Shaping a Sustainable Future

Strengthening the role of development cooperation in delivering sustainable development

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Policy Briefing Paper
prepared for the

UN Development Cooperation Forum

New York, July 2012

CONTENTS

Case Examples

About this paper

"Rio+20 has affirmed fundamental principles – renewed essential commitments – and given us new direction. From governments to the world's biggest companies, from philanthropic organizations to youth volunteers, they are part of a growing global movement for change….Our job now is to create a critical mass, an irresistible momentum. Because the road ahead is long and hard."

Secretary General Ban-Ki Moon

Development cooperation`s role has always been to advance an inclusive and sustainable development, expressed most recently by the Secretary General's High Level Panel on Global Sustainability as being: '*…to eradicate poverty, reduce inequality and make growth inclusive, and production and consumption more sustainable, while combating climate change and respecting other planetary boundaries'*. [1]

How development cooperation can most effectively contribute to achieving this universal aim however, changes over time. And dramatic changes are indeed taking place; the urgency of the challenges of environmental security and the growing importance of South-South cooperation, together with the profound economic crisis facing many developed, wealthier nations.

This Briefing explores new roles and approaches of development cooperation in advancing sustainable development in this changing context.

The paper has been commissioned by the UN Department of Social and Economic Affairs, for the UN Development Cooperation Forum to be held in New York in July 2012, and has been prepared by Dr Simon Zadek, Maya Forstater and Sharmala Naidoo.

The role of development cooperation in sustainable development has been the subject of extensive investigation by development practitioners, policy makers, non-state actors and researchers, most recently in the run up to the Rio+20 Conference. Many of these studies are referenced in the bibliography. This paper, however does not attempt a comprehensive review and account of the literature, but seeks to contribute a frame for considering how development cooperation can best be employed as a means to reach sustainable development goals, given the **current context**, **the need for economic transformation** and the **potential for development cooperation to be done 'better and differently' through new channels and platforms**.

Comments and inputs were provided by the UN team responsible for the Development Cooperation Forum, including Hanif Navid, Marion Barthelemy, Marie-Therese Trasino, Thomas Boehler, Elisa Burchert and Doris Schmitz-Meiners. Amanda Ellis of the New Zealand Aid Program generously shared thoughts and examples from the Pacific. These inputs are gratefully acknowledged. In addition the paper benefited from discussions at the Third High-level Symposium for the UN Development Cooperation Forum co-hosted by the Government of Australia and the UN Department of Economic and Social Affairs (UNDESA) in Brisbane in May 2012, as well as drawing on the discussions of numerous side-events surrounding the Rio +20 Earth Summit.

Nevertheless the Briefing remains the sole responsibility of its authors.

Executive Summary

DEVELOPMENT'S CHANGING CONTEXT

Sustainable development is the timeless, universal goal of equitable and sustainable prosperity for all. How best it can be pursued, however, changes over time as circumstances, risks and opportunities, capabilities and interests evolve. Four major trends that need to be taken into account in considering the role of development cooperation in realizing sustainable development are highlighted below:

- **The need to address systemic and structural inequality** between and within nations; that is, unequal material outcomes embedded in the very nature of today`s economy.
- **Growing environmental costs** from current economic development patterns, including those related to climate change, water scarcity and biodiversity loss.
- **The emergence of a multipolar, political and economic leadership**, where trade, investment and development cooperation increasingly involves the economic powerhouses of the emerging economies.
- **The end of the era of cheap**, in which the pattern of economic development we have seen over past decades, driven by cheap environmental assets, finance and labor, is no longer viable.

The combined impact of these four major trends set the context for the international political economy. Development cooperation in pursuit of sustainable development will have to be responsive to these changes in ensuring its effectiveness.

THE GREAT ECONOMIC TRANSITION

Every nation and community is seeking to create an enabling environment for more and better jobs, opportunities and livelihoods, with each having its own specific context, interests, opportunities and associated priorities. Everywhere, it is clear that establishing sustainable patterns of consumption and production will require major technological upgrading across everything from smallholder farms to energy systems, to enabling access to the digital economy.

The landmark report on the Green Economy by the United Nations Environment Program (UNEP) recognizes this challenge and highlights the *"…growing recognition that achieving sustainability rests almost entirely on getting the economy right"*.[2] This was echoed in subsequent reports by other key international institutions in the run up to Rio+20, including those from the OECD, the World Bank, UN-DESA, UNEP and UNCTAD.[3]

All these and other expert reports highlight the urgency of progressing large-scale investments to redirect the trajectory of today`s US$70 trillion global economy towards a sustainable pathway, and the risks and challenges in so doing. Building resilience to climate change, a major but by no means comprehensive part of the challenge, alone requires an estimated annual investment of US$2 trillion over the coming decades, with 60% of this needed in developing countries.[4]

The UN Secretary General`s High Level Panel on Global Sustainability highlighted the core economic imperative in addressing sustainable development. The Panel`s recommendations, whilst broad based, focus on policy measures to support an accelerated transition towards an inclusive, green economy, including:

- ***Fossil Fuel Subsidies*****:** reducing such subsidies, currently amounting to in excess of US$400 billion annually, to incentivise greener energy and production systems and unlock public resources to deploy more effectively in supporting vulnerable communities.
- ***Getting the Prices Right*****:** Establishing price signals that incorporate environmental externalities, as appropriate using fiscal and regulatory measures such as carbon taxes and emissions trading systems.
- ***Sustainable Public Procurement***: Applying sustainable development criteria that leverage the huge potential of an estimated US$3-4 trillion annually of public procurement globally.
- ***Guiding Investment*****:** Encouraging widespread adoption of sustainable development criteria in investment, including by sovereign wealth funds, public pension funds and export credit agencies.[5]

Without such transformative policies and the resulting investments, it is clear that nations will be left behind in this period of economic transition, with negative development consequences.

Although such economic measures were not adopted multi-laterally at Rio+20, there was a clear recognition that national economies need to transform themselves. Outside of the negotiating halls, a new generation of global and regional initiatives demonstrated how they were doing just this through national strategies, collaborations and public-private partnerships.

EQUITY IS IMPERATIVE

Inequality as a structural feature of today`s global economy needs to be addressed in the transition. National economic and industrial policies are developing to meet the challenges of the great economic transition, and to address the challenge of ensuring that the transition is inclusive.

Environmental security is of course the ultimate safeguard of continued development. Social development depends on greening of the economy and preventing a lock-in to unsustainable patterns of consumption and production. Failure to avoid such a lock-in will ultimately lead to instability, damage to vulnerable communities and over-time, a regression of development. The option of 'grow first, clean up later' simply does not exist.

However, environmental security alone is insufficient to ensure that the rights of all to sustainable development are realized. Greening the global economy cannot be at the cost of undermining the immediate priorities to address poverty alleviation and further human development. UNEP rightly defines a green economy as *"…one that results in improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities".*

A key outcome of the Rio+20 Summit was the agreement to create a global set of Sustainable Development Goals, and a process for assessing the financing needs and potential sources for achieving them.

Transitioning away from a natural resource intensive economy will involve costs and disruptive adjustment to many. Changes in pricing, regulation and demand for environmental externalities (both bads and goods) will shift the basis of comparative

advantage both within and between countries. Ensuring the economic rights of, and outcomes for the poorest and most vulnerable is crucial. Technology upgrading needed for environmental resilience must be combined with policy measures to ensure, in particular, that such advances do not have negative, unintended development consequences. In some cases this will require additional resources, in other cases resources need to be redirected towards pro-poor and sustainable goals. For example, expensive and wasteful consumption subsidies for water and electricity could be replaced by targeted concessional tariffs for low users, and connection subsidies that more effectively target those without access.

DEVELOPMENT COOPERATION FOR THE 21ST CENTURY

Development cooperation is undergoing its own transition, effected by the broader contextual changes highlighted above. The current economic recession and its longer-term consequences puts pressure on traditional sources of development cooperation and challenges its underlying approach to supporting economic growth. At the same time there is an emerging pattern of non-traditional cooperation emerging between developing nations. Whilst neither comparable nor substituting for traditional sources of development cooperation, this growing South-South cooperation will, without doubt, play a key role in mobilizing and channelling resources for development. Unlike traditional development cooperation however, this new pattern of cooperation will be built more explicitly on a foundation of mutual benefit, particularly economic benefit.

Development cooperation is also transitioning from a predominantly state-to-state activity to one increasingly involving private actors, notably business. The growing importance of South-South cooperation embedded in mutually-beneficial economic and industrial investments and initiatives has further deepened the engagement of the business sector in policy-supported, international development. The growing recognition of the need for major upgrading of the global economy, particularly in response to the climate change challenge, has accelerated this pattern of public-private action with a particular focus on technology and the mobilization of private finance.

REALIZING THE POTENTIAL OF DEVELOPMENT COOPERATION

Development cooperation can realize its potential by aligning itself to the larger-scale economic transitions required to secure sustainable development. This in turn requires a two-fold approach; on the one hand using scarce public resources to catalyze, accelerate and amplify this transition, and on the other hand supporting vulnerable communities in mitigating the negative impacts and taking advantage of the opportunities associated with this transition.

A new generation of international initiatives, supported by both traditional development cooperation and South-South collaboration, are engaging with national and sub-national policy initiatives that are in turn driving forward a new era of economic and industrial strategies. From Ethiopia to Indonesia and Colombia, and from Vietnam to Guinea, governments are drawing support from this new generation of international initiatives to support planning and investment mobilization for new and cleaner energy systems, transport and ICT infrastructure, and investment in sustainable land use practices. Such developments are in turn challenging other aspects of international cooperation, including for example existing trade rules and prospective climate arrangements.

Catalyzing, accelerating and amplifying the economic transition requires development cooperation to leverage business and private finance and mutual benefit as exemplified by South-South cooperation. Development finance mechanisms are increasingly being designed with a view to using scarce public funds to leverage private finance to invest in development infrastructure. Equally, design features enable institutional and human capacity development. New institutions and collaborative platforms have emerged to advance opportunities for collaboration and private resource mobilization; these include the Clean Energy Ministerial, the Global Green Growth Institute and the newly established renewable energy agency, IRENA.

Development cooperation needs to support the strengthening of human capacity and the institutions essential for developing countries to benefit from the economic transition. Support to communities made even more vulnerable by the impact of rising commodity prices and environmental instability must be a priority, as must be the need to provide enabling policies, mechanisms and associated resources to protect against unintended exclusion from the benefits of the great economic transition.

Technological deepening across every aspect of the global economy will particularly challenge less developed economies with relatively weaker education systems and infrastructure for technology absorption. Inclusivity in this macro-context centrally requires massive investment in people to enable them and the nations within which they live to avail themselves of the new market and employment opportunities.

BETTER AND DIFFERENT

Sustainable development is not a subset of development - realizing development requires that its environmental dimensions are addressed and that economic transformation is the strategic imperative in realizing the vision. Equitable development for all must always, and everywhere, be the vision and goal.

Whilst continued direct support to vulnerable communities is essential, more important than ever in such a period of volatility and change, efforts need to be focused on the strategic goal of rapid, large-scale, transformation.

Putting this into practice means that development cooperation has to do what it does better and at the same time evolve to remain relevant for the 21st century. Much of what the development community already does will continue to be of crucial importance, from humanitarian assistance to investment in health and education. The aid effectiveness principles of national priorities, results focus, inclusive partnerships, transparency and accountability reflect the challenge to do this better.

At the same time, the changing context of sustainable development and the momentous shifts in the global economy challenge development cooperation to evolve into a new understanding of its role and its way of working. The volume and application of development cooperation will be crucial in enabling the economic transformations required to secure sustainable development. Inclusivity can and must be integral to the transformation, but will not flow automatically.

