EVALUATING THE POVERTY– ENVIRONMENT NEXUS IN AFRICA

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Background

The idea that poverty and environmental degradation are linked has been discussed, debated, rediscovered and reinvented numerous times. An early published manifestation came from Thomas Malthus who saw the main threat to ‘the intention of the Creator that the earth should be replenished’ being ‘an unhealthy, vicious and miserable population’ (Malthus 1826: XXIV). Colonial powers in Africa and Asia ensured continuity of the thesis. The entire discourse of increasing populations of poor and desperate people undermining the integrity of the natural environment is imbued with hidden messages, not least of which is that rural peasantry equates with poverty, poverty with ignorance and ignorance with environmental stupidity.

Since the 1992 Earth Summit, the concept of sustainable development has renewed interest into the poverty–environment debate (Gray and Moseley 2005). Popularizing the concept, the Brundtland Report described how ‘poor people are forced to overuse environmental resources to survive from day to day, and their impoverishment of their environment further impoverishes them’ (World Commission on Environment and Development [WCED] 1987). Influential organizations have perpetuated the link between the condition of the environment and the state of poverty, especially via issues such as food security and health. For example, the International Food Policy Research Institute has stated unequivocally ‘the condition of the world’s natural resource base in the year 2020 largely depends on whether poverty has been eradicated’ (Pinstrup-Andersen and Pandya-Lorch 1995). The basis for such assertions is the presumed coexistence of areas of poor people with areas of severe environmental degradation, leading to the assumption that poverty drives people to use their resources unsustainably; the evidence, however, is weak.

Indeed, such has been the pervasive nature of the sustainability concept that poverty (along with population) and the environment have become so inextricably associated that they have earned the epithet ‘nexus’ – that is, a set of mutually reinforcing links between poverty and environmental damage (Ekbom and Bojö 1999; Dasgupta et al. 2005). Nexus is particularly used in the context of it being one of the main challenges to achieving the Millennium Development Goals (MDGs; United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP] 2003). There is a compelling body of evidence, both biophysical and socio-economic that the environment is one of the core building blocks for pro-poor economic growth (UNDP-UNEP Poverty-Environment Facility 2008). The predominant school of thought argues that poverty is a major cause of environmental degradation. If policy makers want to tackle environmental issues, then the nexus discourse states they must first address the poverty problem (Duraiappa 1998). Poverty, it is argued, undermines environmental sustainability through a number of complex drivers, not least of which is that the poorest in their desperation to sustain their lives have to undermine their environment (Lufumpa 2005). Deforestation, land degradation, low agricultural productivity, water scarcity, threats to biodiversity and the impact of civil conflicts are all frequently cited as negative impacts resulting from the close linkages between poverty and environment (Lufumpa 2005).

This chapter describes the challenge of evaluating such a broad and complex concept as the poverty–environment nexus. It reports on the ‘Evaluation of UNDP Contribution to Environmental Management for Poverty Reduction: The Poverty-Environment Nexus. Final Report’ (hereinafter the Poverty–Environment Nexus), an evaluation commissioned by United Nations Development Programme (UNDP) to examine how the organization handles on the one side its core mandate (addressing poverty in the developing world) and environmental sustainability on the other side (an issue that is more often seen as the concern of other agencies and, by many developing countries, not a high priority (EO of UNDP 2010)). The evaluation had to accommodate a number of theoretical and practical questions, the first of which was why should poverty and the environment be linked; is it just received – and assumed – wisdom that UNDP should be addressing environmental issues as a way of achieving poverty reduction targets? Or would the ready availability of finance for the environment through the Global Environment Facility (GEF) dictate a focus on poverty–environment linkages without embedding the intellectual underpinnings of the nexus in the organization? These and other issues are addressed in the following sections that describe the methods and principal findings of the evaluation, with a special focus on Africa.

Why might poverty and environment be linked in Africa?

Poor people live more intimately with their biophysical environment, depending much more directly on the natural resource base for their food, energy, water and shelter. They till the soil, collect wood for the fire, fetch water in buckets and construct their houses from local materials. Their livelihood is spatially and temporally

tied to the condition of their natural resources. Therefore, if the resources are degraded, poverty ensues; if poverty is endemic, resources are degraded. The media reinforces this two-way link. Images of starving people in the Ethiopian famine of 1984 were always seen against a backdrop of treeless desert or bare fields. When their survival is at stake and alternatives are impossible, it is argued that people will overuse their resources. Desperate hunger leads to desperate strategies for survival. Future welfare has to take a back seat when sheer survival is in question.

Nevertheless, a direct link between poverty and environment is contested. One study of two adjacent farming blocks in central Zambia found that the more prosperous commercial farming block was far more subject to environmental degradation than the adjacent block of small subsistence farms (Stocking 1983). Indeed, affluence may enable greater investment in land use technologies that intensify farming practices and more readily degrade the soil of its organic and nutrient content. In contrast, the more elaborate and complex practices of smallholders are less damaging to the environment and may even mimic nature.

Linkages are, however, complex and involve secondary influencing factors. In Kenya, the now (in) famous Machakos study, *More People, Less Erosion* (Tiffen, Mortimore and Gichuki 1994), showed how – under certain conditions – increasing population can provide opportunities for better control of soil erosion and the development of sustainable small-holder production systems. It helped by providing empirical evidence that the closely related *population*–environment nexus is not necessarily true (Tiffen, Mortimore and Gichuki 1994). The influence of nearby urban markets stimulated intensive but integrated land use practices, while at the same time supporting three times the population. The status of the environment improved almost beyond recognition with the innovation spurred by secondary factors. Access to credit and technologies to practice environmentally sustainable agriculture, plus the gaining of land entitlements, all combined to heal what had been an extremely degraded part of Kenya that supported only a low density of very poor people.

