Climate and Nature Learning Agenda

For the Strategic Impact Evaluation and Learning Programme

This document was prepared by Innovations for Poverty Action (IPA) and the Abdul Latif Jameel Poverty Action Lab (J-PAL) in 2026 for the Foreign, Commonwealth and Development Office's (FCDO) Strategic Impact Evaluation and Learning (SIEL) Programme. It is not an exhaustive review of all rigorous evidence on this topic but is limited in scope to emerging insights from impact evaluation studies that employ experimental or quasi-experimental designs and should be considered alongside other sources of evidence. The views expressed here do not necessarily reflect those of FCDO.

siel Strategic Impact Evaluation & Learning

Foreign, Commonwealth & Development Office

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J-PAL ABDUL LATIF JAMEEL POVERTY ACTION LAB

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Background

What is the Strategic Impact Evaluation and Learning programme?

The **Strategic Impact Evaluation and Learning (SIEL) programme** of the UK's Foreign, Commonwealth and Development Office (FCDO) is a six-year learning partnership between FCDO's Evaluation Unit, Innovations for Poverty Action (IPA), and the Abdul Latif Jameel Poverty Action Lab (J-PAL). Launched in 2024, SIEL is here to support your efforts to understand what programmes and policies are most effective in driving impact. SIEL provides funding, resources, and technical capacity to help you generate evidence-based insights through impact evaluations. All FCDO staff are eligible to apply for impact evaluation funding and support through SIEL via semi-annual calls for Expressions of Interest.

What is an impact evaluation?

Impact evaluations estimate intervention effectiveness by comparing outcomes of those (individuals, communities, schools, etc.) who participated in a programme against those who did not.

- For a brief overview of different impact evaluation methods, see this resource.
- For an introduction to randomised controlled trials (RCTs), a form of impact evaluation, see here.

What is a learning agenda?

SIEL Learning Agendas identify key evidence gaps in priority areas. This will guide evidence generation through the SIEL programme and other FCDO initiatives.[i]

The **Climate and Nature Agenda** is intended to guide future impact evaluations of FCDO initiatives and to target research to understudied areas with high potential to inform FCDO's work moving forward. The agenda is not an exhaustive list of evidence gaps, nor is it binding, but provides examples of the kinds of policy-relevant research questions that could be explored through SIEL and other FCDO-funded programmes. The agenda calls specific attention to questions that may be well suited for evaluation using (quasi-) experimental impact evaluation methods. To effectively answer many of the questions laid out below, a wide range of research and evaluation techniques could be employed that extend beyond the scope of SIEL.[ii]

[i] SIEL focuses on four strategic areas: humanitarian assistance, growth, climate and nature, and conflict and fragility, with migration, gender, and technology as cross-cutting themes. This learning agenda can also be used to guide evidence-generating activity beyond impact evaluation in those areas.

[ii] Given SIEL's focus on impact evaluations, the evidence cited in the 'emerging insights' boxes throughout this document primarily draw from (quasi-)experimental research.

How was the learning agenda created?

The agenda was produced through close consultations with FCDO staff, including members of FCDO's Energy, Climate and Environment Department, the Research and Evidence Directorate, and the Economics and Evaluation Directorate. It was informed by FCDO resources, including FCDO Best Buys Reports, FCDO Areas of Research Interest (2023), and FCDO's Review of Areas of Spend. It also draws on resources from IPA, J-PAL, the Intergovernmental Panel on Climate Change (IPCC), and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).

Who is the learning agenda for?

This learning agenda is intended to spur interest in impact evaluation and wider evidence generation among FCDO staff working on climate and nature programmes and policy, for example, climate and nature advisers, programme managers, and development directors. Whether you're looking to inform your programme design with robust evidence, enhance your evaluation skills, or collaborate with top researchers, SIEL offers the tools and support you need to drive meaningful change—on climate and nature and other strategic priority areas. SIEL is open to those who want to evaluate initiatives at the design stage, or initiatives which have already been completed and robustly evaluated, where there is interest in uncovering the long-term impact.