A new global economy is already in the making, driven in significant part by the policy and business interests reflected in environmental imperatives. Development cooperation can and should mitigate negative unintended consequences of these changes, but could do much more. Careful but ambitious leveraging of the power of markets and in particular private finance, and alignment and complementary action to growing South-South

cooperation could place development cooperation at the leading edge of change and in a leadership role in securing sustainable development for all.

Rio+20 reaffirmed the universality of sustainable development as a global goal, but also made very clear the limitations to what can be achieved through multilateral agreement at this time. At the same time it highlighted the emerging new institutions and collaborative platforms that are working to advance the economic, social and political case for change and to mobilize private resources. Still in their infancy, such initiatives are providing the experiments in new ways of deploying development cooperation from which much can be learnt and built on.

1 Development's changing context

Sustainable development, reaffirmed most recently at the Rio+20 United Nations Conference on Sustainable Development, is the goal of equitable and sustainable prosperity for all. Since the Stockholm Conference on Environment and Development in 1972, the report of the Brundtland Commission over a quarter of a century ago and the UN Rio Conference in 1992, the interrelation between the three pillars of sustainability; the social, economic and the environment, has become undisputed. Sustainable development now has the status of a timeless, universal vision. [6]

How best it can be pursued however, changes over time as circumstances, risks and opportunities and capabilities and interests evolve. There remain diverse views as to what the priorities should be, how to reconcile short term trade-offs between environmental and development goals, which policies are likely to be most effective, and who should bear the costs and risks.

The most salient part of the current context is that we have seen over the past four years what has arguably been the greatest economic upheaval in modern history, with a cost estimated in trillions.[7] This leaves the global economy in a fragile state, and the situation of traditional sources of development cooperation, Europe, North America and Japan, with long-lasting economic challenges.

However this is not just an economic shock but reflects longer term shifts that are reshaping the international political economy. Most obviously, by 2030, there will be nine billion people on the planet. Of these, up to four billion will be middle class consumers, with the remaining five billion aspiring to the same level of prosperity. At the same time, almost three billion people could face endemic poverty if economic growth does not become more inclusive.

Four major and interlinked trends are highlighted here; a growing global population beset by structural inequality, environmental stress, a multipolar leadership landscape and finally, the end of the era of cheap environmental assets, finance and labor. This is not a definitive list, but establishes key contextual factors that need to be taken into account in considering the role of development cooperation in realizing sustainable development.

Development cooperation in pursuit of sustainable development will have to be responsive to these changes in ensuring its effectiveness.

1.1 Addressing systemic inequality…

Experience of recent decades clearly points to growing structural inequality, that is,

unequal material outcomes embedded in the very nature of today's economies.[8] Positively, apart from those nations with systemic problems, we are seeing poor countries now growing faster than rich ones, reducing average inequalities between nations.[9] This means that the majority of the world's poor now live in middle-income countries.

However within countries, income inequality by many measures has increased over the past twenty-five years, across both rich countries and emerging economies, rising to levels not seen since the Great Depression, in the run up to the 2007-2008 financial crisis.[10]

Diverse factors drive the relationship between economic growth, poverty and inequality. Technological progress, institutional change, changing social norms and globalization have all played a key role. As of course has government intervention, and lack of intervention.[11]

Progress on poverty reduction, political stability and sustainable economic growth depends on policies that reduce inequality *within* countries as well as between them. It is clear that inequality can give rise to the overthrow of governments, economic disintegration and unrest, but it has also been argued that huge inequalities in income distribution were at the core of the causes of the financial crisis; generating larger investable funds than could be profitably employed, leading to excessive risk taking and speculation.

1.2 ….and coping with rising environmental costs

Environmental boundaries are becoming increasingly apparent.[12] The global economy already generates annual environmental costs equivalent to 10% of global income, in the order of US$6.6 trillion a year.[13] With estimates that over the next twenty years there will be an increase in demand of 50 per cent for food, 45 per cent for energy and 30 per cent for available water (even taking account of more efficient technologies and systems being put in place), these environmental costs are likely to continue to rise.[14] Meanwhile the supply of these key factors is limited by the overall supply of land (which is under pressure both for food, fuels, ecosystem conservation and the growth of cities), the local supply of freshwater, the environmental boundaries of other critical earth systems, such as levels of atmospheric carbon and nitrogen and the capacity of fisheries.[15]

Climate change presents the most pervasive global risk, with clear evidence of its negative impact on both vulnerable communities and the broader international community. It is already affecting the lives of many millions around the world, and will increasingly endanger the livelihoods and security of vulnerable communities. Water scarcity is also posing an immediate threat to many communities across the world, with estimates that by 2025 two thirds of the world's population will be facing water stress and 1.8 billion people living in regions of absolute water scarcity.[16]

1.3 In the context of geo-political shifts…

A further profound change has been the emergence of a multipolar, political and economic leadership. This was reflected in the greater role played by developing countries in leading thinking, debate and negotiation on the text of the Rio+20 outcome.[17]

While world trade quadrupled between 1990 and 2008, South-South trade multiplied more than ten times. Thirty seven percent (37%) of global trade now involves developing countries and half of that is made up of South-South flows. In 2009 China became the leading trade partner of Brazil, India and South Africa.[18] Over 40% of the world's researchers are now in Asia and developing countries, in aggregate, hold more than one and a half times the amount of foreign reserves held by richer, OECD countries.[19] The international business community is rapidly accommodating a growing number of global players from Brazil, China and India in particular - the Indian conglomerate Tata, for

example is now the second most active international investor in Africa - but also from other emerging economies.

If the last three decades were marked by China`s massive trade surplus, the coming decades will be dominated economically by the impact of their outward investment. From a modest level of about US$300 billion, China`s stock of outward investment is expected to rise to over US$1 trillion in less than a decade, a massive surge in cross-border financial flows offering huge opportunities as well as risks to development processes and outcomes.[20]

Sovereign wealth funds, largely those of China and commodity exporters from Chile to The United Arab Emirates to Mongolia are also shifting the investment landscape. Such sovereign wealth funds already amount to US$4 trillion in assets, much of it looking for long-term international investment opportunities. By 2020 many analysts predict that the volume will have risen to about US$10 trillion. Already, it can be said that US$10 trillion is held as sovereign wealth if the foreign exchange reserves held by central banks is included.[21]

Brazil will benefit not only from trade surpluses arising from growing commodity and food exports, but also from the windfall gains from its newly-discovered off-shore oil and gas. Some of these funds will flow into domestic infrastructure, health and education, but a great deal of it will be invested internationally. Much of these funds will be publicly owned or at least controlled.

International affairs have evolved dramatically in the face of these new actors and the relative weakening of historically dominant actors. The G20 exemplifies this shift, although it is too early to judge its effectiveness. The BASIC coalition is another case in point, formed in particular to co-ordinate action between the major developing country emitters in the global climate negotiations.

The growth of South-South cooperation is also reflected in the area of development cooperation. Such cooperation has consciously not been framed in terms of official development assistance, and is characterized by horizontal partnership relationships which differ from donor-recipient relationships. An important context for this vision has been the resurgent interest in the role of an active, “developmental state”, principally although not exclusively in developing countries.[22]

1.4 …and the end of the era of cheap

Finally are the knock-on economic impacts of these changes, and the transformations they imply. Most apparently this can be seen in the rise in commodity prices which have jumped by almost 150% since the turn of the millennium, reversing a steady decline by 50% over the 20th century.

This is not just a fluctuation, but signals the end of the previous “Era of Cheap” in which cheap labour, underpriced natural resources and underpriced risk fuelled consumer consumption and economic growth. While this economic growth model was able to lift hundreds of millions of people out of poverty, it will not be able to finish the job. *The “Era of Cheap” has come to an end*, permanently for the foreseeable future.[23] Developed countries are mired in debt, with stagnant or negative growth rates, impacting their ability to drive the global economy through their consumption.

Food prices have risen dramatically because of rising demand and also because of greater supply volatility in the face of climate change and rising input prices, including greater competition for land to produce bio-energy. Costs of finance have also increased in general, and with greater policy interventions to reduce risk taking in capital markets, it is

likely that finance for long-term project investment (e.g. for infrastructure) will become scarcer and so also more costly in years to come. On the positive side, labour costs in many developing countries are increasing, reflecting rising wages in the eastern side of China which has been the benchmark for the low cost workforce for the last three decades.

The end of almost three decades of cheap environmental assets, finance and labor will have major implications for strategies and practices to realize sustainable development.

2 The Great Economic Transition

Every nation and community has its own specific context, interests, opportunities and associated priorities that inform its approach to sustainable development.

Higher commodity prices will bring new income flows to many less developed and emerging economies throughout Africa, Asia and Latin America. Similarly, higher wage rates will directly benefit tens of millions of workers and their families and communities. At the same time these trends will also drive up prices of food and other goods and services, as will the higher costs of finance and indeed increased labor costs. Higher commodity prices, similarly, will encourage innovations to reduce commodity use, but will also raise prices of good and services needed by poorer families and communities.

Rising natural resource prices, whilst benefiting some developing nations, challenges the viability of other, resource intensive economies of developing countries. And even for those countries benefiting from commodity revenues, the specter and impact of the potential "resource curse" is very real, negatively impacting balanced development and increasing corruption in those countries with weak institutions.

Set against those countries benefiting from a strong natural resource base, furthermore, is an intensification of technology-based competition. Sustainable economies will not be those who can earn rent from sales of natural resources for some time, but those who can invest rapidly in education, health and infrastructure that in turn lay the basis for attracting a new generation of technological industries. The dangers of being left behind in the next technological "long-wave" should not be under-estimated, even for comparatively strong developing countries such as Brazil and South Africa, let alone economically-weaker less-developed economies.

Common to all countries is the need to enable more and better jobs, opportunities and livelihoods underpinned by a sustainable development approach. For some nations this might involve the more effective management of agriculture and forestry, whilst for others it may involve a greater focus on manufacturing, mining or services. For all, it will involve a continued investment in education and health to support the development of human capabilities and investment in enabling physical infrastructure, notably energy, transport and information and communication technology.

What is clear is that establishing sustainable patterns of consumption and production will require major technological upgrading across every part of the global economy, from safeguarding the productivity of smallholder farms vulnerable to water stress in a changing climate, to establishing energy systems less vulnerable to the volatile upward trend of fossil fuel prices, to enabling access to the digital economy. Every nation will face the imperative of investing to ensure a continued improvement of natural resource productivity across all sectors, to conserve limited natural assets, maintain access for all citizens to goods and services and to ensure competitiveness in a global economy.