Property rights can be a major influence on the status of the environment. Not only does security of tenure lead to increased investment in the land, but it also encourages longer-term environmentally beneficial investments such as tree planting and soil conservation structures.² In Africa, communal tenure and common-property resources are often the norm, where, it is argued, there is little incentive for the individual to conserve for the good of the community. Africa is, therefore, the continent in which the poverty–environment nexus is most widely discussed; it is also the location for the largest global programme that addresses the nexus, the UNDP–UNEP Poverty–Environment Initiative (PEI 2012).³ The case of Malawi is instructive, where a 2011 PEI study calculated that unsustainable – and therefore, degrading – practices costs the country 5.3% of its gross domestic product annually, substantially more than its total funding of education and health (UNEP 2013). If this loss of gross domestic product translates to increasing rural poverty in agriculture, fisheries, forestry and wildlife (as PEI claims the government of Malawi now believes), then there is a powerful argument for a development strategy that targets sustainable practices as a way out of poverty.

Why evaluate the poverty–environment nexus?

A prevailing view among some development professionals is that investments in UNDP's core mandate may have to allow for some environmental damage. Even more common is the view that investments in environmental conservation, such as national parks and forest reserves, need not worry unduly about their impact on local people. Land alienation and restricted access are issues that have been hotly debated in Africa since colonial times.⁴ An evaluation should not only identify whether these views were entrenched, but should also seek empirical evidence as to whether investments in the poverty reduction or environmental conservation areas had beneficial unintended effects for the other area (and, if so, what aspects of project design contributed to the co-benefits?). Given UNDP's reliance on Global Environment Facility funding of environmental issues, it was especially important that UNDP could demonstrate co-benefits for both the global environment and for local development.

The hypothesis behind the poverty–environment nexus evaluation is that there is a set of closely linked issues – the nexus – that affects two major goals of United Nations developmental and environmental agencies: poverty alleviation and environmental protection. The nexus stems in particular from evidence that development schemes often sacrifice longer-term environmental sustainability for short-term economic and job creation benefits, and that over-exploitation of natural resources adversely affects ecosystem health (and, in time, reduces economic output). The Millennium Ecosystem Assessment, completed in 2005, the largest review of such linkages to date, produced compelling evidence at the global, national and local scales that *inter alia*, human health and welfare depends on the sustainable functioning of ecosystems and that these ecosystems are vulnerable to depletion by overuse that is often driven by the needs of poor people. For example, the Millennium Ecosystem Assessment found that 'over 1 billion people lack access to safe water supplies; 2.6 billion people lack adequate sanitation. This has led to widespread microbial contamination of drinking water. Water-associated infectious diseases claim up to 3.2 million lives each year, approximately 6% of all deaths globally. The burden of disease from inadequate water, sanitation and hygiene totals 1.7 million deaths and the loss of more than 54 million healthy life years' (Corvalan et al. 2005). It is the poor that are selectively and adversely impacted – it is also the poor who largely contribute to the microbial contamination. However, as this example illustrates, the links are by no means direct or uncontroversial. An evaluation should assist UNDP in building empirical evidence of how investments in poverty reduction might benefit the environment and, if they do, what multiple co-benefits may arise that would further justify gains in productivity bringing environmental benefits.

The rural poor disproportionately depend on the availability of natural resources for their subsistence livelihoods. Efforts to protect ecosystems and address other environmental factors can affect poor people's access to resources. Conversely, reducing poverty can affect the environmental systems' sustainability. There should, therefore, be a substantial poverty dimension to environmental protection, and a substantial environmental dimension to poverty reduction. Public support for these efforts is

a critical factor, as efforts to reduce pollution and conserve natural resources are unlikely to succeed if they unfairly restrict opportunities for local people to work and feed their families. Taken together, these dynamics suggest that integrated programming is necessary to simultaneously improve livelihoods for the poor while protecting the environment. An evaluation must identify not only whether integration is built into project design, but also how it is practised.

Scope and method of the poverty–environment nexus evaluation

The Evaluation Office of UNDP conducted the evaluation and assigned two senior officers specifically for it. A team of three consultants undertook much of the interviewing and analysis and drafted the final report. The team was led by a senior developing country professional and former Minister of the Environment with leadership experience in a number of high-profile international organizations. A professional evaluator with World Bank experience and an academic with Global Environment Facility and substantial project experience supported the team leader. All three met with staff from the Evaluation Office of UNDP at least three times in New York. UNDP assigned two support staff for research and data analysis. In addition, 21 national consultants were contracted for detailed case studies. The whole exercise took just over one year to complete.

At an early stage, it was decided that the evaluation should be both retrospective and prospective – it should take stock of the past while looking into the future. The latter is especially important given UNDP's leadership roles, being the most prominent agency sponsoring poverty reduction and, in many countries, the leading sponsor of environmental projects. Additionally, UNDP coordinates multi-agency donor support in many countries and has specific responsibilities regarding the United Nations reform processes.⁵

In terms of timeframe, the evaluation acknowledged that activities involving poverty–environment linkages have been ongoing since the 1992 United Nations Conference on Environment and Development. However, the evaluation's focus of analysis was limited to after 2004, covering the Second Multi-Year Funding Framework (2004–2007) and the strategic plan 2008–2011⁶ implementation periods. This narrower timeframe conforms to the period after the Johannesburg summit, when the Poverty–Environment Partnership⁷ and the UNDP–UNEP Poverty–Environment Initiative (PEI)⁸ were established. It also conforms to the period when the then newly appointed UNDP Administrator articulated a 'vision for UNDP to be widely acknowledged as a world class, knowledge based development organization which helps developing countries make transformational change and helps channel the strengths of the entire United Nations (UN) development system to that end'.⁹