SIEL can help you generate the evidence you need

To fill these priority evidence gaps, SIEL is partnering with FCDO teams to provide funding and training for a range of evaluation methodologies, such as:

- **Quantitative impact evaluations:** These determine the causal impact and cost-effectiveness of interventions by comparing a treatment to a control group, generating high-confidence insights.
- **Nimble evaluations:** Quick, cost-effective RCTs that generally focus on outputs and shorter-term outcomes, helping to identify what's working and adapt interventions in real time to improve effectiveness.
- **Pilot studies:** Small-scale projects that explore new ideas or evaluate interventions on a smaller scale before full implementation.
- **Adaptive management support:** Get ongoing support to adapt and improve your programmes based on real-time findings.

Why apply now? SIEL offers a unique opportunity to:

- Secure funding and support for timely and strategic evaluations
- Access hands-on guidance from experts (IPA, J-PAL, and others)
- Help your team generate and use evidence that matters

For more information, visit our website or contact the SIEL Help Desk. We are eager to help you think through evaluation opportunities.

Why focus on climate and nature?

The importance of tackling climate change and nature loss

The climate and environmental crises pose existential threats to global stability, economic development, and human well-being. The past five years have seen record-breaking temperatures, escalating biodiversity loss, and an increase in extreme weather events that disrupt lives and livelihoods worldwide.[1] Climate change is not only an environmental challenge but also a driver of poverty, food insecurity, migration, and conflict, disproportionately affecting the most vulnerable communities. Meanwhile, nature's degradation—driven by deforestation, land conversion, and pollution—threatens the very ecosystems that sustain economies, agriculture, and public health.[2,3] Without urgent action, these interconnected crises will undermine global development efforts, exacerbate inequalities, and threaten progress toward the Sustainable Development Goals (SDGs).

As underscored in the UK's 2030 Strategic Framework for International Climate and Nature Action,[4] transformative global action is needed to address the interlinked and existential challenges of climate and nature. Impact evaluations can help identify the most effective interventions, ensuring that climate and nature strategies are grounded in robust evidence. By building a stronger evidence base on "what works" in climate mitigation, adaptation, and nature conservation, FCDO can better navigate these complex challenges. Strengthening this knowledge base is essential to achieving a world where communities are climate-resilient, ecosystems are protected, and sustainable development and growth are secured.

Critical evidence gaps must be addressed

Climate and nature is a broad, intersectoral set of themes encompassing diverse issues, outcomes, and approaches. Nearly all areas of FCDO's work can incorporate a climate or environmental perspective, underscoring the need for targeted evidence to advance this agenda.

This learning agenda organises sample research questions into three key themes:

01 Adaptation

02 Mitigation

03 Nature

While this structure helps delineate evidence needs for each objective individually, it is worth noting that climate and nature challenges rarely exist in isolation—solutions in one area often ripple across others. For example, when restoring mangroves to restore ecosystem services, the same intervention can also achieve carbon sequestration and increase resilience to coastal flooding.

Addressing adaptation, mitigation, and nature separately can miss opportunities for co-benefits or overlook unintended consequences. A range of cross-cutting questions exist on how to help bridge these silos and identify win-wins, trade-offs, and system-wide impacts. Beyond co-benefits between the three themes, it is equally important to explore how programmes and research can align climate and nature goals with international development objectives, including poverty reduction and inclusive development.

Evidence gaps

01 Adaptation

Low-income countries and populations are disproportionately affected by the impact of climate change even though they are not the largest emitters.[5] While there is robust evidence on poverty-reduction interventions that tackle some sources of vulnerability, less is known about how these and other approaches may reduce the impacts of climate hazards and strengthen adaptive capacity. Further evidence is also needed on what additional measures are required to adapt to climate change and which are the most cost-effective means to achieving this. In this context, example priority evaluation questions for this section have been categorised into three subthemes. These include the effectiveness of climate adaptation interventions, the resilience benefits of general development programmes, and adaptation needs in food system sectors that are critical for vulnerable households in low- and middle-income countries (LMICs).