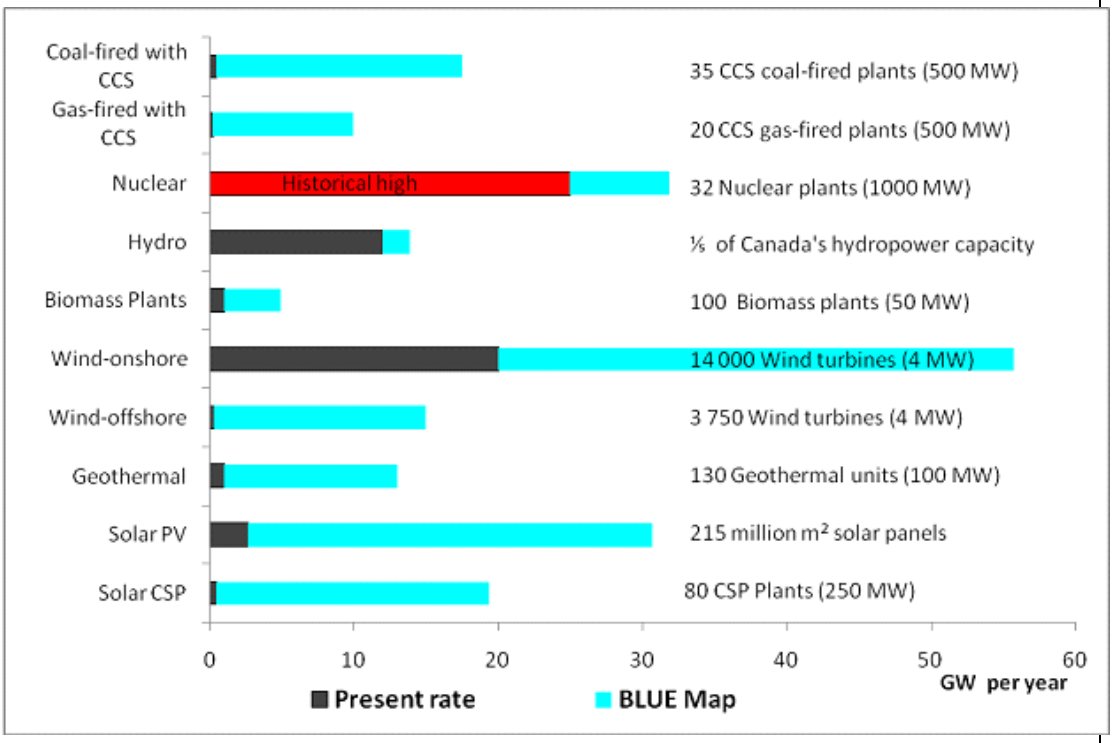
Without such transformative investments nations will be left behind in this period of economic transition, with negative development consequences. The landmark report on the Green Economy by the United Nations Environment Program (UNEP) recognizes this challenge and highlights the "…*growing recognition that achieving sustainability rests almost entirely on getting the economy right*".[24] This has been echoed by subsequent reports by other key international institutions, including the OECD and most recently the World Bank and a report by UN-DESA/UNEP/UNCTAD prepared specifically for the UN Rio+20.[25] All these and other expert reports highlight the urgency of progressing large-scale investments to redirect the trajectory of today`s US$70 trillion global economy towards a sustainable pathway, and the risks and challenges in so doing.

While investments in physical assets are not the only area needed, they illustrate the scale of investment that needs to be influenced and directed. Current investment levels globally in physical assets are around US$8 trillion a year, with 80 percent to this taking place in developed countries. To meet the demands of a growing population, rapidly growing cities and broader industrialisation, the OECD estimates that this will need to rise US$22 trillion a year by 2030, of which the bulk will be in developing countries.[26]

Sourcing the finance to support such investments will be a major challenge in itself. Ensuring that this infrastructure is resource efficient and low-carbon requires additional policies, and in many cases additional investment. Building resilience to climate change, a major but by no means comprehensive part of the challenge, alone requires an estimated annual investment in the region of US$2 trillion over the coming decades, with 60% of this being needed in developing countries.[27]

The graph below highlights the number of GW of low-carbon power supply that the IEA estimated need to be developed each year up to 2050 to achieve decarbonisation while keeping up with demand. Each year they see the equivalent of one third of Canada's hydropower capacity being added, fifty-five coal and gas fired plants with carbon capture and storage, and over 200 million square meters of solar panels – or around ten times the current rate.

Annual clean energy capacity additions needed for the IEA 'Blue Map' Scenario



[Source: IEA (2008) Energy Technology Perspectives]

Whilst state-owned utilities play a key role in large scale energy supply, across all relevant sectors around three quarters of investments have historically come from private sources, principally commercial providers of capital. A significant portion of the additional annual investment needed to green economies involves private, domestic investment decisions, such as in energy efficient buildings and cars.[28]

2.1 Getting the economics right

Many of the key debates in the run up to the Rio+20 Summit, and across its halls, were focused on how to shift this scale of investment. Whether couched in terms of "green growth" or "equal access to sustainable development it is clear that securing the benefits of the greening of the economy are not optional; failure to do so offers only increasing instability, damage to vulnerable communities and over-time, a regression of development.[29] [30]

There is no option but to address the goal of sustainability at scale and at a speed commensurate with the need to address the underlying risks to development. In turn, the scale and pace of action needed requires that the private sector, including the capital markets, is mobilized, as well as leveraging the growing level of South-South development cooperation. It is also clear that this has to be done in a way that delivers on the right to development, requiring public action on technology transfer in its broadest sense, and the smartest possible use of limited public funds to deliver on the equitable aspects of sustainable development. [31]

Large-scale private investment into green production methods and industries is needed, but the private sector will only deploy their capabilities and capital to the extent that risk-adjusted returns are positive and competitive. This depends in part of the general investment climate and regulatory environment, but also on the ability to achieve adequate returns from the current technology and the pricing signals related to environmental impacts. [32]

In advance of the Rio+20 Summit the UN Secretary General`s High Level Panel on Global Sustainability highlighted some of the key economic measures that could be taken to accelerate transition to an inclusive green economy, including:

- *Fossil Fuel Subsidies*: reducing such subsidies, currently in excess of US$400 billion annually, to incentivise greener energy and production systems and unlock public resources to deploy more effectively in supporting vulnerable communities.
- *Getting the Prices Right*: Establishing price signals that incorporate environmental externalities, as appropriate using fiscal and regulatory measures such as carbon taxes and emissions trading systems.
- *Sustainable Public Procurement*: Applying sustainable development criteria that leverage the huge potential of an estimated US$3-4 trillion annually of public procurement globally.
- *Guiding Investment*: Encouraging widespread adoption of sustainable development criteria in investment, including by sovereign wealth funds, public pension funds and export credit agencies.[33]

The Panel`s recommendations focused not so much on ways of directly mobilising the funding needed, but on redirecting financing from the main capital markets and reducing the cost burden to developing countries.

Rio+20 supported the need to advance '*green economy in the context of sustainable development and poverty eradication'*, but highlighted that this cannot be a one-size-fits all approach but must instead be responsive to the national circumstances and priorities of different countries at different times. In practice this meant that economic measures were only adopted as recommendations. For example on fossil fuel subsidies countries reaffirmed existing commitments to phase out harmful and inefficient fossil fuel subsidies and invited others to consider rationalizing inefficient fossil fuel subsidies. In terms of

guidance, investment companies were encouraged "... to consider integrating sustainability information into their reporting cycles" where appropriate.[34]

Many of the side events at Rio+20 demonstrated that national policies and practical initiatives are already underway, involving business, cities, and nations applying just such economic measures aimed at shifting private sector investment. Whilst there were concerns raised over the high profile participation of business, in practice these initiatives illustrate an embrace of the involvement of all sectors in the design and implementation of solutions.

Shifting investment patterns: key initiatives launched at Rio+20

i. The United States Government announced it would partner with companies of the Consumer Goods Forum, representing more than 400 companies and brands operating with combined annual revenues of over US$3.1 trillion, to support the Forum's pledge to achieve zero net deforestation in their supply chains by 2020.[35]

ii. Six major development banks including the World Bank and European Investment Bank unveiled a $175 billion initiative to promote busses, trains and cycling as a means of reducing greenhouse gas emissions from the transport sector. The banks pledged to work with 66 agencies that form the Partnership on Sustainable, Low Carbon Transport (SloCaT), providing funding for new public transport investment and supporting initiatives to help mushrooming cities in Africa and Asia tackle road congestion and air pollution. The $175bn of new funding is expected to leverage up to 20 times more investment from the private sector, providing a major new source of capital investment for low carbon projects around the world.

iii. More than 50 countries and 86 companies joined forces to support a World Bank communiqué calling for governments to include the value of natural assets in business decision-making and national accounting systems. Companies including Wal-Mart, Woolworths Holdings, Unilever and Standard Chartered joined countries such as the UK, Philippines and South Africa in signing the World Bank's 50/50 campaign to highlight the need to develop science-based methods for natural capital accounting that would link with GDP and corporate performance measurements.

iv. The United Nations Environment Programme's (UNEP) International Sustainable Public Procurement (SPP) initiative, backed by 30 governments and institutions, aiming to boost public spending on green goods and services through the adoption of more demanding green procurement standards.[36]

The UN's Sustainable Energy for All Initiative was one such initiative highlighted as a way forward in achieving ambitious global goals.

Sustainable Energy for All

Sustainable Energy for All is a multi-sector initiative set up by the UN to engage governments, the private sector, and civil society partners globally with the goal of achieving sustainable energy for all, and to reach three major objectives by 2030; ensuring universal access to modern energy services, doubling the global rate of improvement in energy efficiency and doubling the share of renewable energy in the global energy mix.[37]

To date more than 50 Governments have engaged with the initiative and are developing energy plans and programmes. The majority are from developing countries that have initiated or completed energy sector assessments and gap analyses, laying the groundwork to scale up action in priority areas, undertake strategic reforms where needed, and attract new investments and financial support. Businesses and investors have committed over $50 billion to achieve the initiative's three objectives, while altogether public and private sector commitments seek to benefit more than a billion people.

Pledges to action include:

- **Ghana** is developing a national energy action plan to support capacity-development and innovative financing mechanisms. Countries initiating or completing similar assessments include **Bangladesh, Kenya, Mozambique, Nepal, Tajikistan, Uruguay and Vietnam.**
- The **European Union** announced the initiative "Energising Development" that will provide access to sustainable energy services to 500 million people by 2030 and create a Technical Assistance facility supported by approximately $63 million over the next two years.
- **Microsoft** has committed to going carbon neutral and will be rolling out an internal carbon fee that will apply to Microsoft's business operations in over 100 countries. By putting a price on carbon, Microsoft aims to drive greater advances in efficiency in data centres and buildings, increase the procurement of renewable energy, and reduce travel-related emissions.
- **GDF Suez** will invest in approximately 50 local energy entrepreneurship projects in developing countries by 2020. It will also increase both its own energy efficiency by 40% by 2017 as well as its installed capacity of renewable energy by 50% from 2009-2015.
- **The Renault-Nissan Alliance** has committed approximately $5 billion to commercialize affordable zero-emission vehicles, adding five distinct models by the end of 2012.
- The **Global Sustainable Electricity Partnership** pledges to install 50, 000 solar lanterns that will provide clean electricity to off-grid households.
- **Bank of America** has set a ten year $50 billion environmental business goal. Based on historical performance, the bank conservatively estimates that this should equate to approximately $35 billion in Sustainable Energy for All's focus areas.
- **Multilateral development banks** have committed more than $30 billion towards achieving Sustainable Energy for All's three objectives. The **European Bank for Reconstruction and Development** for example, has committed $8 billion in energy efficiency projects in Eastern Europe and Central Asia over the next three years.

[Source: Sustainable Energy for All Commitments - Highlights for Rio+20].

3 Equity is imperative

Inequality as a structural feature of today`s global economy needs to be addressed in the transition. Ensuring the economic rights of, and outcomes for the poorest and most vulnerable is crucial. Technology upgrading needed for environmental resilience must be combined with policy measures to ensure, in particular, that such advances do not have negative, unintended development consequences.

Sustainable development's universal appeal is underpinned by its vision of inclusive development. Environmental security is of course the ultimate safeguard of continued development. Social development depends on greening of the economy and preventing a lock-in to unsustainable patterns of consumption and production. Failure to avoid such a lock-in will ultimately lead to instability, damage to vulnerable communities and over-time, a regression of development. The option of 'grow first, clean up later' simply does not exist.[38] Yet to make these investments at today`s commercial terms would contribute additional costs and contribute significantly to debt burdens.

Environmental security alone however, will not be enough to ensure that the rights of all to sustainable development are realized.[39] Greening the global economy cannot be undertaken at the cost of undermining the immediate priorities to address poverty alleviation and further human development. UNEP rightly defines a green economy as "…*one that results in improved human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities*".

Transitioning away from a natural resource intensive economy will involve costs and disruptive adjustments to many. Changes in pricing, regulation and demand for environmental externalities (both bads and goods) will shift the basis of comparative advantage both within and between countries.

