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A GLOBAL PUBLIC GOODS PERSPECTIVE ON ENVIRONMENT AND POVERTY

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Redefining international cooperation

In international cooperation it seemed for a while that a perspective of public goods and costs became dominant. Partly, this was due to redefining international cooperation in changing circumstances: a world in which North and South and East and West are no longer the clear categories they were during the Cold War. Partly, it was due to the prevailing dominance of an economic vision of the world, rather than a sociocultural, religious or ethnic one. We live in a world in which many problems and challenges demonstrate the limits of a neoclassical economic world-view, and this is increasingly recognized. A new perspective on international cooperation is of prime importance; given the limits of natural resources on our planet, it increasingly needs to be a sustainable development perspective.

This has not always been the case. The first major effort in international cooperation, development aid, started after the Second World War, even before many countries achieved independence. Aid was couched in terms of historical obligation, mutual benefits and ethical norms and standards. The rich, developed countries felt castigated for their history of colonialism, imperialism and unbridled capitalism and were urged to help and support the newly independent developing countries to develop their economies, improve their institutions, ensure health and prosperity for their citizens and to fight absolute and relative poverty.

However much feelings of guilt and responsibility legitimized international support, the early conceptualization of aid was economic and politic in nature. Two competing paradigms influenced early international cooperation: one of economic development and mutual benefit, the other of self-reliance and socialist or social-democratic economic and social arrangements. The economist paradigm was prevalent in the West and the socialist paradigm in the East. The South, the developing world, was the arena in which the fight between the two paradigms would turn

warm or hot from time to time. The link between the development of poor nations and the Cold War between capitalism and communism was evident at the time, as reflected, for example, in one of the famous tracts on economic development: W.W. Rostow's (1960) *The Stages of Economic Growth: A Non-Communist Manifesto*.

For the developed world to spend funds on international cooperation was thus an ethical obligation, an economic investment and a geopolitical move. Policy papers often mentioned both economic and national interests – public goods did not play a substantive role. One could argue that the concept of public goods was developed in parallel with development cooperation: the economist Paul Samuelson (1954) is often credited with the first discussion of public goods. As is typical of new concepts, they were at first more or less ignored in mainstream discussions. When Rostow presented his vision of economic development in 1960, public goods did not come into the argument. He presented economic development as a series of technical steps that countries had to go through in order to achieve the economic heaven of a “mature” economy which would offer “mass-consumption” to its citizens. Aid could help remove obstacles on the way to this state of bliss.

However, economic and geopolitical motives were gradually accompanied by new motives and new modalities. Humanitarian crises (e.g. the Bihar famine of 1966 in India) led to proposals for humanitarian aid to help and support countries that went through natural or man-made disasters and whose populations needed food, shelter and emergency care. The 1983–1985 famine in Ethiopia led to increased international recognition for the need to provide aid and assistance. Humanitarian aid is mostly funded on ethical arguments and appeals to humanity's better nature to help and care for those in need. Other arguments have also supported humanitarian aid (e.g. security considerations, where a natural or man-made disaster may destabilize a region or a country). Economic reasons have also been put forward: focusing on the need to quickly rebuild an economy to ensure that more permanent solutions can be found for resolving humanitarian crises. Nonetheless, ethical and normative arguments tend to form the core of the justification of humanitarian aid.

The United Nations (UN) has been involved in a third line of international cooperation, one that predates its birth. In fact, the specialized agencies that predate the UN have been instrumental in their respective fields to formulate and reach agreement on international norms and standards, such as on meteorology, postal arrangements, food and many other issues. This *normative* work of the UN became more dominant over time. The UN remains the first and foremost institution in the world in which the global community can reach agreement on issues of common interest. Arguments for normative work have often been couched in terms of the necessity to reach agreement on how states should interact and how international conventions should be implemented.

Thus, the UN's three major domains of work (normative, humanitarian and development) are often addressed in terms of ethical behaviour and mutually beneficial agreements on common standards and approaches. However, when the Cold War ended, the inextricably intertwined geopolitical and economic self-interest arguments that supported the funding of international cooperation fell

largely away. The concept of public goods, as introduced by Samuelson (1954), could provide a new rationale for international cooperation. Dr. Inge Kaul, then Director of Development Studies for the United Nations Development Programme (UNDP), made a significant contribution in this direction, formulating the need for action from a global public goods perspective.

In the decade up to 2015, global public goods increasingly became central to discussions on the role of public finance for global problems. Several bilateral donors were redefining their aid programmes from a public goods perspective. In international efforts to address environmental problems, the public goods nature of these efforts has always been taken more or less as granted. What was new is that the UN and other international actors were increasingly framing their activities in terms of public goods. The challenge is to see whether a common framework for analysis, action and evaluation can be derived to address environmental issues on the one hand and development and poverty reduction on the other.

With the adoption of the Sustainable Development Goals (SDGs) in Agenda 2030 and the Paris Agreement on Climate Change¹ in 2015, an integrated, holistic agenda was presented with the aim of “transforming our world.” The UN resolution which proclaims this lofty goal mentions public goods in one paragraph, number 41, as an important objective of public financing, without any further definition or explanation.² The Sustainable Development Report 2019, published by an independent group of experts and providing detailed information and data on progress towards the SDGs, does not contain the term “public good” anywhere in the document and it may seem the concept has left the arena of international development and has been retired to a bygone age (Sachs et al. 2019).