1.1 Impacts and design improvements of climate adaptation and resilience interventions

- How can early warning systems (EWS) and disaster preparedness plans be best designed and communicated to improve household preparedness to climate shocks?
- In what contexts does involving local communities and subnational governments in identifying and implementing their adaptation needs increase effectiveness, efficiency, and the value for money of these strategies? Which adaptation approaches are most effective when implemented with local communities?
- What are the impacts of nature-based solutions (NBS), such as conservation and restoration of ecosystems (e.g., forests, mangroves, coral reefs), on reducing the vulnerability of communities to natural hazards? Can these benefits be used to incentivise additional conservation and restoration?
- How can infrastructure, technology, and regulation be used to protect outdoor workers from extreme heat? How can they be used to reduce risks from extreme heat indoors? What are the impacts on productivity, health, and other outcomes?
- How can we support and incentivise local and provincial governments to invest in climate-resilient infrastructure (particularly water, transport, and energy) to reduce their vulnerability to shocks?
- What are the local effects of adaptation interventions on within-country climate migration and displacement? In contexts affected by conflict or crisis, can climate adaptation strategies help reduce the risks of future conflict? How can climate resilience gains be maintained in the face of conflict and volatility?

1.2 Impact of development interventions on vulnerability to climate change and natural hazards

- To what extent do non-climate-targeted development and poverty-reduction programmes (e.g., cash transfers, economic diversification) reduce the vulnerability of low-income populations to climate change and natural hazards?
- In what contexts are specific adaptation measures (e.g. climate-smart agriculture (CSA), water management systems, EWS) needed to reduce climate vulnerability? Are these complements or substitutes for non-climate-targeted programmes aiming to reduce poverty?
- Under what conditions do anticipatory cash transfers and social assistance outperform post-shock responses in helping households recover from climate shocks? What additional impact can improved weather forecasts, effective communication mechanisms, and digital or mobile payments bring?
- What types and features of financial products and services can help vulnerable households build resilience and recover more quickly in the face of climate shocks?
- How can education interventions help build the long-term skills and knowledge needed to adapt to climate change?
- Do infrastructure investments improve connectivity to vulnerable communities and enhance their resilience to climate shocks? Are there trade-offs between optimising infrastructure for climate resilience versus accelerating general infrastructure expansion?

1.3 Climate-resilient food systems

- What types of approaches are most effective in helping farmers and fishers increase climate resilience while improving productivity, incomes, and food security, particularly in the long term?
- Do agricultural development interventions that improve productivity (e.g. subsidy schemes) affect long-term adaptative capacity to climate change? How can programmes be designed to avoid maladaptation?[iii]
- What are the productivity and welfare impacts of CSA strategies and technologies when adopted?[iv] How do these strategies support the resilience of producers to different intensities and frequencies of natural hazards? What are the complementary impacts of bundles of these strategies?
- What cost-effective strategies can increase the adoption of CSA practices and technologies among vulnerable farmers, particularly at market rates? What are the barriers to adoption?
- Are there complementary effects of social assistance programmes and CSA technologies and practices to support farmers' food security and incomes during climate shocks and lean seasons? How can they be combined optimally for cost-effectiveness?
- How can collaborative strategies across the value chain (e.g., shared EWS, flexible supplier-retailer agreements) help smallholder farmers and low-income consumers cope with climate-related disruptions, and how do these approaches compare to resilience interventions focused only on individual producers?

[iii] Maladaptation refers to actions taken to cope with climate change that end up increasing vulnerability rather than reducing it.

[iv] For example, use of drought-resistant seeds, rainwater harvesting, agroforestry, management of pests and disease, regenerative practices, and irrigation.