In many cases addressing the equity implications of the transition will depend on mobilizing additional resources. In other cases existing measures can be redesigned for sustainability and inclusivity. For example, current subsidies for fuel, water and agriculture are expensive, and are rarely pro-poor. It has been estimated that Indonesia spends $21 billion on energy subsidies. This is more than the combined government budget for health, education, social security and defense. Forty percent of the subsidy goes to the ten per cent richest households, and ninety per cent goes to the richer half of the population.[40]

Pro-poor goals can be incorporated with policies designed for more efficient resource use. Expensive and wasteful consumption subsidies for water and electricity can be replaced by, targeted concessional tariffs for low users, and connection subsidies that more effectively target those without access, however as the case below from Ghana highlights getting the political strategy right is crucial. [41]

Fuel subsidy reform in Ghana
In the early 2000s, two attempts to phase out liquid fuel subsidies failed in the face of popular opposition. However, as global oil prices continued to rise, fiscal pressure from subsidies also tightened. In 2004, Ghana was spending around 3% of GDP – well in excess of health spending – on subsidizing fuels and maintaining the state-owned refinery. In 2005, the government embarked on a new round of reform. This time a poverty and social impact analysis was undertaken to reveal the extent to which wealthier Ghanaians benefited from the existing subsidy structure, and the results were used in debates on the issue. Comparisons with neighboring countries were published in the press. There were discussions with trade union leaders. A number of steps were taken to compensate poorer households, including eliminating school fees, capping bus fares and more resources for rural health care and electrification. A cross-subsidy for kerosene was maintained. This round of reform was more successful, in that there were no street protests. However, as global prices spiked in 2007 and 2008, the government froze prices, and after elections in 2008, the policy was reversed. [Source: Laan, T.; Beaton, C. and Presta, B. (2010) Strategies for Reforming Fossil-Fuel Subsidies: Practical lessons from Ghana, France and Senegal, Geneva: IISD]

3.1 National economic strategies for sustainable development

National economic and industrial policies are developing to meet the challenges of the great economic transition. As the recent World Bank report on inclusive green growth notes, for developing countries to benefit from the forthcoming economic transition means overcoming, "…*real-world settings plagued by governance failures, market failures, and entrenched interests and behaviors. It requires complementary policies, including public investments, innovation and industrial policies, education and training, labor market reforms, and communication*". [42]

An important context for this vision has been the resurgent interest in the role of an active "developmental state", principally although not exclusively in developing countries. In particular, the recognition of remaining asymmetries in international markets and the need to leverage economic opportunities associated with domestic markets and public procurement wherever possible, has encouraged the emergence of a new era of economic and industrial policies and planning.

Inspired largely by China`s highly-disciplined national planning process, but also by the experiences of countries including Germany and the Republic of Korea, growing numbers of developing countries are formulating large scale industrial plans.

The interlinkage between economic risks and opportunities and the social and environmental aspects of sustainable development is increasingly reflected in the development of national plans which integrate all three dimensions and identify priorities for the country. For some this may be the more effective management of agriculture and forestry, whilst for others it is focused on manufacturing, mining or services. For all, it will involve a continued investment in education and health to support the development of human capabilities, and investment in enabling physical infrastructure, notably energy, transport and information and communication technology

4 Development Cooperation in the 21st Century

Development cooperation is undergoing its own transition. Development cooperation is itself effected by the broader contextual changes highlighted. On one hand the current economic recession and its longer-term consequences both puts pressure traditional sources of development cooperation, and challenges its underlying approach to supporting economic growth. At the same time there is an emerging pattern of non-traditional cooperation emerging between developing nations. Whilst neither comparable nor substituting for traditional sources of development cooperation, this growing South-South cooperation will, without doubt, play a key role in mobilizing and channeling resources for development. Unlike traditional development cooperation however, this new pattern of cooperation will be built more explicitly on a foundation of mutual benefit, particularly economic.

The Forum on China Africa Cooperation is one example of such South-South Cooperation combining concessional support with trade cooperation and policy coordination in pursuit of mutual development. A key example of this is the China-Africa `FOCAC` platform which combines aid (mainly focused on health and education) with a larger package of investments and trade deals and other state-sponsored loans, which include export buyers' credits, official low cost and resource-backed infrastructure loans, and strategic lines of credit to Chinese companies. Over two-thirds of African economies now have a financial agreement with the Chinese that funds infrastructure development.

The Forum on China-Africa Cooperation (FOCAC)

The Forum on China-Africa Cooperation (FOCAC) was initiated in 2000 as a platform established by China and friendly African countries for collective consultation and cooperation. High-level Ministerial Meetings are held every three years, as well as sub-forums between functional departments.[43]

The Forum seeks to serve as a focus for the development of a relationship based on complementarity and cooperation, mutual benefit and sustainable development. The summits cover economics, politics and international affairs.

One of the measures announced as part of the Beijing Summit in 2006 was the establishment of the China-Africa Development Fund (CADFund), an equity fund managed by the China Development Bank which aims to promote economic cooperation between China and Africa and advance Africa's economic development by investing directly in Chinese enterprises operating in Africa. CADFund operates commercially in its relationships with enterprises, but with a mandate that seeks to embody the Chinese government's diplomatic and economic policies towards Africa and boost a new type of strategic partnership between China and Africa.

The most recent FOCAC summit in Sharm-El-Sheikh in 2009 included pledges for assistance in agricultural development, education, health, infrastructure and disaster relief including both trust funds and concessional loans but also collaborative development of China-Africa Friendship schools, technology demonstration centres and infrastructure projects. The summit also included pledges to continue to promote the conclusion and implementation of bilateral agreements on investment promotion and protection, to increase the size of CADFUND to US$3 billion, enhanced trade cooperation and R&D collaboration. It also covered academic, cultural and sporting exchanges.

Development cooperation is also transitioning from a predominantly state-to-state activity to one increasingly involving private actors, notably business. The Earth Summit in 1992 brought the role of civil society to the fore in international development. However the role of business in sustainable development was just beginning to be appreciated, but there was no expectation that the private sector would play an active role as a stakeholder in shaping the development process and contributing to the international debate on its future. And there was no means for them to do so. The World Business Council for Sustainable Development was set up on the eve of the Rio conference to bridge this gap.[44] Since then it has been joined by a vast range of national and international, generalist and issue specific groupings of businesses and multi-stakeholder initiatives. They aim to raise awareness, set standards, lobby for progressive regulation and enable collaborative action in areas where market and political failures prevent business action contributing to solving development challenges.[45]

Increasingly, businesses are being called on to play an direct role in financing and operationalizing aspects of the development process, from the provision of public services, to financing infrastructure, and co-developing with civil society corporate-focused sustainability standards covering everything from sustainable forestry to human rights issues associated with mining to privacy on the internet.[46]

Public mechanisms are urged to avoid picking winners and losers, but to build the underlying infrastructure of new markets that reward good performance and punish bad, and which enable expansion of investment, research and competition in areas of social and economic priority. This can mean setting new rules, reducing information asymmetries and levelling the playing field, reducing investment uncertainty, reducing barriers to entry and to scale and using public procurement.[47]

DFID financing for business innovation in India

DFID India has begun to explore two different ways to support the development of viable business models for off-grid renewable energy provision. One is through grants for product and business innovations. The grants are made to civil society organizations to develop partnerships between private sector firms, communities and government, and may be used for activities such as capacity building, training, research and community mobilization. The aims are to help build supply chains, demonstrate commercially viable business models, and generate evidence to influence policy and regulation.

The second approach is 'results-based financing', or RBF. This model, which DFID is also trying to develop in several other countries, pays SMEs or other delivery agents for reaching a set of agreed outcomes. The idea of this approach is to incentivize the scaling up of viable business models, flexibility and innovation. It also aims to maximize value for money through a reverse auction mechanism. RBF allows a targeting of business models in poorer areas. However, given that the firms involved have to carry the cost of financing the product or service, a complementary element involves ensuring that they can also access upfront financing cheaply.

[Source: Lockwood, Matthew and Catherine Cameron (2012) Approaches to Low Carbon Energy and Development Bridging Concepts and Practice for Low Carbon Climate Resilient Development, Bridging Paper, IDS-DFID Learning Hub.]

ESCAP: testing pro-poor green business models

ESCAP, the UN Environmental and Social Commission for Asia and the Pacific recognises that the region has arrived at a historical crossroads: development goals are within reach, but conventional growth strategies have become unviable. Resource constraints, price volatility and the climate crisis have removed business-as-usual as an option for all economies, and are seeking to advance a new growth strategy that turns resource constraints and the climate crisis into economic growth opportunities.

They have developed the Low Carbon Green Growth Roadmap for Asia and the Pacific which explores the opportunities that a low carbon green growth path offers to the region and highlights the shifts needed to achieve such a bold and ambitious transformation of the economic system. This includes shifts in the "visible structure" of the economy; the physical infrastructure of transport, buildings and energy systems, together with the "invisible structure", prices, rules and norms and shifting both national development strategies and business models to reflect the opportunity to deliver more equitable and environmentally sustainable growth.

One way that ESCAP is promoting this in practice is through a community partnership approach which aims to test and demonstrate how mutually beneficial relationships between impoverished communities and socially responsible businesses can create sustainable value.

For example, in Cambodia, the government has established a National Green Growth Roadmap. The roadmap recognises that addressing the high costs, intermittent supply and lack of access to electricity which causes people to rely on environmentally unsound, expensive, dirty, unreliable, and dangerous sources for energy is an economic, social and environmental priority.

The Pro-Poor Green Business Pilot Project is being implemented which involves the use of environmentally sound technologies such as rechargeable lamps and solar-powered recharging stations, made available via a low-fee rental scheme. Villagers are trained to administer and maintain this scheme by themselves, granting them energy independence, enhancing their social development, and ultimately stimulating economic growth.

The pilot is being carried out as a partnership between UNESCAP, Sunlabob Renewable Energy company, the Cambodian Renewable Development Team, the National Green Growth Secretariat of the Ministry of Environment of Cambodia, and the Korean International Cooperation Agency. If successful, the initiative will serve as a model for future Pro-Poor Green Business projects both in provincial Cambodia as part of the National Green Growth roadmap, and in other developing countries.

[Source UNESCAP (2012) Low Carbon Green Growth Roadmap for Asia and the Pacific]

USAID Grand Challenges Program

The USAID Grand Challenges for Development program is designed to define solvable international development problems. It invites innovators to apply science, technology, and creative business models to address obstacles in the path of human development, to produce transformational, globally scalable, and sustainable change. The first two Grand Challenges are "All Children Reading" and "Saving Lives at Birth" and, along with USAID, are supported by founding partners including The Bill and Melinda Gates Foundation, Grand Challenges Canada, The World Bank, World Vision, AusAID and the Norwegian Ministry of Foreign Affairs.

The Grand Challenges for Development program is part of an ongoing effort by USAID and partners to catalyze a broad range of actors to make significant and measurable progress against specific development challenges that people face around the world. The program aims to harness the 'Intelligence of the crowd' to collectively solve these problems.

The third Grand Challenge launched in June 2012 'Powering Agriculture: An Energy Grand Challenge for Development' is focused on promoting affordable, clean energy solutions for farmers and agribusinesses throughout the developing world. The Energy Grand Challenge supports market-driven approaches that link modern energy service providers with farmers, processors, input suppliers, and traders. These approaches aim to further integrate clean energy technologies in the agricultural sector to increase production, employ new value-added processing techniques, and reduce post-harvest loss. Success will result in enhanced food security and increased economic resiliency in the host communities.