Yet at the same time we see an emerging paradigm fight in economics where public goods and related concepts (such as public value) are becoming increasingly important. Kate Raworth’s efforts to integrate sustainability perspectives in economic theory are peppered with public good aims throughout the new paradigm she proposes (Raworth 2017). The value of public sector investments and efforts is central to the work of Mariana Mazzucato, who focuses on the role of the public sector in innovation (Mazzucato 2019 – see especially chapter 8 “Undervaluing the public sector”). Both institutional economics and evolutionary economics tend to include public good perspectives, so even while the term has receded into the background in recent years, it is good to define what we mean by public goods and what role they play in tackling and solving the global crises we face. The larger challenge we face is to integrate a public good perspective into sustainable development approaches that will ensure that environmental services for future generations (e.g. clean air, water and healthy food) simultaneously alleviate poverty, in line with the SDGs and the Paris climate agreement of 2015.

Defining public goods

At first sight, it may seem that there is a strong connection between the relatively new arguments regarding public goods and public value and the normative functions

of the UN. One could argue that it is a public good to have internationally accepted norms and standards on many issues, because without them communication, trade, travel and many other interactions between nations and peoples would become difficult and likely much more dangerous. However, to say that global public goods are identified by the norms and standards of the UN does not solve the problem. How are these norms and standards identified? When are these norms and standards really needed, and when should the global community leave things to markets or to bi- and multilateral actions among states? When can the global community hold differing opinions and when should it agree? Thus, defining public goods through global norms and standards leads to a discussion of the public goods status of norms and standards – which returns to the question of what public goods are.

In general, public goods tend to be defined by what they are *not*: anything that markets fail to effectively and efficiently produce. Leaving public goods to markets thus leads to market failure and to negative externalities – in other words – to *public bads* (Feinstein 2019: 21). In economics, this “negative” definition is most clear; most often public goods are defined by what they are not, as *non-rival* and *non-excludable*. Non-rival means that whatever you take of a resource does not significantly reduce others’ ability to take the resource (e.g. the quantity of air that you breathe does not significantly diminish the quantity of air that can be breathed by others). Non-excludable means that access to the product cannot be limited to a group of people (e.g. paying customers). Air again serves as an example: one cannot sell air to a customer if air is otherwise freely available. The example of air can be expanded to illustrate the ongoing debate about public goods and the role of governments and markets. With the advent of air-conditioners, cool air has become something that can be sold, for example, to companies that want to ensure that their employees are working in productive conditions or to citizens who prefer to sleep in a cool bedroom during the summer. What once was completely non-rival and non-excludable becomes marketable if the quality of it can be influenced in a closed space. In open space, it affects markets in a reverse way: housing in areas of high pollution is generally cheaper than housing in areas with clean air.

For positive definitions of what constitute public goods, one would need to examine other sciences and political debates: there, public goods may be identified as issues that should be dealt with by the government, by the public or through shared cultural and societal norms. Certainly the latter seems directly connected to the UN’s normative work. A positive identification of public goods could define them as at least anything that the UN provides norms and standards on, but we have noted that this may turn into a tautology, as these norms and standards may have been identified from a public goods perspective in the first place. Furthermore, such a definition would clash with the economist’s perspective on public goods, as economists could argue that some of the normative work of the UN could be better left to markets and market forces – and poverty alleviation could be one of them.

Addressing poverty is perceived in the UN as both a normative and a development issue. UNDP, which is arguably the anti-poverty programme of the UN, is

seen as a development agency rather than a normative one. Development issues tend to be argued in economic terms, even if social and normative issues play an important role. Thus, the starting point for action on public goods issues tends to be to focus on market failure.

Public action on public goods

Market failures often manifest themselves through externalities – external costs (or public bads) that are created by the market and that are additional and external to the product that was produced for and bought on the market. Meeting these costs, or preventing them, is a public good, because they will not be met privately (i.e. through the market). In general, governments have three ways to address market failures and ensure public goods. They can use their judicial powers to criminalize behaviours that lead to external costs (e.g. environmental pollution); they can use their regulatory powers to change behaviours to such an extent that external costs no longer appear (e.g. promote sorted collection of household waste); and they can use their taxation powers to recover costs and shift externalities back into the market (e.g. taxing pollution or greenhouse gas emissions). Some argue that public goods and bads are the foundation of taxation and public spending. It could also be argued that perceiving both poverty and environmental degradation as market failures provides an economic justification to address both through normative measures and through public spending.

Just as Rostow (1960), through his theory of the stages of economic growth, provided a technical perspective on how to develop countries and end poverty, another influential publication threw light on the role of governments and the public sector: John Kenneth Galbraith's 1973 publication of *Economics and the Public Purpose* led to a discussion in economics and politics on whether markets should be curtailed in order to serve the public purpose or whether markets should be improved to solve problems in society. Over time, the neoclassical perspective gained ascendancy, which led to the perception of market regulation and taxation as distortions that prevent markets from becoming fully efficient.

The 2008 financial crisis demonstrated to many that governments need to regulate markets. However, many Republicans in the United States continue to claim that it was actually government interference with the markets that caused the subprime lending crisis, signalling that the debate is far from over.

One lesson to be learned from a historical perspective on public goods is that though the concept may be timeless, the actual application is not. There is a dynamic in what constitutes a public good or cost. For example, before streetlights were introduced, the public good of a well-lighted street at night did not exist. When streetlights became more ubiquitous, their costs became evident on municipalities and transport authorities' budgets. Public costs regarding the environment started to soar to previously unseen heights when population pressure and use of natural resources reached levels that brought the limits of environmental services in sight.

Ending poverty: a global public good?