Emerging insights snapshot: Lessons from recent impact evaluations[v]

Early warning systems (EWS)

There is a strong growing body of evidence from impact evaluations that **accurate weather forecasts and EWS—tools that detect incoming weather hazards and provide community alerts—can enhance disaster preparedness**, help businesses mitigate revenue loss, improve public health, and alleviate food insecurity and crop devastation across various hazards, including droughts, floods, and extreme heat.[6–12] However, a significant barrier to the effectiveness of EWS is limited uptake, often due to unfamiliarity with information systems and inadequate information dissemination.[6,7] To overcome these challenges, highly localised and context-specific messaging can enhance the uptake and effectiveness of EWS.[8–10] For example, a randomised evaluation in India found that timely and localised weather forecasts provided to farmers reduced risks to their assets and increased welfare.[13] The existing evidence on EWS services is specific to the region, type of natural hazard, and institutional capabilities of the warning system provider.[7] More evidence is needed on the long-term impacts of EWS and on identifying adaptable approaches to inform broader climate adaptation strategies.

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Anticipatory cash transfers and emergency loans

A promising but still limited body of evidence suggests that **financial tools, such as anticipatory cash transfers and emergency loans, can expedite recovery from extreme weather events** by reducing food insecurity, preserving assets, and mitigating economic downturns.[14–18] An impact evaluation in Bangladesh found that households receiving anticipatory cash transfers were less likely to reduce consumption and more likely to keep their animals and belongings safe and alive during and after a shock.[19] Randomised evaluations in Nepal and Niger found that delivering cash transfers before climate shocks led to better food security and improved psychological well-being than traditional humanitarian aid delivered after the event.[20,21] A quasi-experimental evaluation in Kenya showed that emergency loans were primarily used for basic consumption needs, providing immediate relief to affected households.[22] Further research is needed to establish the long-term impacts and scalability of anticipatory cash transfers and emergency loans in diverse climatic and socioeconomic contexts.

[v] The evidence cited in these emerging insights tables is not meant to be an exhaustive review of the literature on these topics but rather a snapshot of recent lessons from primarily experimental and quasi-experimental literature to showcase the types of evidence impact evaluations can help generate and foster inspiration for the type of research that may be possible through SIEL. These insights should not be viewed in isolation from the broader literature on these topics.

Emerging insights snapshot: Lessons from recent impact evaluations

Weather index insurance (WII)

Insurance has the potential to protect small-scale farmers from adverse weather events. **In practice, take-up rates for WII are often low, largely due to low trust in the service, inability to pay for the insurance upfront, and the abstract nature of index payouts.**[23–29] When innovations to insurance lead to increased take-up, insurance is effective in helping farmers maintain income and make bolder production choices during weather-related shocks.[30] However, in some cases, farmers discontinue take-up after a season without shocks.[31] Strategies to overcome farmers' credit constraints had mixed results in increasing farmers' uptake of insurance.[23,27,32–34] To address this, evidence suggests that strengthening credit literacy programmes and support systems, overcoming barriers to trust, and paying at harvest can improve take-up rates.[26,28,35–38] Bundling WII with complementary tools such as access to credit and improved seed varieties can enhance farmers' resilience to weather shocks, reduce insurance costs, and encourage more farmer enrollment.[37,39] These programmes can help farmers maintain consumption levels and invest in adaptive strategies, particularly in areas with limited non-agricultural income opportunities, though evidence on their long-term and scale-up impact is still emerging.[39]

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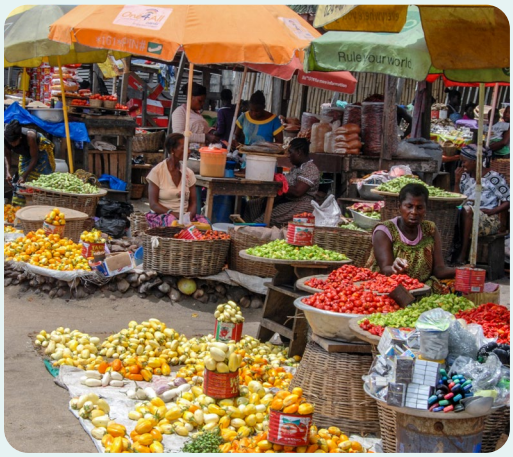
Access to agricultural markets