Powering Agriculture is implemented with the Swedish International Development Cooperation Agency (Sida), Duke Energy, the US Department of Agriculture (USDA), and the African Development Bank (AfDB).

http://www.poweringag.org/

Business has also engaged with the international development community to help to shape some of these new rules and markets and to experiment with governments and other partners to learn what works where, how, and why. New initiatives have emerged seeking to blend public and private competencies and resources in advancing, for example, sustainable energy for all, green infrastructure investment, environmental technology transfer and education for higher technology economies.

Enabling, encouraging and promoting business to adopt sustainability standards

The use of 'sustainability standards' which enable businesses to assess, improve and communicate the quality of their social and environmental management and impacts has been recognized as a key way to influence production, consumption and investment patterns. These include eco-labels, environmental management standards and product and sector specific standards such as those covering sustainable forestry or fisheries.

In some cases standards are linked to mandatory compliance mechanisms or policy incentives, in others they are voluntary standards driven by consumer demand, but governments can still support their uptake by providing a basic legal framework for eco-labels. Sustainability standards are being developed and adopted both in developed and developing countries and through international partnerships. Examples include Japan's Eco-mark, China's HUAN eco-label, India's Ecomark and Mexico's adoption of the GHG Protocol.

Donors are working with national governments, with business groupings and with standards setting bodies such as the ISEAL Alliance to encourage the use of sustainability standards. Emerging economy leaders such as China, India and Brazil are also realizing that sustainability standards can be used as effective tools to achieve domestic policy objectives and open up market growth opportunities.

The growing importance of South-South cooperation embedded in mutually beneficial economic and industrial investments and initiatives has further deepened the engagement of the business sector in policy-supported, international development. And the growing recognition of the need for a major upgrading of the global economy, advanced most rapidly from the recognition of the facts and implications of climate change, has accelerated this pattern of public-private action with a particular focus on technology and the mobilization of private finance.

Development cooperation in pursuit of sustainable development should recognize its changing context in taking advantage of these new actors, interests and approaches, and resource flows.

5 Realizing the Potential of Development Cooperation

Sustainable development is not a subset of development and economic transformation is the strategic imperative in realizing the vision. Whilst continued direct support to vulnerable communities is essential, indeed more important than ever in such a period of volatility and change, efforts need to be focused on the strategic goal of rapid, large-scale transformation of the international economy.

In order to concentrate political attention, cooperation, and resources on key priority areas a set of Sustainable Development Goals will be developed through an intergovernmental process over the next year. Although it has not been agreed how the Sustainable Development Goals (SDGs) will relate to the successors to the Millennium Development Goals, it was agreed that the process "needs to be coordinated and coherent with the processes to consider the post-2015 development agenda."[48] A further intergovernmental process is being established to assess financing needs and propose options on effective financing.

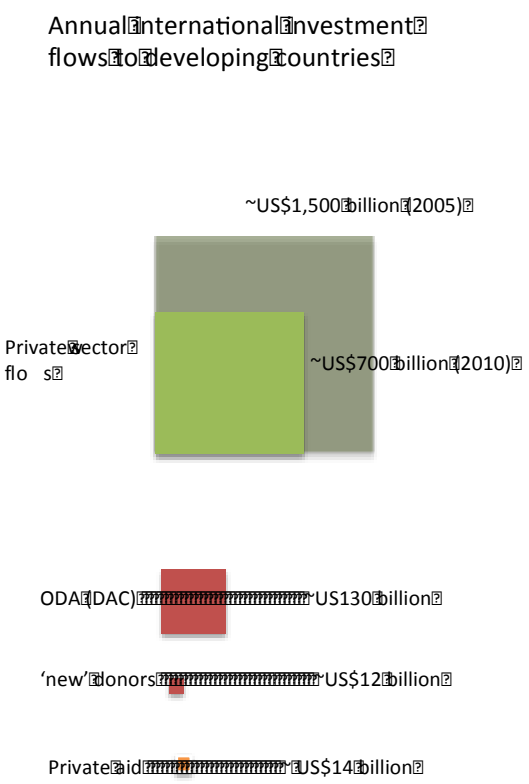
It is clear that the volume and application of development cooperation will be crucial in enabling the economic transformations required to secure sustainable development. During the Rio+20 Conference itself voluntary funding commitments worth $513 billion were made by public and private actors, with $323 billion of these relating to the goal of achieving universal access to sustainable energy by 2030. However the fact that these commitments came from existing public budgets and from the private sector underline the need to use existing development cooperation carefully to achieve social, environmental and economic benefits and to enable profitable delivery of socially and environmentally sound solutions.

As the figures below illustrate, development cooperation is only one part of the overall funding mix.

Sources of finance for development

The graphic below illustrates the order of magnitude of different sources of international funding flows to developing countries.

The largest flow of international investment into emerging economies is from the private sector. Foreign capital flows into emerging markets totalled around US$700 billion in 2010, half of their peak of US$1.5 trillion in 2005. This was made up of FDI (36%), foreign purchase of securities (27%) cross border lending (23%) and foreign purchase of equities (14%).[49] Overall however, emerging economies provide a net outflow of capital, through the foreign reserve and sovereign wealth fund investments.



Official Development Assistance (ODA) from OECD member countries amounts to around US$130 billion a year (in 2009 dollars). This is accounts for than 1% of investment globally, in some Least Developed Countries represents up to 6% of total investments

South-South ODA, and broader cooperation is also rising and adds to this total. Net ODA disbursements by 13 donors that are not members of the OECD's Development Assistance Committee rose from $1.5 billion in 2000 to $5.1 billion in 2006.[50] This figure however, does not include expanding ODA and other official flows from China and India. It was estimated that overall South-South development cooperation including these countries was up to US$12 billion, adding an additional 10% to traditional aid flows. [51]

Private contributions are also on the rise. Commitments of private development assistance grew from $4 billion in 1999 to $13.7 billion in 2006, led by new public-private partnerships for health such as GAVI (the Global Alliance for Vaccines and Immunization) and the Global Fund to Fight AIDS, Tuberculosis and Malaria).[52]

However, while international financial flows (and the technology, expertise and linkages they bring) are important, the vast majority of investment flows are raised domestically. Governments are typically responsible for 10 – 15 per cent of total investment in physical assets in a country, with over 90 per cent of the funds coming from domestic sources. 50 – 90 per cent of private investment is also raised domestically in most regions. For infrastructure such as energy, transport and water the average split is 50% domestic public investment, 20% domestic private and 30% foreign investment.[53]

Development cooperation can realize its potential by aligning itself to the larger-scale

economic transitions required to secure sustainable development. This in turn requires a two-fold approach viz. on the one hand using scarce public resources to catalyze, accelerate and amplify this transition, and on the other hand supporting vulnerable communities in mitigating the negative impacts and taking advantage of the opportunities associated with this transition.

5.1 Supporting national strategies for transformation

National economic and industrial policies are developing to meet the challenges of the great economic transition. China has increasingly focused on green growth opportunities in both its Eleventh and Twelfth Five-Year National Social and Economic Development Plans. This includes plans to invest in environmental protection to the tune of US$450 billion, put an extra US$450 billion into renewable energy and another US$600 billion into smart grids.[54] In India the National Action Plan on Climate Change, encompasses an extensive range of measures including eight national missions focusing on renewable energy, energy efficiency, clean technologies, public transport, resource efficiency and tax incentives. Kazakhstan has introduced elements of green growth into the National Sustainable Development Strategy since 2007; Cambodia developed a National Green Growth Roadmap in 2010 and the Republic of Korea has made low carbon green growth the national vision for the country to follow for the next 60 years. [55]

A national plan for low-carbon transformation in Mexico

In 2010, Mexico was ranked the 12th largest economy in the world and among the top 15 globally in carbon emissions. Its government believes there is huge potential for green growth in Mexico and has set out to prove that a developing country can mitigate and adapt to climate change without hurting the economy.

In 2004, Mexico adopted the international Greenhouse Gas Protocol as a means to engage the private sector to understand the opportunities. Through an international partnership and supported by USAID they began working with businesses to build capacity of businesses to measure, reduce and communicate their carbon footprints. It has achieved 100% coverage of the major companies in the cement, oil and brewery sectors, and 75% coverage in steel and mining.

This data helped to support the development of a national economy-wide approach championed through the Inter-Ministerial Commission on Climate Change. The National Strategy on Climate Change was integrated into the National Development Plan for 2007 to 2012. Through this process Mexico made a pledge to reduce its emissions to 30% below 'business as usual' by 2020 (and to 50% below 2002 levels by 2050). The plan contains hundreds of actions designed to benefit the economy or to be cost neutral.

Donors have supported this program with finance aimed at both climate and development objectives. The German government-owned development bank, KfW for example offers finance for low cost loans for renewable energy development, and energy efficiency in buildings and appliances.

In 2009 President Calderon announced a special climate change programme, identifying specific projects with their low carbon benefits. One major project was in the transportation sector – the Urban Transport Transformation Project (UTTP) aims to modernise the urban transport systems of Mexico's large cities by putting in place efficient, low carbon bus rapid transit systems and light rail. The plan aims for carbon emissions reduction, reduced pollution and congestion, cost savings and more efficient, liveable and internationally competitive cities.

http://www.ccap.org/docs/resources/1058/Climate%20Finance%20Works.pdf

A new generation of international initiatives, supported by both traditional development cooperation and South-South collaboration, are engaging at the national and sub-national

levels to advance policy initiatives that are, in turn, driving forward a new era of economic and industrial strategies. From Ethiopia to Indonesia and Colombia, and from Vietnam to Guinea, governments are drawing support from this new generation of international initiatives to support planning and investment mobilization for new and cleaner energy systems, transport and ICT infrastructure and investment in sustainable land use practices. Such developments are in turn challenging other aspects of international cooperation, including existing trade rules and prospective climate arrangements. Development cooperation flows to support developing country engagement in these crucial policy arenas will be essential to ensure that internationally agreed policy frameworks evolve in development-friendly ways.

Norway and Brazil partner for sustainable development in the Amazon

Emissions due to forest degradation in developing countries may contribute one-fifth of global CO2 emissions. Deforestation of the Amazon, driven by timber, ranching and agriculture make Brazil one of the world's top ten emitters.

Norway has been one of the main champions and funders of early experiments in REDD (Reducing Emissions from Deforestation and Forest Degradation), a plan born out of the 2007 UN climate talks in Bali to pay developing nations like Brazil to implement sustainable forest practices.

Brazil, together with Norway, started the Amazon Fund in 2009. The Amazon Fund has been established as a funding vehicle to support Brazil's national plan for sustainable development in the Amazon. Norway agreed to provide up to US$1 billion up to 2015. A key innovation is that this is not managed in a traditional donor relationship but on a pay-for-performance basis related to forest carbon emissions.

Performance of the national plan is assessed using data from satellite images which track deforestation. Maintaining a downward trend in deforestation enables Brazil to draw down on the Norwegian funding commitment and use it to support projects and activities that are aligned to national and state goals, including through encouraging sustainable economic practices and strengthening wider surveillance and law enforcement.

http://www.ccap.org/docs/resources/

Island ambition: A Pacific Island approach to sustainable energy

Diesel generators are the main or sole source of electricity generation in most Pacific countries, leaving them vulnerable to international price fluctuations and escalating fuel costs. Almost every aspect of Pacific economies is underpinned by imported fossil fuels. In many cases, the cost of importing fuel is many times higher than all export earnings combined, so Tokelau's, and the Pacific's, dependence on diesel is bad for the economy as well as the environment. Diesel is particularly risky as it is transported through the Pacific's delicate marine environments.

An innovative renewable energy project in Tokelau seeks to transform Tokelau in transitioning from dependence on fossil-fuels to renewable energy. In partnership with the New Zealand Aid Program, Tokelau is installing renewable energy systems that will dramatically slash its reliance on imported fossil fuels (almost 2,000 barrels of diesel a year will no longer be required). Around 4000 solar panels and batteries will be installed across

all the three atolls of Tokelau, making the plant one of the largest standalone solar system in the world.