The evaluation took an approach that built from standard evaluation criteria (relevance, effectiveness, efficiency and sustainability (UNDP 2009), organized around a set of broad evaluation questions (see Box 11.1). *Relevance* assessed the extent that poverty–environment interventions met the mandates of UNDP, other agencies that UNDP works with and its recipient countries. UNDP's core focus on poverty reduction was vital here, but so were the more recent priorities of UNDP

on the Millennium Development Goals, climate change and donor coordination. *Effectiveness*, a measure of the extent to which an aid activity attains its objectives, was tested with how far the nexus of poverty–environment issues was factored not only into the UNDP poverty and environment practice areas, but also in other practice areas such as crisis prevention, governance and gender. In addition, effectiveness was evaluated in the extent to which UNDP persuaded its agency and country partners to include poverty–environment issues in their work. *Efficiency* measured the outputs – qualitative and quantitative – in relation to the inputs in two principal ways in this evaluation. First, it looked at country requests and how these better link poverty and the environment, and second, it addressed internal UNDP structures to see if they were responsive to the poverty–environment nexus. This last question on the internal barriers to cross-disciplinary issues such as poverty–environment proved to be very important. Finally, *sustainability* examined how well poverty–environment linkages are embedded in the organization and are likely to continue.

BOX 11.1 EVALUATION QUESTIONS AGAINST UNDP STANDARD CRITERIA OF RELEVANCE, EFFECTIVENESS, EFFICIENCY AND SUSTAINABILITY

Relevance

What is the relevance of addressing poverty–environment linkages in UNDP work and activities, in relation to its overall mandate and the needs of programme countries?

- Is explicitly dealing with these linkages of high importance to achieving UNDP's strategic objectives, including support for MDG achievement?
- Is the poverty–environment nexus a critical aspect in the global effort to reduce and mitigate the effects of greenhouse gas emissions and assist in adapting to climate change?
- How does dealing with the nexus relate to UNDP's relationship with other United Nations agencies, the World Bank and other donors?

Effectiveness

Have UNDP efforts to link poverty and environment been 'generally acceptable' and have they achieved results?

- Do the poverty and environment practice areas at global, regional and country levels focus attention on this nexus of issues?
- Are poverty and environment-related priorities being factored into UNDP strategies and activities in other practice areas, such as crisis prevention and recovery, and governance?

(Continued)

- Is UNDP having success in encouraging country government partners to implement policies and programmes that harmonize poverty alleviation and environmental protection priorities?
- Has UNDP succeeded in establishing successful partnerships with other United Nations and international agencies in support of efforts to more closely link poverty alleviation and environmental protection?
- What approaches have been most successful, and what improvements should be made to enhance UNDP effectiveness?

Efficiency

Have the programmes and projects developed to better link poverty and environment issues been carried out efficiently?

- Has the effort enabled UNDP to respond more efficiently to country requests for assistance on sustainable development issues?
- Are there internal structural and financial aspects that have a significant bearing on UNDP efforts to improve poverty–environment programme linkages?

Sustainability

How well are the results of UNDP’s work to more closely link poverty alleviation and environmental protection policies being sustained?

- What are the contributions of UNDP in this regard to the long-term benefits to people’s well-being?
- Is there adequate support in UNDP’s structure and financial basis to continue addressing the nexus where there is further need and demand?

The evaluation employed a variety of data collection methods, including desk reviews, stakeholder interviews and country case studies. It was conducted in accordance with Evaluation Office of UNDP guidelines and methods, as well as standard evaluation practices such as the triangulation principle and the validation of facts and findings with relevant stakeholders. The evaluation team decided not to use questionnaires because of past experience with limited responses and the difficulty of obtaining clear responses on this conceptual topic without face-to-face interaction.

Because poverty and environment issues are so country-specific and vary so enormously between regions and between countries within regions, the evaluation team decided to use as large a sample as resources and time would allow. Therefore, the Poverty–Environment Nexus evaluation included detailed case

studies for nine countries, four of which are African (Mali, Morocco, Rwanda and Tanzania), telephone interviews with personnel in 29 other countries, 8 of which are African (Botswana, Cameroon, Ghana, Kenya, Mozambique, Senegal, South Africa and Tunisia) and regional consultations including UNDP offices in Nairobi and Pretoria and with key partner organizations. The telephone interviews were a departure from previous evaluations and proved to be rewarding. Country Offices telephoned took these interviews seriously, often as conference calls with several of their staff made available. Other telephone interviews were with individuals and were conducted by one of the core consultants. English, French and Spanish languages were used in these interviews. Responses in this format were often candid and sometimes surprising. Individuals appeared to be willing to give detailed and often critical information, sometimes asking that responses be taken confidentially. The team respected such wishes and anonymized all reporting, although it would probably have been possible for views to have been traced back by anyone with close UNDP experience.

The detailed case studies were contracted to local consultants who were given a standard format for reporting. The case study outputs provided less useful information than had been hoped for, tended to repeat large amounts of data on poverty and environment information already in the public domain and were somewhat light in analytical rigour. Criticism of the organization of Country Offices, the barriers to uptake on poverty–environment nexus issues and difficulties with individual projects were muted. In retrospect, the contracted consultants chosen for their local knowledge were perhaps being careful to avoid undue criticism of their subjects, given their reliance in the future on building good relationships for potential further consultancies. Nevertheless, the core consultants were able to use these studies to give empirical backing to views and opinions expressed in the telephone interviews and other face-to-face meetings. The methodological approach enabled the team to sample a wide variety of opinions, engage stakeholders in more substantive discussions and probe country-specific issues.