There is strong evidence that **when small-scale farmers can better access agricultural markets—through improved transport infrastructure, contract farming, connections to traders and better post-harvest storage options—they increase productivity and sales.**[40–46] These improvements help farmers improve their allocation of resources, diversify crops and increase crop yields, and reduce exposure to price volatility.[40,42,43,45,47] However, a quasi-experimental evaluation in Ghana found that increased access to agricultural markets led to a substantial increase in deforestation.[48] Additionally, these market-focused strategies often fall short if there is weak coordination or unstable pricing. Without reliable markets or incentives, farmers may hesitate to invest in better-quality inputs and improve productivity.[49–53]



Ghana, Margus Vilbas/Shutterstock.com, 2015

Evidence gaps

02 Mitigation[vi]

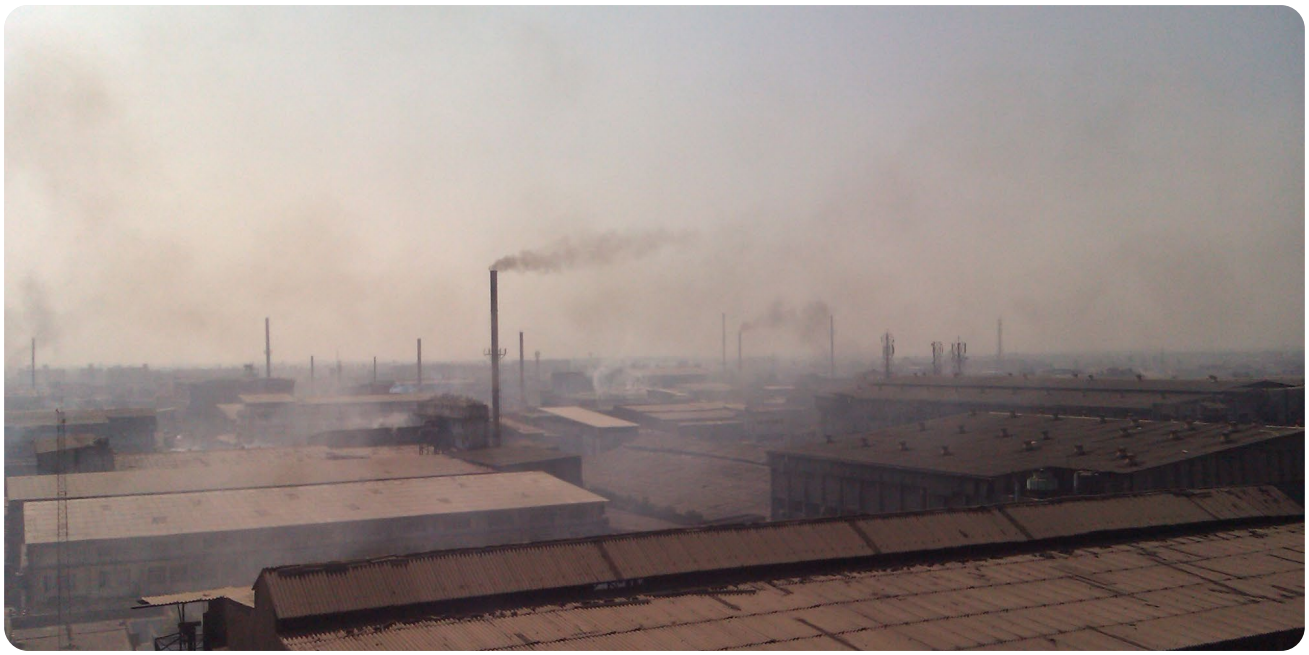
Reducing greenhouse gas emissions is essential to mitigating climate change and limiting global temperature rise, with implications for economic stability, energy security, and sustainable development. The IPCC underscores the urgency of deep emissions cuts, but achieving this requires overcoming financial and regulatory barriers while ensuring a just transition.[vii,5,4] In addition to reducing greenhouse gas emissions, mitigation strategies often deliver co-benefits such as improved public health, energy access, and poverty reduction, enhancing their overall value for sustainable development.[55,56] Key challenges to reducing emissions include mobilising private and public finance and designing cost-effective policies that balance emissions reductions with broader development benefits, such as energy access and poverty alleviation. At the same time, Official Development Assistance (ODA) can support LMICs to adopt existing technologies that would help them grow their economies and develop higher standards of living without locking in high-emissions activities, infrastructure, and energy.