During periods of prolonged cloud cover generators run on coconut oil will supply power and simultaneously recharge the battery bank. This hybrid solar-coconut oil system will enable Tokelau to be self-reliant for its electricity needs and be more energy secure. It will also create employment opportunities and help the local population generate additional income. More importantly, the amount spent annually on the import of fossil fuel will be spared to support social benefits for the islanders.

Undertaking a project of this scale on all three atolls is no mean feat. The Department of Energy consists of two staff members including the Director. The closest atoll is around 500km north of Samoa; there are no airstrips or wharves, and the only access is a long boat trip from Samoa that ends outside the reefs, where a landing barge takes passengers and equipment to shore. However the atoll's small population and low power demand means it's possible to go from 0% to over 90% renewable electricity in one push.

http://www.aid.govt.nz/media-and-publications/development-stories

5.2 Leveraging private investment and mutual benefit

Increasingly, funders are seeking ways to channel funds through innovative mechanisms that seek to leverage and influence much larger flows of private investment.[56] There has now been significant experience with developing these mechanisms, and there is an emerging body of tools and mechanisms for assessing the effectiveness of such mechanisms. These mechanisms have also been proposed for the operation the private sector window of the UN Green Climate Fund.[57]

In the context of national economic strategies for green growth, mutually beneficial cooperation takes on particular significance. Cross-border cooperation, for example, in the development of renewable energy or public transport infrastructure might today involve a blend of concessionary and commercial finance that in turn link together industrial partners from both the financing and recipient country. Far from there being benefits in separating out the concessionary finance, its intended purpose is to leverage other finance and associated economic benefits for both countries.

A growing number of initiatives involving both traditional actors such as the World Bank and new players such as the Korean-based Global Green Growth Institute are engaging with national, regional and city governments in advancing "green economy" plans. Interventions are particularly focused on identifying investment priorities, and packaging them to be attractive to both commercial and concessionary sources of finance.

This new generation of international initiatives are emerging as co-ordination and partnership platforms in pursuit of large-scale lower-cost financing, development-focused business standards, and co-ordination and knowledge transfer. They are working at the global, national and sub-national level to advance policy initiatives that are in turn driving forward a new era of economic and industrial strategies to mobilize investment for new and cleaner energy systems, transport and ICT infrastructure and investment in sustainable land use practices. Such developments are in turn challenging other aspects of international cooperation, including existing trade rules and prospective climate arrangements. Development cooperation flows to support developing country engagement in these crucial policy arenas will be essential to ensure that internationally agreed policy frameworks evolve in development-friendly ways.

The Critical Mass Initiative convened by the World Economic Forum in 2010 and 2011 was a lab for some of these experiments, providing a forum for sharing lessons from practical experimentation and collaboration between the public and private sectors. Climate finance made available following COP15 in Copenhagen in 2009 has also exemplified this pattern. The Capital Markets Climate Initiative (CMCI) sponsored by the UK government has similarly been an incubator to help accelerate the response to this financing challenge by supporting the scale up, focused on catalysing systemic change by assisting policymakers in understanding why and how public sector action can help mobilise private capital and encourage new markets in low carbon investments. For example, the CMCI has produced a set of Principles for Investment Grade Policy and Projects, building on these early experiences.[58] The Global Green Growth Institute, Sustainable Energy for All and Clean Energy Ministerials are further examples of strategic collaboration aimed at scaled transformation.

Korea and Green Growth – National leadership and international cooperation

The Korean government is a high profile national and international advocate of "green growth" which has been declared as the country's new development paradigm for the next 60 years. The government is seeking to harness the imperative of low-carbon transition to harness green technologies and clean energies to create new growth engines and jobs. This has been integrated into the country's national planning, including a commitment to spend 2% of the annual GDP on green growth policies. The Korea International Cooperation Agency (KOICA), also supports collaboration on green growth, such as through the East Asia Climate Partnership.

Korea also launched the Global Green Growth Institute in Seoul as an international institution for research on green growth theories and to support the developing countries for their green growth policies and projects. It is designed to be an open, global laboratory to support experimentation and collective learning by countries seeking to leapfrog the resource-intensive and environmentally unsustainable model of industrial development. It thus aims to create an international platform for evidence-based learning and policy innovation that helps to illuminate practical opportunities for country-led and industry-led progress on the twin imperatives of economic development and environmental sustainability. The Global Green Growth Institute facilitates public-private cooperation at two levels viz. linking companies to developing country governments that are seeking private sector finance, technology and expertise to accelerate green growth and building intra- and cross-industry programs of cooperation to expand markets for resource-efficient products, services and industrial processes.[59]

The Clean Energy Ministerial

The Clean Energy Ministerial (CEM) is a high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices and to encourage the transition to a global clean energy economy. Initiatives are based on areas of common interest among participating governments and other stakeholders. It was set up at the UNFCCC Conference of Parties in Copenhagen in December 2009 to bring together ministers with responsibility for clean energy technologies. The CEM works on a "distributed leadership" model, allowing it to be more flexible and creative than consensus-based processes. Any government interested in furthering a substantive idea on clean energy technology is encouraged to identify willing partners and proceed. The CEM encourages robust involvement by key private-sector partners (including both industry and nongovernmental organizations). These partners are encouraged to provide high-level policy input that is gathered at each ministerial meeting and to participate directly in the technical work of the initiatives themselves.[60]

The Green Growth Action Alliance

The Green Growth Action Alliance is a new partnership initiative addressing the estimated $1 trillion annual shortfall in green infrastructure investment, which was at the Business 20 (B20) Summit in Los Cabos, Mexico. As a concrete first step, the Alliance will assist Mexico in unlocking private finance for investments in businesses and technologies that will help reduce green house gas emissions by 30% by 2020. In partnership with the Mexican government, the Alliance will identify key green growth initiatives, design strategies to overcome these obstacles, and draw in private investment.

Designed in partnership with G20 governments, the Alliance calls for actions to be adopted in five target priority areas over the next three years:

- Promote free trade in green goods and services;
- Achieve robust carbon pricing;
- End inefficient subsidies and other forms of fossil fuel support;
- Accelerate low-carbon innovation; and,
- Increase efforts to target public funding to leverage private investment.

Alliance members will focus on driving greater investments into clean energy, transportation, agriculture and other green growth investments. Members of the Alliance include leading companies such as Accenture, Samsung Electronics Company, KfW Bankengruppe, Bank of America Merrill Lynch, Deutsche Bank Group, Enel, and Vestas Wind Systems. These companies will partner with public bodies such as the World Bank Group, the Organization for Economic Cooperation and Development (OECD), the Overseas Private Investment Corporation (OPIC), the Climate Policy Initiative (CPI) and the United Nations Foundation. The Alliance will identify and deploy public money that can be used to unlock and utilize private sector investment, identify innovative financing and de-risking structures, support pilots testing new models and market frameworks, and feed results into key international processes.

[Source: World Economic Forum (2012) Green Growth Action Alliance to Address $1 Trillion Annual Shortfall in Green Investments, Press Release]

5.3 Supporting people's capacity to respond

Development cooperation can and should support these innovative initiatives, but also needs to support the resilience of communities and strengthening of human capacity and institutions essential for developing countries to benefit from the economic transition toward an environmentally-leaner global economy.

Ensuring that green growth is inclusive requires massive investment in people to enable them and the nations within which they live to avail themselves of the new market and employment opportunities. These investments are complementary. For example, lack of access to modern services, such as improved water or energy services, contributes to girls' absences from school. On average, rural women and girls spend between one and four hours a day gathering fuel and carrying water needed for family meals.[61] Additional pressures on natural resources required for household livelihoods undermine children's education, which undermines productivity. In areas of rural Kenya where women have limited amounts of education, a year of primary education has been associated with a 24% boost in maize yields.[62]

Support to communities made even more vulnerable by the impact of rising commodity prices and environmental instability must be a priority, as must be the need to provide enabling policies, mechanisms and associated resources to protect against unintended exclusion of some communities from the benefits of the great economic transition.

Benefiting from the transition is by no means a necessary outcome. Technological deepening, in particular, across every aspect of the global economy, will challenge less developed economies with relatively weaker education systems and infrastructure for technology absorption.

There are inherent equity, efficiency and effectiveness dilemmas in choosing approaches and determining how to share the costs and benefits in the transition to sustainable development. Transparency is crucial, but not sufficient to enable these debates to take place in public and allow affected people to have access and input to decision-making.[63]

People's empowerment in claiming their rights through access to the foundations of nutrition, health and education and having voice, information, and political influence is of course essential if the goal of fulfilling economic and social rights in a resource-constrained world are to be realized. Transformative solutions involve complex political and economic decisions and in many cases trade-offs, at least in the short term, between equity, efficiency and effectiveness. If new value is created from better use of the environment where the rights of local communities to land, water, and political participation are insecure, there is a real risk that benefits will be expropriated, while the costs will be borne through the local loss of access to environmental resources.[64]

The Bolsa Floresta and the Amazonas Sustainable Foundation

In the State of Amazonas in Brazil an innovative partnership between the state government, a private foundation Amazonas Sustainable Foundation (FAS) and the global hospitality management company, Marriott International is trailing an approach to enabling sustainable development in the Amazon. It is part of a state-wide economic development strategy which seeks to enable local people to benefit from conserving the Amazon and creating sustainable forest-based industries based on local products and eco-tourism.

Residents of Protected Areas receive payments in recognition of their role as stewards of the forest. In order to be eligible to receive the grants, families must enroll their children in school, sign a zero deforestation commitment, and attend a two-day training program on environmental awareness. Each eligible family receives a monthly stipend of R$50 ($30), paid to the mother through a bank card. Community associations can also be eligible to receive payments of up to R$4,000 ($2,500) to support sustainable income generation activities, such as honey production, fish farming, and sustainable forest management.

The project is a pilot for an approach to financing these public policies through international carbon-related funding. The project is particularly noteworthy in that it is seeking to demonstrate that not only regions close to the agricultural frontier but areas of 'high-forest low-deforestation' (HFLD) at the core of the Amazon can and should benefit from Reduction of Emissions from Deforestation and Forest Degradation (REDD+) payments. It also seeks to show how such funding can be used as a catalyst for sustainable development in the region "making the forest worth more standing than cut".

It is early days in the development of this pilot approach. In order to prove effective overall, the model needs to work on three levels: on the ground action, carbon emission reduction and viability of funding. Several methodological, policy and financial hurdles are still to be overcome, which will contribute to the project's evolution and also to the broader debates and learning on how to set up a system for linking forest conservation and climate finance.

[Source: Zadek, Simon, Fernanda Polacow and Maya Forstater (2012) Win-Win-Win? Trialling an approach to catalysing climate, community and economic sustainability at the core of the Amazon, A reflection on the lessons and challenges from the Juma REDD+ Project, FAS.]

6 Conclusion: Better and Different

The overarching conclusion from this analysis is that sustainable development should not be seen as a subset of development.

Equitable development for all must always and everywhere be the vision and goal. As articulated clearly by the Brundtland Commission a quarter of a century ago, realizing development requires that environmental dimensions are addressed. Economic transformation is the strategic imperative in realizing the vision.

Since this vision of 'three pillars of development' was first articulated it has become clear that this is an immediate need, rather than a 'nice-to-have'; environmental security and development are inextricably linked. Moreover, the economics of sustainable development must centrally and urgently be addressed.

Whilst continued direct support to vulnerable communities is essential, indeed more important than ever in such a period of volatility and change, efforts need to be focused on the strategic goal of rapid, large-scale transformation of the international economy.

Rio+20 reaffirmed the universality of sustainable development as a global goal, but also made very clear the limitations to what can be achieved through multilateral agreement at this time. In this context, the volume and application of development cooperation will be crucial in enabling national economic transformations, and in supporting an upscaling of international ambition.