Whether public funding should be made available to alleviate poverty is an issue that has been vociferously debated. Neoclassical economists tend to take the position that government should create an environment in which the poor can fend for themselves. Support to the poor has failed – and will always fail – they claim. This was most aptly phrased by Ronald Reagan in his 1988 state of the union address: “the Federal Government declared war on poverty, and poverty won.”³ In this perspective, direct aid will actually make it more difficult for the poor to escape poverty. Many (if not most) other political perspectives on the government’s role disagree with this perspective and perceive poverty as an issue where government should play an important role, both to help people out of poverty and to prevent people from spiralling down into poverty. However, if on a national-level poverty is not unanimously seen as a public issue, what can the public goods perspective contribute to the idea of helping other countries to alleviate poverty? Would the concept of global public goods be helpful to support aid for poverty reduction?

The international discussion of global public goods was actively promoted and supported by UNDP through the groundbreaking work of Dr. Inge Kaul. Together with colleagues and researchers, she was the first to propose a definition of global public goods as goods whose benefits extend to all countries, people and generations (Kaul, Grunberg and Stern 1999). Together with Ronald Mendoza she developed a perspective on how global (as opposed to local or regional) goods should be supported through public funding: “local public goods should be provided locally, national public goods at the level of the central government, and global public goods at the international level” (Kaul and Mendoza 1999: 91). This division of labour seems reasonable, but it also seems to marginalize poverty as a global issue. Poverty itself is, after all, localized and thus seems to be largely the domain of national governments.

Although Inge Kaul does not mention poverty as the most obvious global public good, she does include the eradication of poverty from a human rights perspective, and thus identifies poverty as a global bad that the global community needs to address. Also, indirect linkages to global issues could be explored: migration caused by poverty can create havoc in other countries. Political movements aimed at reducing poverty may become revolutionary or may lead to violent action and destabilize countries and regions. States may descend into chaos and may lead to considerable economic loss (e.g. pirates from Somalia were a regional problem for international shipping, with a global impact, from circa 2000 to 2015). To prevent this from happening, a public goods perspective may justify regional and even global action.

The gist of this is that no universal agreement exists as to whether poverty is a public issue and whether poverty alleviation should be funded from public means. An underlying reason for the lack of agreement is whether poverty is globally significant. Some perceive poverty as a local problem for which local (market-oriented) solutions may be found. However, poverty can be perceived of as globally

significant, and thus the eradication of poverty can be seen as a global public good. This could be argued from human rights, normative and ethical perspectives. It could also be argued from an economic perspective, as Paul Collier (2007, 2010) has done in both *The Bottom Billion* and in *Plundered Planet*. Collier approaches both poverty and the environment from a utilitarian perspective and sees it as the imperative of an economist to strive for the greatest good for the greatest number of people. Furthermore, he approaches poverty and the environment from a market failure perspective, which requires government intervention, including international intervention to support countries to break out of what he has termed “traps.”

For the environment, Collier focuses on the tragedy of the commons. Collier and Kaul recognize global environmental public goods as expressing the tragedy of the global commons. However, the environmental community uses a slightly different definition of global public goods. A global environmental benefit, as defined by Global Environment Facility (GEF), is a good that has *global significance*. In other words, it can be very local in nature, but if it has global significance it can be termed a global good. There are good reasons for this perspective. Many unique species have global significance: if they are lost, they are not just lost to the area where they live, but they are also lost to the world.

Furthermore, the multilateral environmental agreements for which the GEF is a financial mechanism have identified the division of labour regarding funding of global goods that are localized in countries. In principle, countries should fund local issues, even if they have global significance, but only up to the level that they can afford given their level of development. They should be supported by the international community for additional efforts that are needed to safeguard the global good. Furthermore, given the developed world’s historic responsibility for creating environmental problems (demonstrated most clearly through the history of greenhouse gas emissions, which for a long time were dominated by industrialized countries), developed countries should make available the requisite additional and incremental funding needed to safeguard global goods.

Ensuring environmental services: a global public good

The environment provides a range of services: clean air and water, soil for crops to grow on and weather that supports the agriculture and stability in housing and infrastructure. These environmental services have been conceptualized in the so-called ecosystem approach and have been formulated most consistently in the Millennium Ecosystem Assessment (2005). In mainstream economic theory, these environmental services are recognized as externalities (costs and benefits that are public rather than private in nature).⁴ Of these externalities, the benefits usually do not pose a problem – the costs are of increasing concern, as climate change discussions are demonstrating.

Many economists tend to speak of external costs in terms of market failures, and Nicholas Stern, a former Chief Economist of the World Bank, has done so most dramatically. In the *Stern Review on the Economics of Climate Change*, a report to the

UK government on the costs of climate change, both on mitigating it and adapting to its consequences, he noted that climate change is a result of “the greatest market failure the world has seen.” His conclusion was that “those who damage others by emitting greenhouse gases generally do not pay.”⁵ There is controversy over whether Stern and his team correctly calculated the damages and the costs of preventing them, but the point he raised concerning market failure was not disputed.⁶

The global public good nature of environmental issues is perhaps most persuasively illustrated through the ozone layer. This stratospheric layer in the atmosphere absorbs approximately 97–99% of the sun’s ultraviolet light, which would otherwise cause severe genetic damage. It thus provides a service to all life on earth: protection against a possible annihilating force. In 1985, it was discovered that the ozone layer showed a decrease in density of 4% per decade and was exhibiting growing holes in the polar regions. Further analysis uncovered that chlorofluorocarbons were the main cause for the reduction of ozone. These chemicals were introduced in the 1920s and 1930s and had been mainly used in air conditioning and refrigerators. Along with other chemicals that were later identified, they became known as ozone-depleting substances.