2.1 Expanding the adoption of clean energy and technologies with co-benefits[vivii]

- How can we increase the adoption of clean energy (e.g., clean cooking through improved stoves or cleaner fuel alternatives, electric mobility, solar panels) at the household level? What are the necessary conditions to promote adoption in place of high-emission alternatives? As incomes increase, how does the adoption of these technologies change?
- What mechanisms can be put in place to support maintenance and sustained use of these technologies once they are installed?
- What policies can be implemented to encourage the replacement of old, inefficient, and polluting technologies (e.g., vehicles, cooling systems) in favour of more efficient alternatives?
- What are the economic, productivity, education, and health benefits of increasing energy access through decentralised renewable energy technologies (e.g., solar home systems, mini-grids)? How do benefits vary by technology and scale of deployment, and how do they compare to fossil fuel alternatives (e.g., health outcomes or costs)?
- How can behavioural and technological solutions help industries improve energy efficiency and reduce pollution and emissions while maintaining productivity and growth?

[vi] Discussion of strategies to increase conservation and restoration of carbon in ecosystems are included in the next section on Nature.

[vii] A set of principles, processes, and practices that aim to ensure that no people, workers, places, sectors, countries, or regions are left behind in the transition from a high- to low-carbon economy.



India, Yuanjian Li/J-PAL

2.2 Financing and regulatory mechanisms to accelerate the clean transition

- How do different subsidy structures affect the adoption of more sustainable practices and technologies?
- How can regulatory and market-based systems, like emissions trading, help reduce pollution while keeping costs manageable for businesses in growing economies? How can effective, transparent, and equitable carbon trading schemes support energy transition while supporting economic development?
- How can carbon credit systems be designed to ensure that credits represent genuine, new reductions in emissions and that the same reduction is not counted or sold more than once?
- What types of financial incentives (e.g., risk guarantees, loans) most effectively increase private sector investment in mitigation activities?
- Does public-private cofinancing lead to greater overall investment in mitigation activities and under what conditions? What is the additionality of public funding in such cases?

2.3 Supporting a just transition

- Which interventions can support low-income populations in adopting clean energy technologies while also ensuring they experience the co-benefits, such as improved air quality, better health, and increased economic opportunities?
- How do different compensation and communication strategies help vulnerable populations manage negative impacts from fuel and agriculture subsidy reforms? Do these strategies increase support for the reforms and increase the likelihood of their success?
- What are the impacts of labour interventions (e.g., re-skilling, social protection, job-search support) on the reinsertion of high-emitting sectors' workers into new green jobs?
- What is the impact of participatory mechanisms (e.g., consultation processes, local involvement, locally driven initiatives) in the effectiveness, efficiency, and inclusiveness of emission reduction policies?