Challenges and limitations

Cross-cutting topics such as poverty and the environment present major challenges to agencies with a singular or thematic focus. There is little incentive under such conditions for professionals to work together. With the exception of the PEI, few results frameworks or baseline indicators are available to assess efficiencies and effectiveness. Consequently, many of the findings are subjective and rely on participants' and stakeholders' views. Therefore, the PEI was given special attention along with UNDP's role as an implementing agency for GEF, the largest funder worldwide of projects to improve the global environment. From 2006 to 2010, UNDP assisted partner governments to secure a total of US\$1.146 million in funding from the GEF, an average of US\$286 million per year. GEF funding has comprised roughly 50% of UNDP annual environment and energy expenditures. As part of its GEF implementation responsibilities, UNDP also administers the Small Grants Programme,

which focuses on local environmental issues and is especially pertinent to the poverty–environment nexus.

However, the emphasis on PEI and the GEF brought challenges and limitations to the evaluation. PEI was (and still is) a somewhat isolated outpost of UNDP, both geographically (Nairobi) and thematically (cross-disciplinary). Being jointly run by the two UN agencies has meant that its survival in times of budgetary crisis was continually in question, with financial priorities usually assigned to mainstream practice areas. The GEF provides the ‘increment’ or top-up to development projects in order to deliver global environmental benefits such as biodiversity conservation, climate change mitigation and protection of international waters.

In many GEF projects, the increment is no more than one-twentieth of total project expenditure. Three challenging outcomes arise from this model of project funding: (1) the environmental components assume a far lower priority than developmental components; (2) a particular slant is imposed on the environmental component to gain what are accepted as global environmental benefits, rather than domestic or national environmental issues such as soil conservation or agricultural sustainability; and (3) the availability and relatively easy access to GEF funding enabled UNDP to become dependent on GEF for environmental funding, thereby allowing its core resources to be more concentrated in its other practice areas. The poverty–environment nexus evaluation used these points initially to interrogate some of the difficulties of the GEF model of project funding as applied to UNDP and encourage a more holistic and integrated approach by UNDP.

Findings: country case studies

This section summarizes the findings from the evaluation’s four country-based case studies conducted in Africa (out of nine worldwide). By most criteria, the Mali, Rwanda and Tanzania case studies provide situations of substantial rural poverty alongside considerable environmental degradation. Hence, they could be expected to be country cases where the poverty–environmental nexus would not only be prominent but also a high priority for development agencies and country ministries. The evaluation used these case studies as an important source of evidence to support its findings. Each case study involved a review of relevant documents and interviews with key individuals. The documents reviewed included major national policies and strategic frameworks as well as UNDP country programme documents (such as the United Nations Development Assistance Framework [UNDAF] and the country programme action plan) plus specific documents related to the poverty–environment nexus.

Mali

Mali ranked 184th out of 189 countries in the 2019 UNDP Human Development Report (UNDP 2019), with a Human Development Index rating of 0.427. Just under half of its population (49.7%) earns less than US\$1.25 per day (UNDP 2019).¹⁰ The annual birth rate is projected at 2% through 2014, and the adult literacy

rate is 33.1%. Mali's economy is primarily based on agriculture and agropastoralism, with agriculture accounting for more than 35% of GDP and 80% of livelihoods (FAO 2017). More than 80% of rural and urban household energy requirements are met by wood fuel and biomass resources.

The country's geographical location, small percentage of arable land (14%) and low level of economic development leave Mali vulnerable to climate change. Almost three quarters of the population (73%) lives in rural areas under extreme poverty. Sustainable land management is a major concern, with the economy largely dependent on the primary sector, notably agriculture and farming.

Given the seriousness of both the status of poverty in Mali and the condition of its environment, it was not surprising that the evaluation found high levels of political and public awareness of the nexus. UNDP has been a major partner in the effort to mainstream natural resources and environment into the country's Strategic Framework for growth and Poverty Reduction and the National Policy for the Protection of the Environment. It has also been a partner in implementation of the PEI, which included several diagnostic studies, including the development of indicators. Two thirds of the Country Office programme budget is committed to activities directly related to the poverty–environment nexus under the UNDP country cooperation framework 2008–2012, most of it (54%) to poverty reduction and achieving the MDGs (only 12% went to environment and energy). The main results of the PEI project included greater awareness and knowledge on poverty and environment linkages at national level, establishment of tools and mechanisms to integrate environment into national development planning and decentralization frameworks and enhanced national capacity to integrate environment into national development planning and decentralization processes.

Yet, problems remain in mainstreaming the nexus as opposed to poverty and environment as single issues into UNDP practice areas. A PEI evaluation concluded that the initiative in Mali has not achieved all its intended results (Bass and Renard 2009). Problem areas related to the structure and composition of project management committees and delays in fund disbursements, a weakness identified generically in the marginal structural position of PEI in the UNDP portfolio. In contrast, the GEF Small Grants Programme successfully supported communities in developing and implementing poverty–environment community projects through linked environmental conservation and income-generating activities.