Research established that these substances – and these substances only – were responsible for the gradual destruction of the ozone layer. When they were introduced to industrial production, their destructive consequences were unknown. Given the ozone layer’s crucial role in protecting life on earth from harmful rays, international action started immediately: in the year of discovery the Vienna Convention for the Protection of the Ozone Layer was designed. It entered into force in 1988, when a sufficient number of countries ratified the convention. It has been ratified by 196 states. Action against the production and consumption of ozone-depleting substances was initiated through the Montreal Protocol, which was opened for signature in 1987 and was ratified by a sufficient number of countries in 1989 to become active. To date it has been signed by 197 countries and is often considered the most effective international agreement. Research and evaluations have shown the Montreal Protocol on track to rescue the ozone layer, which should be restored to its former full strength by 2050.

It was clear that in this case only one option was open to the international community: forbid the production and use of ozone-depleting substances. The ozone layer cannot be privatized and regulated to ensure that market forces would keep it healthy. It benefits all life on earth equally. Environmental problems can be seen on two dimensions: one dimension ranges from uncontested public goods to private and marketable ones (i.e. from the ozone layer through climate change to biodiversity loss, pollution issues, marketable commodities such as organic food and areas of outstanding natural beauty), and a second dimension from global to local (e.g. from the ozone layer through climate change to biodiversity loss, to pollution, land degradation and local instances of environmental degradation). How these environmental problems are linked to development and poverty is thus also reflected in a wide range of different relationships.

Linkages between poverty and the environment

In general, the linkages between poverty and the environment can be seen as a specific case of the general linkages between development and the environment. The concept of sustainable development aims to integrate environmental issues into development notions. As defined by the Brundtland Commission in 1987, sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” The report of the Commission, *Our Common Future* (UN World Commission on Environment and Development 1987), emphasized the needs of the poor and proposed that poverty alleviation (as well as gender equity and wealth distribution) is a crucial strategy for environmental conservation. Recognition of the links among environment, development and poverty can be found in Agenda 21 of the 1992 United Nations Conference on Environment and Development, as well as in the texts of the conventions on climate change and biodiversity that were initiated at the Conference.

However, merely recognizing that linkages exist does not identify easy ways forward. The Brundtland Commission focused on population, food security, loss of biodiversity, energy, industry and human settlements and concluded that all of these were connected and “cannot be treated in isolation one from another” (UN World Commission on Environment and Development 1987: 27). However, action in the real world is by necessity often unconnected, as well-focused interventions tend to be much more effective than comprehensive, holistic programmes. It is thus no surprise that since 1992 (when actions to prevent climate change and loss of biodiversity began to take shape), many evaluations have highlighted the successes of isolated rather than holistic actions. For example, after a decade of activities to promote protected areas in order to provide wild species a refuge of at least 10% of the earth’s surface (as agreed on in the Convention on Biological Diversity), critics increasingly voiced concerns that environmentalists aimed to achieve this by focusing on conservation only; banning humanity, and especially poor local communities and indigenous people, from protected areas. The goal of reaching 10% of the earth’s surface as protected areas has been achieved; however, many protected areas in the world have not yet solved the puzzle of how local people can help maintain the area and benefit through higher incomes and better livelihood opportunities. Yet a strong involvement of local communities and indigenous people is now conceptually integrated into more recent perspectives on how protected areas should be managed.

In development policies and interventions, the linkages among the social, economic and environmental domains were mainly recognized through lip service. For example, although most countries and donors started policies and programmes on renewable energy (e.g. by promoting solar, wind and other forms of clean energy), their other policies and programmes often did not take into account how “regular” development investments would undermine gains made in the environmentally oriented programmes. In international discussions, recipient countries often voiced concerns that developed countries had depleted their own natural resources in order to achieve development and poverty reduction, and that developing countries

had no choice but to go the same route – unless they could receive access to the latest technology, free of charge, or, as was stated at the 1992 Earth Summit, on “concessional terms.”

One can conclude that though the linkages between the environment and poverty have been long recognized, the international community has been unable to sufficiently mainstream environmental issues into development and poverty alleviation policies and programmes. International organizations’ evaluation units have published briefing documents that confirm this conclusion from many independent evaluations of these organizations. The first briefing document focuses on mainstreaming efforts to stop biodiversity loss (ECG 2010). It provides evaluative evidence that although efforts and interventions to sustain biodiversity are working and have had impacts, they do not yet reach the scale that would change overall trends. It states that development banks and United Nations institutions have not sufficiently integrated biodiversity issues into their development and poverty reduction strategies. The second briefing note (ECG 2011) pointed to a lack of integrating a climate change perspective into the support that development banks had given to the traditional energy sector in developing countries.

The concept of sustainable development with three foundational pillars – societal, economic and environmental – has received much recognition in speeches and statements, but not in implementation. UNDP, the main UN programme active on poverty reduction, and the GEF, the main global fund active on environmental protection, provide interesting examples in this regard. Both recognize the linkages between poverty and the environment in principle. However, both encountered difficulties to translate words into action. UNDP’s evaluation of the poverty–environment nexus concluded that there is “substantial recognition” in UNDP of the linkages, but that “cooperation across sectors” has not materialized (UNDP 2010). Similarly, the GEF has focused on the achievements of global environmental benefits without paying too much attention to development or poverty at first. The evaluation of the role of local benefits in achieving global environmental benefits noted that GEF-funded projects tended to focus on the global benefits in the expectation that other funders (e.g. governments, other donors) would take care of the local benefits. Lack of coordination and integration then led to interventions that were less effective on both local and global benefits (GEF EO 2006: 7). Both evaluations led the way in putting the linkage between development, poverty reduction and the environment back on the organizations’ agendas. What general lessons can be learned from these evaluations on linkages between environment and poverty? An important issue to explore is the geographical scope of the public nature of alleviating poverty and ensuring environmental services, from local to national, to regional and global.

