginalized groups, agricultural finance and financing of small and medium-sized enterprises, as well as infrastructure financing. Addressing these needs requires improved regulation and supervision of the sector as well as enhancement of the role of inclusive finance vehicles such as microfinance, mobile banking and credit unions and their further integration into the regulatory framework. Giving stronger roles to national development banks can also be important, but this requires sufficiently strong governance capabilities. Least developed countries should aim, whenever possible, at reducing dependence on foreign savings, lowering foreign indebtedness and maximizing domestic savings. Capital accumulation needs to be funded mainly through the strengthening of indigenous savings and banking institutions, and incentives for firms to invest

7. International support for expanding productive capacity

The main thrust of international support to enhancing productive capacity in least developed countries has been a better integration of these economies into the global trading system through improving both demand and supply conditions. Providing preferential market access has aimed at removing the constraints of small domestic market size and offsetting higher costs due to structural constraints. Preferences have evolved over time and are increasingly being provided not only by developed but also by developing countries. Yet, coverage of markets and products is still incomplete, while rules of origins, product regulations and administrative procedures often remain as barriers to trade. Nevertheless, preferential market access has been successful in boosting least developed countries exports, on average. Further increasing coverage and simplifying access to preferential schemes remain important, in particular as their impact varies among providers.

The main beneficiaries of trade preferences are least developed countries in Asia that specialize in garment exports. Remote Pacific least developed countries still lack the potential for exporting goods and most African least developed countries remain commodity exporters. Preferential market access has not yet enabled least developed countries to move towards more skill-intensive and higher-productivity manufacturing activities, while the impact of enhanced market access on social and environmental outcomes requires further investigation. The implementation of the World Trade Organization waiver allowing for preferential access in services could play an important role, but only if it includes sectors and modes of supply in which least developed countries have a potential comparative advantage.

As improved market access does not directly solve the problem of the lack of productive capacity, supply-side oriented support to infrastructure-building, enhancing firm productivity and trade policy reform, as envisioned under the Aid for Trade initiative², can be instrumental. However, there is an urgent need to shift Aid for Trade allocation towards countries most in need of such support, i.e., the least developed countries in particular. A more precise definition of Aid for Trade is also needed to enable the evaluation of its impacts and effectiveness. In many least developed countries, support is also needed for better identifying and addressing trade constraints. Moreover, additional resources should be channelled to regional projects, as some trade-related issues, such as that of transport corridors, can be tackled only within a regional framework.

Aid for Trade projects need to consider their impact on trade as well as on different groups (for example, formal versus informal workers, male versus female workers, and large versus small businesses) so that inequality does not rise in recipient countries. There is potential for Aid for Trade to become aid for innovation, if support for basic research and science and technology becomes part of it. To strengthen national ownership, matching Aid for Trade with dedicated domestic support may be explored further.

International cooperation in trade and investment can be coupled with international tax cooperation, as increased trade and investment flows are in certain cases also linked to illicit flows out of developing countries. Improved tax cooperation can help least developed countries increase their tax revenues by curbing tax evasion and ensuring a fairer distribution of natural resource rents among foreign investors, national Governments and local populations.

 $^{^2\,}$ The Aid for Trade initiative, inaugurated by the World Trade Organization in 2005, is a platform for providing support to developing countries, in particular least developed countries, to help them develop their capacity to trade.