Underlying the weaknesses in the poverty–environment nexus in Mali is that UNDP staff has limited understanding as to what constitutes the poverty–environment nexus in practical terms. This leads to operational issues such as delays in release of funds, institutional issues (e.g. coordination) and structural issues that inhibit collaboration between units. Lessons from PEI implementation in Mali included the need for a stronger project management unit at country level to ensure greater impact on national and local planning processes and stronger advocacy with national decision makers. The best way forward was considered to be community-based demonstration projects on sustainable environmental management and improved living conditions to support decentralization of environmental management

Morocco

In 2018, Morocco had an annual per capita income of US\$3,273 (UNSD 2018) and a population of approximately 36.03 million people.¹ From 2001 to 2020, relative poverty declined from 15.3% to 4.8% nationally,² while for the same period, vulnerability decreased from 22.8% to 17.5%. The data indicate that 3.9% of people were subjected to undernourishment in Morocco between 2015 and 2017 compared to 5.7% in the period between 2004 and 2006 (FAO et al. 2018). However, 4.8% of the population still live below the national poverty line in 2018 (UNDP 2019).

Morocco has three principal ecosystems: the mountain forest ecosystem; the oasis, desert, semi-desert ecosystem; and the Mediterranean coastal and marine ecosystem. Each zone experiences different forms of land use, providing important environmental goods and services. Some of these land uses are vital to the national economy (e.g. phosphate mining, tourism) and also to the livelihoods of the rural poor (e.g. rain-fed and irrigated agriculture, pastureland, water for irrigation). One of the major concerns in Morocco therefore relates to degradation of environmental resources (land, water, biodiversity), which also poses a threat to the livelihoods of communities that depend on these goods and services. There is, however, little information on the current status of environmental degradation.

Given the middle-income status of Morocco and the low profile on environmental issues, it might be expected that the poverty–environment nexus issues are relatively muted in their inclusion in country strategies for Morocco. Unsurprisingly, Morocco had only one policy framework relevant to the poverty–environment nexus: the national initiative for human development policy statement, which the king promulgated in 2005. The national initiative for human development encapsulates the poverty–environment nexus principles of participatory local development. This is the means by which progress towards achieving the MDGs is being driven. At the time of the evaluation, a poverty strategy was being formulated but had not entered into force.¹¹ At the project level, the evaluation found several projects that could be said to be ‘poverty–environment nexus compliant’, such as integrated rural development.

There is public awareness of poverty–environment nexus issues, as indicated by the large number of domestic Non-governmental organizations undertaking relevant activities with communities. The UNDP Country Office, in its position as trusted strategic partner with the government, is playing a role in promoting the coherent implementation of the poverty–environment dimension of sustainable development in Morocco. Nevertheless, constraints to effectively integrating poverty–environment nexus issues include limited understanding of the concept, need for indicators/guidelines, lack of criteria for nexus and the clustering of programmes as either ‘poverty’ or ‘environment’. For this middle-income country, there is some way to go before it could be said that the poverty–environment nexus informs the design and implementation of country projects for sustainable development.

Rwanda

Rwanda ranks 157th out of 189 countries in the 2019 Human Development Report; its Human Development Index is 0.536 (UNDP 2019), which is below the average of 0.541 for countries in Sub-Saharan Africa (UNDP 2018). Consequently, poverty is a priority issue in Rwanda's development policy. The structural dimensions of poverty and vulnerability, particularly demographic pressures and environmental degradation, exacerbate an already complex situation. Population density in Rwanda is the highest in Africa, with more than 415 persons per km² [highest compared to neighbouring countries such as Burundi (333), Uganda (173) and Kenya (73)], and the approximate population growth rate is 2.6% per year. In addition, 83% of the nearly 10 million people live in rural areas, with livelihoods dependent on the natural environment (NISR 2012).

The significance of environmental management to the government's policy objectives is underscored in several strategic documents, including the Environment and Natural Resources Sector Strategic Plan (2009), the Environment and Climate Change Strategic Plan and the National Biodiversity Strategy and Action Plan (Government of the Republic of Rwanda 2009a, 2009b and 2003). A key goal of the government to be achieved by 2020 is integrating environmental objectives into all policies and programmes pertaining to economic and social development as well as all decision-making processes. Strategic inclusion of the poverty–environment nexus in Rwanda is, therefore, significant.

Nevertheless, barriers remain, not least of which is the persistent separation of environmental from poverty issues. The United Nations Development Assistance Framework 2008–2012 addresses poverty and environment as two separate issues. Outcome 4 of the component on energy and the environment for sustainable development is 'management of environment, natural resources and land is improved in a sustainable way', and Outcome 5 of the component on achieving the MDGs and poverty reduction is 'Rwandan population benefits from economic growth and is less vulnerable to social and economic shocks'.

The 2008–2012 UNDP country programme document proposed a total contribution of US\$41 million, with US\$9.5 million earmarked for programmes related to the poverty–environment nexus (US\$8.5 million to environment; US\$1 million to poverty). The country programme document also treats environment and poverty as separate issues for budgeting and programming purposes. This indicates that UNDP, in its discussions with a country partner, has not yet embraced the poverty–environment nexus concept at the planning or operational levels.

UNDP has a special role in Rwanda, as the country was one of only eight chosen to pilot the Delivering As One concept to achieve 'a more effective, efficient, coherent, coordinated and better performing United Nations country presence'.¹² The UNDP Country Office is promoting implementation of the poverty and environmental dimensions of sustainable development in Rwanda, particularly in the context of the United Nations Development Assistance Framework and the One UN programme. Yet indications are that the poverty–environment nexus has not

taken root in the Development Framework, and the country programme document still addresses poverty and environment as separate issues. This points to the need for concerted efforts to develop the tools (e.g. manuals, brochures and guidelines) for awareness raising and targeted training of UNDP staff who are expected to manage poverty–environment nexus–related programmes. It also calls for commitment, determination and consistency by the UNDP Country Office to support national priorities and initiatives.