Local, national, regional and global public goods

Much of the discourse on public goods, the role of governments and the efficiency of markets considers what should happen within one country.⁷ However, many

market externalities are of a transboundary nature. For example, greenhouse gases transcend political boundaries and will influence the global climate, not a local microclimate. Similarly, benefits from local reductions in greenhouse gas emissions will accrue globally. The globalization of the world, and especially its economy, is of course a thoroughly discussed phenomenon and opinions differ wildly on whether or not it is beneficial. However, the transboundary costs of markets are a fact, and many local actions have global consequences, just as global action has local consequences. The linkage between environment and poverty in terms of public goods can be seen to range from global environmental issues to local poverty issues: global issues such as climate change can have its worst impact on the poor, who barely have the resources to adapt to changed circumstances, whereas local actions that deplete scarce resources may have global implications. A wide range of possible linkages between nations, regions, local and national issues can also be discerned.

The lack of mainstreaming noted in the previous section has also affected how geographical scale was addressed. This has been uncovered most clearly in GEF policies and interventions. Recognizing that developing nations did not have the financial resources to adopt alternative or modern technologies, the Earth Summit mandated that GEF provide funding for “agreed incremental costs” – the additional costs associated with transforming a project with local or national benefits into a project with global environmental benefits. The oft-used example is an investment in a power plant. A country considers whether to invest US\$750 million in a new coal power plant or \$800 million in a geothermal plant. The \$50 million difference is the incremental costs that the country would incur to change its plans and adopt the more expensive alternative. This alternative, which would emit considerably lower greenhouse gases, would have huge global environmental benefits in terms of climate change mitigation and substantial local and regional benefits in terms of lower pollution, transportation and infrastructure costs (and as noted earlier, these apparently localized benefits can also extend to the global scale in terms of regional stability and prosperity).

Furthermore, the United Nations Framework Convention on Climate Change also recognizes the differentiated responsibilities of groups of countries. This refers to developed countries’ history of greenhouse gas emissions. This historic responsibility for starting the build-up of CO₂ in the atmosphere also calls for support from developed to developing countries in order to enable them to adopt more environmentally friendly technologies.

This focus on incremental cost funding led to GEF treating local and global benefits separately. Because incremental costs are related to global benefits, local benefits tended to be left to others. Depending on the project, these others could be local governments, executing agencies or consultancy firms. GEF wanted to be sure that the global benefits were generated, and even in projects where local benefits were recognized as an essential means to achieve global benefits, the focus in management and reporting tended to be on the global issues, as noted in the major evaluation undertaken by the GEF Evaluation Office: *The Role of Local Benefits in Global Environmental Programs* (GEF EO 2006). The evaluation started from the

perspective that local benefits included “outcomes that, directly or indirectly, have positive impacts upon people and ecosystems within or adjacent to project areas and that provide gains, present and future, in the livelihoods of communities and to the integrity of ecosystems.” It noted that GEF partners recognized the importance of these benefits in principle, but tended to leave them to co-funders and national and local authorities and organizations so that the GEF partners could concentrate on achieving the global benefits. One can see the repeat in a different form (noted in the evaluation’s section on mainstreaming) of the lack of a holistic approach and the focus on a more pragmatic ambition to get something done which would more directly achieve global benefits. As a consequence, trade-offs between local and global benefits were often not incorporated into project design and management, which led to lower achievements on both local and global benefits.

From trade-offs to win-win options

The *Role of Local Benefits* noted that many GEF projects were approached from a firm belief in win-win options and that often trade-offs between poverty/local development and the environment had to be negotiated – but projects did not accommodate these trade-offs, because they were supposed to support win-win solutions. The study found that there are winners and losers in almost all interventions and that solutions promoting sustainable environmental trends had to be negotiated in the majority of cases. This would involve compromises – in which some lower *local* benefits would achieve some higher *global* benefits (or alternatively, some lower *global* benefits would ensure higher *local* benefits) – that would sustain these benefits. Interventions that aimed for higher global benefits at the detriment of lower local benefits tended to be unsustainable over the long term. In contrast, interventions that accepted lower global benefits but achieved higher local benefits tended to ensure their sustainability.

This can perhaps best be illustrated with findings from the support of the GEF for protected areas (see GEF EO 2006: 61–63). The majority of protected areas are located in rural and isolated areas with low levels of development and high marginalization and often have a higher incidence of indigenous peoples. The resources from protected areas often provide a safety net for the poor, and the poor (and more specifically the indigenous communities) often have the knowledge about natural resource access and use in the protected area concerned. This understanding of the linkage between poverty issues and conservation is pertinent to the design and implementation of support for protected areas. Socio-economic studies have repeatedly demonstrated that the poor bear most of the direct local costs of access restrictions stemming from newly created protected areas (or areas where protections were increased). However, *The Role of Local Benefits* (GEF EO 2006) found that in 27 GEF projects supporting protected areas, the poor and poverty issues were not addressed consistently and were not effectively incorporated.

One strategy to ensure higher incomes for local communities was to focus on opportunities for ecotourism. Theoretically, this would create tourism income and provide local communities with a strong incentive to maintain an ecosystem that

would attract ecotourists – if there is no biodiversity hot spot to observe, ecotourism will fail. However, *The Role of Local Benefits* (GEF EO 2006) found that ecotourism tended to fail in countries that lacked a generalized tourism infrastructure, where entering the country was bureaucratic and costly, and where hotels, roads and transportation did not encourage tourists to visit the country. In these countries, ecotourism also raised insufficient interest from the potential clientele in developed and neighbouring countries. But even in countries where ecotourism was successful, it often did not lead to increased income for local or indigenous communities, as it turned out to be difficult to involve them in income-generating tourist activities. One often noted problem was the lack of language capacities, which entailed a reliance on interpreters to ensure communication between local guides and tourists.