Development cooperation has to do what it does better and at the same time evolve to remain relevant to development in the 21st century. Much of what the development community already does will continue to be of crucial importance, from humanitarian assistance to on-going investment in health and education. Primary support to education across vulnerable communities is an ever-greater imperative in this context, as is support and collaboration with higher levels of education to ensure that over the next critical decade or two, nations can rise to the challenges and opportunities associated with the on-going economic shifts.

The challenge for these areas may at times be to evolve new approaches, but often is about the operational aspects of doing what is done more effectively. The aid effectiveness principles of *national priorities*, *results focus*, *inclusive partnerships*, *transparency and accountability* reflect this challenge.[65]

At the same time, the changing context of sustainable development, and the momentous shifts in the global economy that flow from this changing context, challenge development cooperation to evolve into a new understanding of its role and its way of working, and to create scaled and relevant impacts.

Centrally, the message here for development cooperation is to accelerate the momentum towards green economic shifts at city, national, regional and sector level.

A new global economy is already in the making, driven in significant part by the policy and business interests reflected in environmental imperatives. Development cooperation can and should mitigate negative unintended consequences of these changes, but can do much more. Careful but ambitious leveraging of the power of markets and in particular private finance, and alignment and complementary action to growing South-South cooperation can place development cooperation at the leading edge of change and in a leadership role in securing sustainable development for all.

Development finance mechanisms are increasingly being designed with a view to using scarce public funds to leverage private finance to invest in development infrastructure, and enable institutional and human capacity development.[66] This briefing has highlighted some of the new institutions and collaborative platforms that have emerged to advance opportunities for collaboration and private resource mobilization. Still in their infancy, such initiatives are providing the experiments in new ways of deploying development cooperation from which much can be learnt and built on.

Bibliography

3GF (2012) Analytical Framework: Accelerating Green Growth through Public Private Partnership, Global Green Growth Forum

Agrawala et al. (2009).) "Assessing the Role of Microfinance in Fostering Adaptation to Climate Change", OECD Environment Working Papers, No. 15, OECD Publishing, Paris.

Aldy, Joseph and Robert Stavins (eds.) (2010) Post-Kyoto International Climate Policy: Implementing Architectures for Agreement, Cambridge: University Press.

Ali, Shimelse and Nida Jafrani (2012) China's Growing Role in Africa: Myths and Facts, International Economic Bullitin, February 9, 2012, Carnegie Endowment for Peace

Ban, K-M. (2011). Sustainable Energy for All. s.l.:United Nations

Bowen, Alex and Alex Bowen and Sam Fankhauser (2011) Low-Carbon Development for the Least Developed Countries, WORLD ECONOMICS • Vol. 12 • No. 1 • January–March 2011

Brown, J and Jacobs, M. (2011). Leveraging Private Investment: The Role of Public Sector Climate Finance.

Brown, J., Buchner, B., Wagner, G. & Sierra, K. (2011), Improving the Effectiveness of Climate Finance: a survey of leveraging methodologies, Venice: Climate Policy Initiative.

Buchner, B., Brown, J., & Corfee-Morlot, J. (2011). Monitoring and Tracking Long-Term Finance to Support Climate

Buchner, Barbara, Angela Falconer, Morgan Hervé-Mignucci, Chiara Trabacchi and Marcel Brinkman (2011) The Landscape of Climate Finance, Venice: Climate Policy Initiative.

Caperton, R. (2010), 'Leveraging Private Finance for Clean Energy: A summary of proposed tools for leveraging private sector investment in developing countires', Global Climate Network Memorandum, Washinton, D.C.: Center for American Progress.

Castelli, Massimiliano and Fabio Scacciavilliani (2012) The New Economics of Sovreign Wealth Funds, John Wiley and Sons.

CCS (2011) Evaluating China's FOCAC commitments to Africa and mapping the way ahead: A report by the Centre for Chinese Studies Prepared for the Rockefeller Foundation, January 2010

CMCI (2012) Principles for Investment grade policy and projects Report produced for the Capital Markets Climate Initiative (CMCI) Working Draft, March 2012.

Coffee Morlot, Jan (2009) Understanding Mitigation Support Financing, OECD Presentation.

Dobbs, Richard Susan Lund, Charles Roxburgh, James Manyika, Alex Kim, Andreas Schreiner, Riccardo Boin, Rohit Chopra, Sebastian Jauch, Hyun Kim, Megan McDonald, and John Piotrowski (2010) Farewell to cheap capital? The implications of long-term shifts in global investment and saving, London: McKinsey Global Institute.

Dobbs, Richard, Jeremy Openheim, Fraser Thomson, Marcel Brinkman and Mark Zornes (2011) Resource Revolution: Meeting the world's energy, materials, food, and water needs, London: McKinsey Global Institute.

Doornbosch, Richard , Dolf Gielen and Paul Koutstaal (2008) Mobilising Investments in Low-Emission Energy Technologies on the Scale Needed to Reduce the Risks of Climate Change, Paper for the OECD Round Table on Sustainable Development.

Drexhage, John and Deborah Murphy (2010) Sustainable Development: From Brundtland to Rio 2012, Background Paper prepared for consideration by the High Level Panel on Global Sustainability at its first meeting, IISD.

ECOSOC (2005) "Achieving the Internationally Agreed Development Goals - Dialogues at the Economic and Social Council "

ECOSOC (2008) Achieving Sustainable Development and Promoting Development Cooperation - Dialogues at the Economic and Social Council

ECOSOC (2009) Support to UN Development Cooperation Forum 2010: South-South and Triangular Cooperation: Improving Information and Data.

Evans, Alex and David Steven (2012) Sustainable Development Goals – a useful outcome from Rio+20?, New York: NYU Center on International Cooperation.

Eyraud, Luc, Abdoul Wane, Changchang Zhang, and Benedict Clements (2011) Who's Going Green and Why? Trends and Determinants of Green Investment, IMF Working Paper WP/11/296

FAO (n.d.)Women, Agriculture and Food Security, factsheet.

Forstater, M (2012) Towards Climate Finance Transparency, Publish What You Fund.

Forstater, Maya, Saleemul Huq and Simon Zadek (2009) The Business of Adaptation, Briefing paper IIED/AccountAbility.

Forstater, Maya, Simon Zadek, Yang Guang, Kelly Yu, Chen Xiaohong, Mark George (2010), Corporate Responsibility in African Development: Insights from an Emerging Dialogue, Institute of West Asian and African Studies of the Chinese Academy of Social Sciences, Working Paper 60, Corporate Social Responsibility Initiative, Harvard Kennedy School, Cambridge, Mass.

Golub, S and Céline Kauffmann and Philip Yeres (2011), "Defining and Measuring Green FDI: An Exploratory Review of Existing Work and Evidence", OECD Working Papers on International Investment, No. 2011/2, OECD Investment Division. Paris: OECD.

Grantham Institute (London School of Economics). (September 2009). Meeting Climate Challenge: Using Public Funds to Leverage Private Investment in Developing Countries.

Hamilton, K. (December 2009). Unlocking Finance for Clean Energy: The Need for 'Investment Grade' Policy. Chatham House.

Huberty, Mark Huan Gao, and Juliana Mandell with John Zysman (2011) Shaping the Green Growth Economy: A review of the public debate and the prospects for green growth, Green Growth Leaders Report, The Berkeley Roundtable on the International Economy.

IFPRI (2000) Women: The key to food security: Looking into the household

IIED (2012) Fair Ideas: Sharing solutions for a sustainable planet, June 2012. IIED/ Pontifícia Universidade Católica do Rio de Janeiro.

Lockwood, Matthew and Catherine Cameron (2012) Approaches to Low Carbon Energy and Development Bridging Concepts and Practice for Low Carbon Climate Resilient Development, Bridging Paper, IDS-DFID Learning Hub.

MacNeill, Jim, (2007) Our Common Future: Advance or Retreat? Sustainable Development: A New Urgency, EcoLomics International.

Manning, R. (2009), Using Indicators to Encourage Development: Lessons from the Millenium Development Goals, Copenhagen: Danish Institute For International Studies.

Mattison, Richard, Mark Trevitt, and Liesel van Ast, (2010) Universal ownership: why environmental externalities matter to institutional investors, UNEP/Trucost.

McKinsey (2009) Pathways to a Low Carbon Economy.

Melamed, C. (2012) After 2015: Contexts, politics and processes for a post-2015 global agreement on development. Overseas Development Institute

Melamed, Claire, Andrew Scott and Tom Mitchell (2012) Separated at birth, reunited in Rio? A roadmap to bring environment and development back together, Background Note, Overseas Development Institute.

Milanovic, Branko (2011) Inequality and its Discontents: Why So Many Feel Left Behind, Foreign Affairs, August 08 2011.

Milanovic, Branko (2011) More or Less, Finance & Development, September 2011, Vol. 48, No. 3, IMF.

National People's Congress (2011) China's 12th Five-Year Plan for National Economic and Social. Development (FYP)

Neuhoff, K., Fankhauser, S., Guerin, E,. Hourcade, J.C., Jackson, H., Rajan, R. & Ward, J. (September 2009). Structuring International Financial Support to Support Domestic Climate Change Mitigation in Developing Countries. Climate Strategies.

OECD (2010) Perspectives on Global Development 2010:

OECD (2010) Shifting Wealth, Paris: OECD.

OECD (2011) Towards Green Growth and UNEP (2011) Green Economy Report.

Overseas Development Institute (ODI).

Palma, José Gabriel Palma (2011) Homogeneous middles vs. heterogeneous tails, and the end of the 'Inverted-U': the share of the rich is what it's all about, Cambridge Working Papers in Economics (CWPE) 1111.

R. K. Pachauri (2012) Striking the balance: Climate change, equity and sustainable development in Development Cooperation

Rayworth, Kate (2012) A Safe and Just Space for Humanity: Can we live within the doughnut? Oxfam.

Republica de Colombia (2011) Rio+20: Sustainable Development Goals, A proposal from the governments of Colombia and Guatemala, http://www.uncsd2012.org/rio20/content/documents/colombiasdgs.pdf

Rochlin, Steve, Simon Zadek and Maya Forstater (2008) Governing Collaboration: Making Partnership Accountable for Delivering Development, AccountAbility, London.

Rockström, Johan et al (2009) A safe operating space for humanity, Nature 461, 472-475.

Roxburgh, Charles, Susan Lund, and John Piotrowski (2011) Mapping Global Capital Markets, London: McKinsey Global Institute.

Schalatek, L. & Bird, N. (November 2010). Climate Finance Fundamentals: A Normative Framework for Climate Finance. Brief 1. Overseas Development Institute (ODI).

Sierra, Katherine (2011) The Green Climate Fund: Options for Mobilizing the Private Sector

Stern, Nicholas (2009) Stern Review: The Economics of Climate Change, UK Government Treasury.

Streck, C (2011) The Concept of Additionality under the UNFCCC and the Kyoto Protocol:

UN Department of Public Information (2008) Aid – development pivot point, briefing note.

UN Department of Public Information (2008) op cit

UN High Level Advisory Group on Climate Finance (AGF). (2010). Work Stream 7 Paper: Public Interventions to

UNCSD (2012) The Future We Want, June 19 2012.

UNCTAD (2009) Forging new paths to sustainable South-South cooperation, interview with Richard Kozul-Wright, IPS News

UNDESA (2011) The World Economic and Social Survey 2011: The Great Green Technological Transformation.

UNDESA DSD, UNEP, UNCTAD (2012) Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective.

UNECA (2011) Governing development in Africa: The role of the State in economic transformation

UNEP (2011) Why a Green Growth Economy Matters for the Least Developed Countries. UNEP/UNCTAD//UN-OHRLLS)

UNFCCC (2007) Investment and Financial Flows To Address Climate Change

United Nations AGF. (November 2010). Report of the Secretary General's High Level Advisory Group on Climate Change Financing.