The United Republic of Tanzania

Poverty in the United Republic of Tanzania can be considered within the context of three fundamental realities. First, about 80% of the country's poor lives in rural areas (UNDP 2017). Second, these rural people overwhelmingly depend on agriculture and other natural resource uses for their livelihoods. Third, the economy is based largely on land and natural resources, particularly forests, biodiversity and agriculture. Thus, poverty and the environment are intrinsically linked, and the poverty–environment nexus is a central consideration in all sustainable development policies and strategies.

The government displays a clear political will to address the poverty–environment nexus at the national level. This is demonstrated by the development of poverty–environment indicators.¹³ Tanzania is one of the few countries into a second generation of poverty–reduction strategy papers, supported by UNDP. The agency plays a key role in supporting programmes and projects to mainstream poverty and environment issues in government policies, strategies and programmes at all levels. The PEI project has promoted awareness of the linkages between poverty and environment, and it continues to contribute to understanding and development of poverty–environment nexus tools and indicators. Key results include the establishment of a national environment education strategy; development of poverty–environment indicators and reviews of the Poverty Reduction Strategy process and Poverty Monitoring System. UNDP continues as a trusted partner with government as the lead authority on sustainable development, promoting coherent implementation of the poverty–environment dimension.

Even in Tanzania, almost a model country in terms of sensitivity to poverty–environment linkages, the evaluation identified limitations to both the inclusion and practice of the poverty–environment nexus. UNDP staff had limited understanding as to what constitutes the nexus in practice. Definition, guidelines and criteria for the nexus and guidance in how to assess progress in achieving operational targets regarding the nexus were absent.

In government agencies, policies and legislation on benefits and cost-sharing arrangements through ecosystem payment mechanisms were weak or non-existent. For example, few benefits of big projects on biodiversity and ecosystem conservation and protection trickled down to local populations, a disincentive to participation in the poverty–environment nexus. Joint programming and funding of the nexus will remain a major challenge.

Development partners of UNDP continue justifiably to have policies that dictate their preferences on thematic areas, different proposal approval and funding cycles and/or different monitoring and evaluation and reporting requirements. This has to be appreciated in the promotion of even cross-cutting issues such as the linkages between poverty and the environment. Harmonizing and coordinating joint programming for the poverty–environment nexus will, therefore, remain a challenge. Country Office experience suggests that integrating environment into the policies, strategies and plans should continue at the ‘upstream’ level. However, there is a need to extend integration and mainstreaming to implementation, particularly to projects at community level.

Despite the promotion of the poverty–environment nexus from UNDP headquarters and elsewhere, the Country Office continues to cluster programmes as either poverty or environment. This creates difficulties for gaining credence for the nexus and for fostering its true integration into projects and programmes.

Overall findings: the retrospective

The country case studies from Africa – and indeed from Asia and South America – revealed a reasonably consistent set of findings for the evaluation. Weaknesses in UNDP dealing with poverty–environment nexus issues arise from a poor understanding of what the nexus means and how it can be practically implemented, entrenched views among staff that activities are either poverty focused or environment focused, lack of incentive to develop poverty–environment nexus projects across practice areas and the marginalization of the topic itself and lack of partners’ awareness of the poverty–environment nexus (including other agencies and donor governments). The practice structure of UNDP was often seen as inimical to cross-disciplinary initiatives: ‘silos’ were mentioned frequently, meaning that careers, promotion and plaudits from headquarters depended more on how well an individual developed his or her practice (or focus) area in UNDP, than on how well he or she cooperated with other practice areas.¹⁴

Interviews with agencies, telephone interviews with Country Offices and meetings with professionals involved with the poverty–environment nexus corroborated the overall findings. Strategically, UNDP has embraced the poverty–environment nexus at the global, regional and national levels. Many countries have quite impressive strategies that emphasize the importance of nexus in achieving sustainable development. Yet, the poverty–environment nexus is a difficult and sometimes elusive topic that does not easily translate to meaningful actions. Most people agree it is vital to adopt an integrative approach, but when it comes to practice it is easier to develop single-practice projects that are ‘poverty–environment nexus-compliant’, in that the linkage is recognized but are not ‘poverty–environment nexus-active’ in terms of real activities on the ground.

The major findings, including for non-African countries, are outlined next.¹⁵

1. Within UNDP there is substantial recognition of a poverty–environment ‘nexus’ and of its importance for countries to achieve sustainable development.

However, the articulation of this awareness is uneven and somewhat haphazard throughout the organization.

At the field level, the linkages are generally understood to mean taking account of poverty issues in environmental work. At regional and headquarters levels, the understanding of the nexus is sometimes more sophisticated but is rarely translated into a consistent articulation of principles and practices in strategies or guidance. Where good practice is found and replicated, it more often than not arises from individual ‘champions’ and Country Office initiatives rather than a coordinated institutional approach.

1. UNDP’s focus area structure promotes a ‘silo effect’ that makes cooperation across sectors difficult.

Because the nexus is not incorporated into UNDP’s goals or measures of performance, there is no incentive for staff to take up integrative, cross-sectoral initiatives. Interviews and other evidence from the 38 Country Offices analysed in this evaluation show that in some Country Offices there has been very little coordination between the environment and poverty focus areas (e.g. Botswana, Costa Rica, India, Kenya), while in others they have worked together on an *ad hoc* basis (Malaysia, Mozambique, Papua New Guinea and Viet Nam).

In some Country Offices, a close working arrangement can be seen (Bangladesh, Dominican Republic, Ghana, Lao People’s Democratic Republic, Sri Lanka, Thailand), whereas in others, the Country Offices have combined their focal-area structures to better address linkages (Cameroon, Senegal), or simply for greater programme management efficiency (Bulgaria, Syrian Arab Republic, Ukraine).