Most importantly, when the anticipated win–win solution of higher income and better management of the protected area did not materialize, many projects did not include mechanisms to negotiate a trade-off (e.g. such trade-offs could have included direct compensation to local communities for reduced natural resource use). As a result, short-term achievements in global environmental benefits were undermined in the long term because impoverished communities returned to increased natural resource use to survive.

However, the negative spiral of increased natural resource use observed in many poor and overpopulated areas can increase the possibility for win–win solutions. Increasingly, communities are reaching the limits of their local natural resources. In Samoa, for example, fishing was becoming less rewarding because destructive fishing techniques (which also destroyed the habitat in which fish stock could restore) have resulted in fewer adult fish and fewer varieties as well. Through the GEF Small Grants Programme, local communities were supported in preserving the coral reefs. A community would adopt a specific area of the reef as a marine protected area. This area would then regenerate and start producing ample fish again, leading to fish migrating to neighbouring areas that were open for fishing. The catches sold well at the local market, leading to interest from other communities – and in time adoption of similar restrictions. In a relatively short time, sustainability, catches and income increased. When the GEF Evaluation Office evaluated the GEF support in Samoa in 2007, 50 communities had adopted these new practices (GEF EO 2008a: 5). This kind of win–win intervention is increasingly becoming possible as local environments become further degraded and stop providing essential eco-services to local communities. Where such eco-services are of global significance, there is a strong positive linkage between local and global benefits and between global and local public goods. This interconnectedness has been incorporated in the Sustainable Development Goals and should thus be taken up in evaluations that are done from the perspective of the SDGs.

Conclusions for evaluators

How can evaluators help identify the linkages between poverty and the environment in a way that will bring forward pragmatic solutions to local and global problems? Evaluators can conclude that the fragmented, often isolated and pragmatically

focused nature of international organizations’ and national governments’ strategies, policies and interventions calls for a broader contextualization, which has been reinforced through the call for such a broader contextualization in the SDGs. Environmental evaluations need to take social and economic contexts into account in order to ensure that they achieve better understanding of the sustainability of environmental gains. Evaluations of social and economic programmes need to better include the environmental context and identify how eco-services are supporting (or undermining) achievements in social and economic development. This is particularly important for the situation of the poor, of gender issues and of the position and role of indigenous people.

Further, within these contexts environmental evaluators need to pay attention to local and national public goods that would support rather than deplete environmental goods. Social and economic evaluators need to identify environmental issues of global significance. This may involve a geographic scope (from local to national to regional to global), and/or a time scope (from an immediate significance to a time horizon of decades).

These call for further strengthening two directions in evaluation. First, evaluations need to look beyond the narrow context of the intervention, programme or policy being evaluated. Second, both the time horizon and the geographical scope of evaluations need to be enlarged. No new evaluation criteria are needed – what is called for is a shift in how some of these criteria are placed in a logframe, theory of change or logic of interventions perspective. Evaluation criteria such as relevance, efficiency and effectiveness describe relationships: relationships between inputs and outputs (efficiency), between outputs and outcomes (effectiveness) and between outcomes and longer term impact (relevance; see Figure 2.1). Elsewhere I have argued for a shift of some of these criteria to later stages in the theory of change (van den Berg 2011), and I present an overview of the positioning of these criteria

FIGURE 2.1 Evaluation Criteria

as they make most sense in the current challenges that we face. Furthermore, I relate these proposals to the revised version of the evaluation criteria as published by the OECD in December 2019 (OECD/DAC 2019). These issues are further explored in the following sections.

From ex ante to ex post “relevance”

Relevance was defined in the 2002 version of the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) glossary of evaluation terms as “the extent to which the objectives of a development intervention are consistent with beneficiaries’ requirements, country needs, global priorities and partners’ and donors’ policies (OECD/DAC 2002: 32). As I have argued elsewhere,⁸ this is a retrospective ex ante assessment, because it focuses on the objectives of the intervention rather than the outcomes or the impact. My plea was to shift the relevance criterion to an ex post analysis. I also noted that this was in line with a growing share of evaluation practice (van den Berg 2011). The revised OECD criterion on relevance recognizes an ex post perspective and is thus a move in the right direction (OECD 2019: 7).

This move towards judging ex post relevance is especially important in cases where contextual factors are paramount and where the aim is for longer term impact. For example,⁹ a single mother in a remote village in Western Africa received training to make soap bars that she could then sell at the local market so that she earns sufficient money to take care of herself and her child. She also received a small loan to get started. Five years later, an evaluator comes to the village. The evaluator concludes that the intervention was relevant, because it addressed the woman’s livelihood. The evaluator also concludes that the intervention was effective, because the woman succeeded in making and selling soap bars. On impact, she notes that the woman now is independent and can take care of herself, whereas a comparable woman in a neighbouring village who did not receive the training has become dependent on her family.

In a relatively stable environment, this may be sufficient. In a more dynamic environment, it may not. For example, assume that the country is going through a process of transformation, that a new middle class is emerging and that recently the first supermarket opened its doors in the village. Suddenly, the simple bars of soap that our heroine offers on the local market are not that attractive anymore. She may have the advantage of regular customers, and she may be able to offer cheaper soaps than the more glamorous brands in the supermarket. However, in the end she will not be able to compete against cheap, mass-produced bars of soap – her livelihood is in danger. An evaluator returning to the village after 10 years may conclude that the intervention was not so relevant after all as the solution to the woman’s livelihood turned out to be temporary.