United Nations Environment Programme. (October 2009). Catalysing Low-Carbon Growth in Developing Countries

United Nations. (2008). Global Trends in Sustainable Energy Investment (Released Annually).

Vandemoortele, Jan (2012) Advancing the UN development agenda post-2015: some practical suggestions, Report submitted to the UN Task Force regarding the post-2015 framework for development.

Von Braun, Joachim and Ruth Meinzen-Dick (2009) "Land Grabbing" by Foreign Investors in Developing Countries: Risks and Opportunities, IFPRI Policy Brief No 13, (April).

WBCSD (2010) Vision 2050.

WCED Experts (1987) Our Common Future, Report of the World Commission on Environment and Development, Oxford: OUP.

WEF (2011) Scaling Up Low-Carbon Infrastructure Investments in Developing Countries - The Critical Mass Initiative, World Economic Forum.

Wen (2012) Speech in Stockholm +40 Partnerships for Sustainable Development Forum, http://unep-iesd.tongji.edu.cn/index.php?classid=169&newsid=1025&t=show

Winkler, Harald T. Jayaraman, Jiahua Pan, Adriano Santhiago de Oliveira, Yongsheng Zhang, Girish Sant, Jose Domingos Gonzalez Miguez, Thapelo Letete, Andrew Marquard and Stefan Raubenheimer (2011) Equitable access to sustainable development, Contribution to the body of scientific knowledge: A paper by experts from BASIC countries, BASIC expert group: Beijing, Brasilia, Cape Town and Mumbai.

Working Group II of the High Level Panel on Global Sustainability (2011) Input to the High-level Panel on Global Sustainability: Paradigms.

World Bank (2012) From Rio to Rio: A 20-year journey to green the world's economies

World Economic Forum (2010) Green Investing 2010: Policy Mechanisms to Bridge the Financing Gap.

World Economic Forum (2011) Green Investing 2011: Reducing the Cost of Financing.

Zadek, Simon (2007) Collaborative Governance: The New Multilateralism for the 21st Century, Published in Global Development 2.0, Brookings Institute, Washington DC

Zadek, Simon (2009) Institutional Arrangements for Advancing Low Carbon Growth and Development, Project Catalyst, London

Zadek, Simon (2010), From Climate Finance to Financing Green Growth, Project Catalyst, London.

Zadek, Simon, Edwin Ritchkin, Saliem Fakir, and Maya Forstater (2010) The South African Renewables Initiative: Advancing South Africa's Low Carbon Industrial and Economic Strategy, Department of Trade and Industry, Government of the Republic of South Africa, Pretoria.

Zadek, Simon, Maya Forstater, Edwin Ritchkin, Saliem Fakir, Jon Kornik and Joerg Haas (2010) Unlocking South Africa's Green Growth Potential: the South African Renewables Initiative, Department of Trade and Industry, Government of the Republic of South Africa, Pretoria.

Zadek, Simon, Sasha Radovich (2006) Governing Collaborative Governance: Enhancing Development Outcomes by Improving Partnership Governance and Accountability, Working Paper 23, Corporate Social Responsibility Initiative, Harvard Kennedy School, Cambridge, Mass.

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[1] UN High Level Panel on Global Sustainability (2012) Resilient People, Resilient Planet: A Future Worth Choosing.
[2] UNEP (2011) Green Economy Report.
[3] UNDESA DSD, UNEP, UNCTAD (2012) Transition to a Green Economy: Benefits, Challenges and Risks from a Sustainable Development Perspective.
[4] UNDESA (2011) The World Economic and Social Survey 2011: The Great Green Technological Transformation.
[5] UN High Level Panel on Global Sustainability (2012) Resilient People, Resilient Planet: A Future Worth Choosing.
[6] UNCSD (2012) The Future We Want, June 19 2012.
[7] IMF(2009) Global Financial Stability Report: Responding to the Financial Crisis and Measuring Systemic Risks, April 2009
[8] Palma, José Gabriel Palma **(2011)**Homogeneous middles vs. heterogeneous tails, and the end of the 'Inverted-U': the share of the rich is what it's all about, Cambridge Working Papers in Economics (CWPE) 1111
[9] Ferreira, Francisco H.G. and Martin Ravallion (2008) Global Poverty and Inequality: A Review of the Evidence, World Bank Working Paper.
[10] Milanovic, Branko (2011) Inequality and its Discontents: Why So Many Feel Left Behind, Foreign Affairs, August 08 2011.
[11] Milanovic, Branko (2011) More or Less, Finance & Development, September 2011, Vol. 48, No. 3, IMF.
[12] Rockström, Johan et al (2009) A safe operating space for humanity, N*ature* 461, 472-475.
[13] Mattison, Richard, Mark Trevitt, and Liesel van Ast, (2010) Universal ownership: why environmental externalities matter to institutional investors, UNEP/Trucost.
[14] Dobbs et al (2011) *op cit.*
[15] Rockström, Johan et al (2009) A safe operating space for humanity, N*ature* 461, 472-475.
[16] http://www.fao.org/nr/water/
[17] Jun, Ma (2012) After Rio: A new Consensus, June 25, China Dialogue.
[18] OECD (2010) Perspectives on Global Development 2010: Shifting Wealth, Paris: OECD.
[19] OECD (2010) Perspectives on Global Development 2010:
Shifting Wealth, Paris: OECD.
[20] Rosen, Daniel and Thilo Hanemann (2011) An American Open Door: Maximizing the Benefits of Chinese Foreign Direct Investment, Special report, New York: The Asia Society.
[21] Castelli, Massimiliano and Fabio Scacciavilliani (2012) The New Economics of Sovreign Wealth Funds, John Wiley and Sons.
[22] ECOSOC (2009) Support to UN Development Cooperation Forum 2010: South-South and Triangular Cooperation: Improving Information and Data.
[23] Dobbs, Richard Susan Lund, Charles Roxburgh, James Manyika, Alex Kim, Andreas Schreiner, Riccardo Boin, Rohit Chopra, Sebastian Jauch, Hyun Kim, Megan McDonald, and John Piotrowski (2010) Farewell to cheap capital? The implications of long-term shifts in global investment and saving, London: McKinsey Global Institute.
[24] UNEP (2011) Green Economy Report.
[25] UNDESA DSD, UNEP, UNCTAD (2012) op cit.
[26] UNFCCC (2007) Investment and Financial Flows To Address Climate Change
[27] UNDESA (2011) The World Economic and Social Survey 2011: The Great Green Technological Transformation.
[28] Doornbosch, Richard , Dolf Gielen and Paul Koutstaal (2008) Mobilising Investments in Low-Emission Energy Technologies on the Scale Needed to Reduce the Risks of Climate Change, Paper for the OECD Round Table on Sustainable Development.
[29] OECD (2011) Towards Green Growth and UNEP (2011) Green Economy Report.
[30] Winkler, Harald T. Jayaraman, Jiahua Pan, Adriano Santhiago de Oliveira, Yongsheng Zhang, Girish Sant, Jose Domingos Gonzalez Miguez, Thapelo Letete, Andrew Marquard and Stefan Raubenheimer (2011) Equitable access to sustainable development, Contribution to the body of scientific knowledge: A paper by experts from BASIC countries, BASIC expert group: Beijing, Brasilia, Cape Town and Mumbai.
[31] Working Group II of the High Level Panel on Global Sustainability (2011) Input to the High-level Panel on Global Sustainability: Paradigms.
[32] Zadek, Simon (2010), From Climate Finance to Financing Green Growth, Project Catalyst, London.
[33] UN High Level Panel on Global Sustainability (2012) Resilient People, Resilient Planet: A Future Worth Choosing.
[34] UNCSD (2012) op cit

[35] Avoided Deforestation Partners (2012) S Announces Partnership with CEOs of Major Companies to Reduce Deforestation Through Sustainable Agriculture, Press Release.
[36] Shankleman, Jessica (2012) Rio +20: Public transport gets £111bn bank boost, Business Green, 21 Jun 2012.
[37] The Secretary-General's High-level Group on Sustainable Energy for All (2012) Sustainable Energy For All: A Framework for Action, UN.
[38] World Bank (2012) *op cit.*
[39] Winkler, Harald T. Jayaraman, Jiahua Pan, Adriano Santhiago de Oliveira, Yongsheng Zhang, Girish Sant, Jose Domingos Gonzalez Miguez, Thapelo Letete, Andrew Marquard and Stefan Raubenheimer (2011) Equitable access to sustainable development, Contribution to the body of scientific knowledge: A paper by experts from BASIC countries, BASIC expert group: Beijing, Brasilia, Cape Town and Mumbai.
[40] Lockwood, Matthew and Catherine Cameron (2012) Approaches to Low Carbon Energy and Development Bridging Concepts and Practice for Low Carbon Climate Resilient Development, Bridging Paper, IDS-DFID Learning Hub.
[41] World Bank (2012) *Inclusive Green Growth: The Pathway to Sustainable Development*, World Bank, Washington DC.
[42] World Bank (2012) op cit.

[44] Schmidheinney, Stephan (ed.) (1992) , Changing Course: A global business perspective on development and the environment, Geneva: WBCSD.
[45] Zadek, Simon (2007) Collaborative Governance: The New Multilateralism for the 21st Century, Published in Global Development 2.0, Brookings Institute, Washington DC.
[46] WBCSD (2009) Business & Development: Challenges and opportunities in a rapidly changing world, Geneva: WBCSD.
[47] Sammans, Richard (2011) The Role of Public-Private Cooperation in Enabling Green Growth, Seoul: GGGi.
[48] UNCSC (2012) *op cit.*
[49] Roxburgh, Charles, Susan Lund, and John Piotrowski (2011) Mapping Global Capital Markets, London: McKinsey Global Institute.
[50] UN Department of Public Information (2008) Aid – development pivot point, briefing note.
[51] ECOSOC (2009) Support to UN Development Cooperation Forum 2010: South-South and Triangular Cooperation: Improving Information and Data.
[52] UN Department of Public Information (2008) *op cit*
[53] Coffee Morlot, Jan (2009) Understanding Mitigation Support Financing, OECD Presentation.
[54] National People's Congress (2011) *China's 12th Five-Year Plan* for National Economic and Social. Development (FYP)
[55] ESCAP (2012) Low Carbon Green Growth Roadmap for Asia and the Pacific: Turning resource constraints and the climate crisis into economic growth opportunities
[56] Zadek, Simon, Sasha Radovich (2006) Governing Collaborative Governance: Enhancing Development Outcomes by Improving Partnership Governance and Accountability, Working Paper 23, Corporate Social Responsibility Initiative, Harvard Kennedy School.
[57] Brown, J., Buchner, B., Wagner, G. & Sierra, K. (2011), Improving the Effectiveness of Climate Finance: a survey of leveraging methodologies, Venice: Climate Policy Initiative.
[58] CMCI (2012) Principles for Investment grade policy and projects Report produced for the Capital Markets Climate Initiative (CMCI) Working Draft, March 2012.
[59] GGGi(2011) Global Green Growth Institute Brochure, Seoul: GGGi.
[60] Clean Energy Ministerial (2012) Factsheet.
[61] FAO (n.d.)Women, Agriculture and Food Security, factsheet.
[62] IFPRI (2000) Women: The key to food security: Looking into the household.
[63] Forstater, M (2012) Towards Climate Finance Transparency, Publish What You Fund.
[64] Raworth, Kate (2012) A Safe and Just Space for Humanity: Can we live within the doughnut?, Oxfam.
[65] Fourth High Level Forum On Aid Effectiveness (2011) Busan Partnership For Effective Development Co-Operation, Busan, Republic Of Korea.
[66] 3GF (2012) Analytical Framework: Accelerating Green Growth through Public Private Partnership, Global Green Growth Forum