2. UNDP’s dependence on external funding, especially for environmental activities, reinforces the institutional focus on area-specific work and makes it more difficult to articulate the connections among UNDP priorities.

Most donors do not provide incentives to address poverty–environment linkages, although many external funding sources for environment programmes tend to be receptive to their inclusion. The GEF has been seen in the past as an impediment to poverty–environment linkages due to its focus exclusively on global environmental benefits. This has been changing in its past two replenishment cycles. Strategic plans now acknowledge the importance of promoting sustainable livelihoods to build local support, and there has been an expansion of programmes (especially small grants and programmes addressing land degradation) that focus on local impacts. There is evidence that UNDP has influenced GEF policy with regard to mainstreaming global environmental and local development benefits, particularly in the biodiversity focal area.

3. A systemic impediment to effective integration of poverty and environment in UNDP's work is the absence of monitoring processes and indicators, which affects both the initiation and the design of programmes and projects and the determination of their results.

The lack of indicators to track poverty–environment linkages, either qualitative or quantitative, significantly diminishes attention to the related issues. Reduced ability to monitor progress also reduces incentives. This applies to both programme and project monitoring, as well as to performance reviews of Country Offices and staff. The absence of monitoring and evaluation eliminates the potential for sharing and learning from best practices, and there is less information to disseminate about what is being done related to the poverty–environment nexus.

4. UNDP's efforts to highlight the importance and potential of poverty–environment linkages have been mixed, with significant achievements but considerable variation in direction and priority.

In many cases UNDP has used the processes of donor coordination and development of the United Nations Development Assistance Framework to encourage greater attention to poverty–environment linkages. In Mexico, UNDP has convened multisector environmental consultative groups and established 'platforms for debate' at local, state and federal levels. In Dominican Republic, UNDP has taken the lead on environmental sustainability aspects of achievement of the MDGs and used this work to foster poverty–environment nexus issues in its interactions with government. In Sri Lanka, UNDP and the government have worked closely under the UNDAF to promote more attention to the nexus. In United Republic of Tanzania, UNDP has led the pilot 'Delivering as One' and UNDAF activities to expand coordination among donors and ministries regarding poverty–environment issues.

5. UNDP's cooperation with other institutions on the poverty–environment nexus varies based on opportunities and on the level of interaction between organizations in a particular context.

Globally, UNDP is a partner to the major multilateral accords and conventions related to development. At the country level, UNDP plays a pivotal role due to its extensive Country Office presence and its management role of the United Nations resident coordinator system. This enables it to lead donor coordination and promote integrative activities through the UNDAF. Inter-agency rivalry at country level has sometimes inhibited cooperation, except where co-funding and donor support have been sought, such as for a GEF project where such cooperation is mandatory. One specific partnership that formally integrates the two focus areas has exhibited high potential: the PEI, with UNEP.

6. Country studies and interviews have shown that when nexus issues are recognized as critical to achieving sustainable development, there is strong support to address them in programmes and projects.

Positive examples have been seen in GEF-funded projects, notably the Small Grants Programme, as well as recent programmes on climate change adaptation.

7. There is evidence that positive results at country level can be replicated.

Favourable outcomes of initial PEI projects in Rwanda and United Republic of Tanzania in 2005 led to a significant scaling up of the programme in 2007. Eighteen countries were involved, including several in Asia and Pacific and two each in Central Asia, Latin America and the Caribbean. A further expansion of the PEI is anticipated.

8. Country-specific circumstances regarding the nexus play a major role in how poverty–environment linkages are understood and addressed.

Results vary by country depending on the commitment of the government, degree of cooperation within the government, efficiency of UNDP advocacy and effectiveness of PEI implementation. When government officials have recognized their country's dependence on natural resource management as a means to reduce poverty, there is good receptivity to the PEI. In five of the seven case study countries where it is operative, UNDP Country Offices were found to be supportive of the projects. They were using this approach to promote cooperation among practice groups and integrate poverty and environment into their activities as well as into government planning. Significant progress has also been achieved in other countries where Country Offices have actively promoted taking account of the nexus (UNDP 2019a).

Conclusion: the prospect

At the outset, UNDP always intended that the evaluation would include a vision into the future as to how poverty and the environment could be better linked and how investments could yield simultaneous co-benefits from both. In part, this prospective desire was driven by the knowledge that the nexus was relatively little understood except in rather simplistic terms, as indeed the evaluation found. Evidence was sparse and experience of employing positive results for future projects was rare. The evaluators, however, felt that this somewhat negative perception could and should be remedied and that identification of good practice in the poverty–environment nexus should be promoted. These lessons will be valuable in making generic recommendations based upon solid evidence from UNDP's own practices and that of others.

The evaluation identified five conclusions and articulated four recommendations for UNDP to encourage transformational change in the organization especially in breaking down some of the internal structural barriers to cross-disciplinary integration, an aspect over which UNDP should have full control itself as a learning agency (see Box 11.2).¹⁶

BOX 11.2 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. Addressing the poverty–environment nexus is essential to achieving the UNDP mission. The linkages between poverty reduction, environmental sustainability and progress on achievement of the MDGs have been well established in analyses by UNDP and other major institutions. Poor people depend disproportionately on access to natural resources for their livelihoods, and development and poverty-reduction programmes have significant effects on the environment.
2. Strategic planning and advocacy on the poverty–environment nexus are occurring at UNDP, but policy is not yet systematically translated into practice. Conversely, examples of good practice and success at local and regional levels are not being effectively communicated and replicated.
3. UNDP’s institutional and financing architecture serves as a barrier to integrated approaches. Particular problems are dependence on external financing and concentration of substantive capacity in headquarters focus area teams, not in Country Offices.