Furthermore, the value of money may change as well. Ravi Kanbur (2001) called attention to the purchasing power of money and the potentially dramatic consequences for the poor. If they have a slight increase in earnings, but food and essentials

become more expensive, they may have an increased income but be unable to buy sufficient food. If the emergence of a new middle class sees a parallel increase in inflation, our soap-making woman may continue to sell in her niche of the market but she may find buying essentials for her family increasingly problematic – her income will not rise in accordance with the prices of other goods.

If these contextual factors are taken into account, our evaluator may conclude that the project was very effective, but that its impact is in danger of disappearing, not so much because the intervention did not work, but because the intervention is no longer as relevant. With the benefit of the hindsight, the evaluator may conclude that it would have been more relevant to teach the woman how to become a successful entrepreneur, rather than a producer of soap bars.

Consider a poverty-focused intervention that takes the environment into account.¹⁰ In Kenya, a smallholder farmer and his wife manage to feed their family but lack the necessary monies to send their children to school. Agricultural researchers arrive at their farm and provide a diagnosis: their farm is biodiversity poor and will probably not be productive in the long run. They offer recommendations on how to make the farm more sustainable by introducing more variety and improved farming practices. The researchers have a proposal: they will provide – free of charge – new varieties of plants and fruit trees and will advise on farming practices such as intercropping and water catchments, provided that the husband and wife test these new varieties and practices on the farm. They agree, and in just a few years, they manage to improve both the quantity and the quality of their crops. Some plants worked out and some did not. Some practices were beneficial; others did not work out as expected. In three years, they manage to treble their income and are now able to send their children to school.

Five years later, an evaluator arrives and finds that the intervention was very relevant in its objectives, because the poverty was alleviated through increased income that was based on improving farm practices. Further, the environment was served as well: biodiversity at the farm level was increased and the farm is more sustainable, less susceptible to diseases and crop failure. Both economically and environmentally, the farm had become sustainable. The evaluator leaves satisfied, observing a tangible win-win situation in which poverty was significantly reduced and the environment was improved.

However, if the evaluator took the broader context into account, the picture would perhaps not be so rosy. The variety of mango introduced on the farm was very successful: easy to grow, better tasting and more resistant to drought. This has not escaped the attention of some entrepreneurial farmers. Several farmers with larger farms have introduced the same variety on a larger scale. After a while, the new mangoes are not only coming from our farmer husband/wife team, but also from the larger farms. These larger farms may aim for larger markets and distribute their mangoes to nearby cities. But some of their mangoes will compete with the mangoes of the husband/wife team, may thus reduce their income and may stop them trying to compete – and thus reduce biodiversity on their farm as well. The larger farms may eventually start exporting their mangoes to Europe (provided they

can demonstrate that the mangos are disease free). If so, many smallholders may be bought out of their farms to create new, large-scale farms. Ultimately, the success of the larger farms may lead to uprooting of smallholders for an uncertain life in the city or as farm hands, more mono-cropping in the region and may ultimately reduce overall biodiversity.

These possible developments may undermine the very positive early assessment of the intervention. In themselves, they do not need to be bad. For example, exports may provide much-needed foreign exchange that will support the country's economic development, or reductions in biodiversity in areas that are better suited to monoculture farming and investments may be offset by gains in biodiversity in other areas. Increasing economic activities in cities may provide former smallholders with new opportunities for increased incomes and longer-term security. However, it is clear that the original intervention of providing some well-intentioned advice to smallholders could not take all of this into account at the start.

If the linkage between poverty and the environment is taken seriously, and if an intervention aims to address both through win-win solutions – or a reasonable trade-off that is agreed with stakeholders – relevance needs to become an *ex post* criterion in addition to an *ex ante* criterion. Evaluators should look at outcomes and impacts and assess whether the outcomes are relevant to the impacts that are meant to be achieved or whether that relevance is endangered through contextual factors or a dynamic in the social, economic or environmental domains.

The revised OECD criteria also take contextual factors into account in a new criterion: coherence, which focuses on “the compatibility of the intervention with other interventions in a country, sector or institution” (OECD 2019: 8). While this is certainly important and needs to be included in evaluations, this does not cover the developments that I just sketched: supermarkets reaching remote villages and offering competing products to local production, or a new variety of fruit being taken over by agro-industries and out-competing smallholder production. The focus of the DAC is very much on coherence of interventions, and while the strategies of a supermarket chain and an agro-industry could be described as “intervention” or at least “interventionist,” they are not part of efforts of a society or economy to “harmonise” and “co-ordinate” efforts, but rather of competition on markets and market development. A full *ex post* assessment of relevance will take these into account, whereas an assessment of coherence may or may not capture it.

From impact as relationship to impact as final goal

The Development Assistance Committee glossary of key terms in evaluation and results-based management defined impacts as “positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended” (OECD/DAC 2002). This is not defined as a relationship, but as a kind of final state or a snapshot of effects a long time after the intervention terminated. However, in much of the current debate on aid effectiveness, “impact” is used to denote a scientific proof of a *causal* relationship between

input, output and outcomes. This is evaluated in so-called impact evaluations, which seek to assess the changes brought about by an intervention (the impacts) by comparing the observed result with a “counterfactual” (the result likely to have been observed without the intervention). If the counterfactual is carefully specified and empirically grounded, then the difference between results observed and the counterfactual can reasonably be attributed to the intervention itself, and not to extraneous factors. Ideally, this counterfactual should be built into the design of the project and observed during its implementation. This kind of evaluation and what it studies could be referred to as “direct impact” evaluations.

If evaluations need to address the complex interrelationships between poverty and the environment over a longer period after the project has ended, they will need to focus on the broad processes of change in which the intervention was one of many factors. These evaluations tend to focus on contribution analysis rather than counterfactual analysis and are ideally undertaken several years after the intervention has stopped in order to assess whether the processes of change that the intervention started have been replicated, scaled up or have catalysed trends in society or the economy. Provided that the intervention’s contributions can be demonstrated, these evaluations tend to provide crucial information on the intervention’s relevance, that is, if they really lead to longer-term processes of change or trends that are solving the problems. The focus of these evaluations could be referred to as “final or ultimate impact.”