Recommendations

1. UNDP should ensure that practices follow principles. In addition to following policy and advocacy, UNDP needs to learn from good practices and replicate successes.
2. The Poverty–Environment Initiative represents good practice and should be scaled up to provide a model of how UNDP does business at the country level. It should also be used as a model for working together with UNEP and other agencies.
3. UNDP should provide guidelines and create verifiable indicators to further integrate poverty reduction and environmental protection into other UNDP operations. It must also invest in developing staff capacity.

(Continued)

<i>Conclusions</i>	<i>Recommendations</i>
<p>4. UNDP efforts to integrate poverty alleviation and environmental protection programmes at country level depend on the interest of countries. All governments are committed to both poverty reduction and environmental sustainability. However, evidence suggests that many partner governments continue to believe there are major trade-offs between these goals. Given the wide variation in poverty and environment challenges faced by countries, UNDP can demonstrate how to minimize such trade-offs.</p> <p>5. UNDP is ideally situated to strengthen partnerships within the United Nations system to coordinate action on poverty alleviation and environmental protection.</p>	<p>4. UNDP must overcome the functional silos that prevent cooperation and integration between focus areas. Analysis of poverty and environment priorities should be incorporated into governance and crisis prevention and recovery, as well as gender support activities and vice versa.</p>
Source: UNDP (2010)	

As summarized in Box 11.2, the evaluation concluded that UNDP has made sporadic and patchy progress in the poverty–environment nexus; it recognizes that the issue has particular resonance for poor people and for its own operations (Conclusion 1). Consequently, UNDP should learn from the pockets of good practice at country, regional and global levels, build better communication and replication facilities (Conclusion 2) and spread these examples throughout the organization (Recommendation 1). One of UNDP’s main roles is to enthuse its country partners and other UN agencies via donor coordination to prioritize the poverty–environment nexus (Conclusions 4 and 5). The joint UNDP–UNEP PEI is a model of the poverty–environment nexus practice worth both replicating and disseminating more widely; it should be brought more fully into the mainstream of UNDP operations (Recommendation 2). As part of picking up on good practice, UNDP should set the lead in developing guidelines and indicators for the poverty–environment nexus, as well as building staff capacity to handle the complex of issues (Recommendation 3).

One of the evaluation's principal findings is that UNDP's own structural architecture, including its operational and financing mechanisms, is not suited to cross-disciplinary initiatives (Conclusion 3). The practice-area 'silos' are too big and their foundations too entrenched. A first step towards breaking the barriers would be to ensure that poverty–environment nexus issues are also included in governance, crisis prevention and gender strategies, approaches and projects (Recommendation 4). A further step would be to take the examples of good practice, identifying where individual staff took strong leadership for integrating poverty and environment – the role of 'champion' – and then implementing cross-disciplinary practice based on how the individual 'champion' managed to overcome practice-area 'silos'. However, looking to the sustainability of the poverty–environment nexus within the organization will necessarily involve fundamental structural reform, an issue rather bigger and more controversial than this evaluation was mandated to address.

The poverty–environment nexus will always be harder to implement than standard mono-focal approaches because it will not only be more complicated but also will require people from different disciplines to work together and share a similar vision of poverty reduction being positive for the environment and environmental rehabilitation as positive for poverty reduction. The vision includes having the appropriate strategies and the practical means to identify poverty and environment synergies – and conversely, to exclude activities where poverty and environment may be in conflict. This will require good leadership, the promotion of 'champions for the poverty–environment nexus' at all levels and the agency-wide dissemination of good practices – all of which the evaluation found, but not sufficiently consistently or intensively.

Notes

- 1 Prof. Michael Stocking passed away in 2018. This analysis and argumentation in this chapter remains valid and consequently has not been revised. However, the country-specific statistics have been updated to the extent relevant (J.I. Uitto, ed.).
- 2 For an example from Ghana, see Besley (1995).
- 3 PEI is jointly run by UNEP and UNDP; see PEI (2012).
- 4 For an example from Ghana, see Amanor (1999).
- 5 For example, UNDP takes the lead role in partner countries in the 'Delivering as One' concept initiated by Kofi Annan in 2005 designed to capitalize on the strengths and comparative advantages of the different members of the UN family.
- 6 See <http://web.undp.org/execbrd/undp-action-plan.shtml>.
- 7 The PEP is an informal network of development agencies, which seeks to improve the coordination of work on poverty reduction and the environment.
- 8 PEI was launched in 2005 and scaled up in 2007; see <https://www.unpei.org/>.
- 9 Helen Clark, UNDP Administrator, Statement to the UNDP/UNFPA Executive Board, 24 June 2010.
- 10 Country specific information from UNDP HDR website: <http://hdr.undp.org/en/data> and <http://hdr.undp.org/en/indicators/167106#> (accessed 30 June 2020).
- 11 Morocco still has no Poverty Reduction Strategy. Tackling rural and urban poverty does, however, appear as a priority in the African Development Bank's Country Strategy paper, 2007–2011, for the Kingdom of Morocco.

- 12 See <https://www.un.org/en/ga/deliveringasone/>.
- 13 See Vice President's Office, Development of Poverty–Environment Indicators Report, August 2006.
- 14 UNDP practice areas include environment and energy, inclusive growth and poverty reduction, democratic governance, crisis prevention and recovery, HIV health and development, capacity development and women's empowerment.
- 15 Taken from the Executive Summary of EO of UNDP (2010). More details are in the full evaluation report at <http://web.undp.org/evaluation/evaluations/thematic/pen.shtml>.
- 16 UNDP claims to set importance on learning from current practices. It has a Learning Resource Centre providing online training to staff and a Virtual Development Academy, for example.

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