In my speech to the International Development Evaluation Association in 2010 (van den Berg 2011), I proposed to make a clear distinction between “direct” and “final” impact issues, because both practices bring us benefits and the relevance of interventions for solving problems in society, the economy and the environment needs to be found at the final or ultimate impact level. We need to be able to refer to “impact” at the highest level in our results chain, also because this conforms to ordinary usage of the term (e.g. in public debates about whether “aid had any impact on Africa”). It would help us take into account the time horizon that is necessary for a sustainable interaction between the social, economic and environmental domains.

The revised OECD criteria follow my argumentation to a large extent, by focusing on “The extent to which the intervention has generated or is expected to generate significant positive or negative, intended or unintended, higher-level effects” (OECD: 11). The OECD does not see the need for a recognition of direct impact, as I argued, as they note that “valid attribution is embedded in all criteria”. While I applaud this perspective, it is a battle with the impact evaluation community that is not yet won.

From sustainability to adaptability

As an evaluation criterion, sustainability can be a frustrating concept. DAC defined it as “the continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time” (OECD/

DAC 2002: 8). This definition includes two approaches that would allow us to say a bit more about sustainability: assessing the probability that benefits would continue and assessing the risks to continued benefits. The revised OECD criterion on sustainability strengthens this perspective and places this within a systems perspective as an improved and transformed balance between “financial, economic, social, environmental and institutional capacities of the systems needed to sustain net benefits over time” (OECD 2019: 12). While I applaud the direction this takes, I continue to argue that we need to explore this further in terms of probabilities and risks.

A thoughtful example of a well-developed approach to the probability of sustainability can be found in the Swedish International Development Cooperation Agency (SIDA) evaluation manual *Looking Back, Moving Forward*. The manual describes factors that may influence sustainability and presents key questions that could be asked to ascertain whether the benefits of the intervention under evaluation have the “potential” to be sustained in future (SIDA 2004: 35–37). Key questions include a focus on whether the intervention is in line with local priorities, culture and social conditions; whether there is institutional and financial continuity; and whether the intervention is compatible with a sustained use of natural resources. It points out that each evaluation of sustainability of an intervention would have its own set of questions, specific to the context of the intervention.

GEF follows the risk approach to sustainability. In its guidelines for terminal evaluations of GEF-funded projects, it identifies five areas of risk that need to be explored: financial risks, socio-political risks, risks to the institutional framework and governance risks and last – but not least – environmental risks (GEF EO 2008b). In principle, these risks should cover long-term developments in all three pillars of sustainable development. This risk approach can help us identify what is of local or global significance, where a public good perspective is needed to reduce risks and what can be done to ensure longer-term sustainability.

However, climate change is making it increasingly difficult to correctly identify environmental risks. Concurrently with the ongoing assault of climate change (leading to, among other things, higher temperatures, greater variability in weather and more extreme events), predictability has become elusive. Reduced local predictability leads to higher levels of risk, as temperatures fluctuate more than before, water availability becomes more seasonable and extreme weather events become more severe and frequent. These risks need to be taken into account and have led to calls for climate change adaptation.

The best current approaches to climate change adaptation, both in specific interventions focused on adaptation itself and in regular mainstream development or in poverty alleviation strategies, are risk-based and aim to reduce the risks to society and economies from climate change. This risk reduction is very similar to the risk approach to sustainability assessments. My contention is that this kind of risk approach is appropriate for sustainable development, including a public goods approach to poverty and the environment.

It also recognizes the unpredictability of the future. Achieving a sustainable balance among civil society, the economy and the environment will require constant

adaptation to the three pillars' specific requirements. Adaptation calls for adaptive management, and in the final analysis, for adaptive evaluation: one that recognizes the sudden shifts in the different domains and uses those as a basis to formulate sustainability issues, rather than relying on the goals and perspectives that existed at the outset of a strategy or intervention, whether it targeted poverty or the environment. Finally, when we turn sustainability into an adaptation issue, we are able to take the public goods perspective into account when looking at what can be solved by markets and private initiatives versus a perspective in which governments and international organizations are essential to ensuring a sustainable future.

Notes

- 1 Paris Agreement under the United Nations Framework Convention on Climate Change, drafted in December 2015 in Paris and signed on 22 April 2016 in New York, USA.
- 2 United Nations General Assembly, Resolution adopted by the General Assembly on 25 September 2015, A/Res/70/1.
- 3 State of the Union address, 1988, available at <http://janda.org/politxts/State%20of%20Union%20Addresses/1981-1988%20Reagan/rwr88.html>.
- 4 This section is based on van den Berg (2011).
- 5 Interview with Nicholas Stern in *The Guardian*, Thursday, 29 November 2007, available at guardian.co.uk.
- 6 And when confronted with criticism of his calculations, Stern corrected them – upwards. See D. Adam, 'I underestimated the threat, says Stern', *The Guardian* (London), 18 April 2008, <https://www.theguardian.com/environment/2008/apr/18/climatechange.carbonemissions>, accessed 13 August 2020.
- 7 This section is adapted from van den Berg (2011).
- 8 Speech to the IDEAS conference in Amman, Jordan, in April 2011. Speech available at <https://player.vimeo.com/video/22901848>.
- 9 This example is derived from a rural development IFAD project I visited in 2001.
- 10 This example is derived from a 2007 visit to Kenya to a UNEP-implemented GEF-funded project.

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