Emerging insights snapshot: Lessons from recent impact evaluations

Clean cooking and fuels

Emerging experimental and quasi-experimental evidence indicates that clean cooking and fuels—such as improved biomass stoves, liquefied petroleum gas, and electric models—can reduce emissions and harmful household air pollution.[57–60] **When taken up and maintained, clean cooking technologies not only lower respiratory health risks but also improve lung function and sleep quality, cut fuel use, and decrease exposure to pollutants in kitchens and homes.[58,59,61] However, real-world impact often falls short of potential due to stove design limitations, continued reliance on traditional fuels, financial constraints, and other contextual factors.**[64–67] These hurdles can lead to limited uptake, ongoing use of traditional stoves and fuel, and technical malfunctions that undermine the health and environmental gains.[59,64–67] When interventions have addressed some of these common barriers, such as lack of cash up front, lack of information, and misalignment with local needs, the demand for clean cooking and fuels has increased.[69–71] In addition, there is limited but suggestive evidence that clean fuels help displace charcoal or wood use, contributing to reduced deforestation.[62,63]

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Emissions trading schemes (ETS)

Emerging evidence suggests that **ETS can be a cost-effective policy instrument for reducing greenhouse gases, including CO2 and sulphur dioxide.**[72–74] A randomised evaluation of the world's first cap-and-trade market for particulate pollution (an innovative ETS) in India found that there was a 20–30 percent reduction in particulate emissions among factories in the trading scheme versus those under standard regulation.[75] This study showed that ETS can be effective for environmental policy even in contexts of limited government capacity to monitor and enforce compliance. In addition, it demonstrated that randomised evaluations can be designed to rigorously assess the real-world impact of complex environmental policies such as ETS. Complementary quasi-experimental evidence finds that the effectiveness of ETS is highly sensitive to scheme design, implementation quality, and local context.[76,77] National characteristics, such as geographic factors, financial market maturity, and GDP growth, influence ETS effectiveness.[72,78,79]

Evidence gaps

03 Nature

The alarming rate of ecosystem and biodiversity loss underscores the critical importance of nature for human well-being, particularly for vulnerable communities. The IPBES Global Assessment Report highlights that human activities have significantly altered most of the planet's ecosystems, with approximately one million species threatened by extinction.[80] Despite these challenges, nature remains essential for supporting livelihoods, health, and cultural integrity, especially for low-income and Indigenous communities. While there is a growing understanding of the need to protect and restore ecosystems, open questions remain regarding the most impactful and cost-effective strategies to achieve this, how to design these for scalability, and which offer clear win-win outcomes that simultaneously strengthen ecosystem health and support vulnerable communities. Addressing these gaps requires rigorous research to identify impactful interventions that can be scaled up quickly, aligning with global initiatives like the Kunming-Montreal Global Biodiversity Framework.[81] Additionally, understanding the environmental impacts of development programmes is crucial for achieving synergies between environmental conservation and development.

3.1 Impact and improving the cost-effectiveness of interventions to protect nature

- What are the impacts of different conservation strategies (e.g., payments for ecosystem services (PES), agroforestry, and community-based management of forests and natural resources) on environmental and welfare outcomes? Which achieve the largest impacts and are the most cost-effective?
- How do different design and targeting approaches (e.g., incentive structure,[viii] community engagement) affect trade-offs between impact, cost, equity, and scalability in conservation strategies?
- What role do land tenure rights play in mediating the impact of conservation strategies? In what contexts do they incentivise conservation on their own?
- How do different incentives for community-led conservation efforts impact biodiversity preservation and local welfare? Do the effects fade out once incentives are removed?
- How effective are subsidy reforms in transitioning to activities with lower impacts on nature, and what are the impacts on biodiversity and local livelihoods?
- How effective are natural regeneration versus assisted restoration efforts in improving ecosystem health, carbon sequestration, and supporting local livelihoods? How can we reduce the costs of restoration initiatives to improve scaling potential?

[viii] Incentive structures refer to the specific way that rewards, payments, or benefits are designed and delivered within conservation programs to motivate desired behaviours.

3.2 Models for supporting conservation and environmental management

- Which public sector finance models (e.g., earmarking unrelated tax, pay-for-results, fee-based, carbon credits) are most effective in supporting long-term sustainable environmental management?
- What role can technology like remote sensing and sensors play in enhancing the effectiveness of compliance and enforcement in conservation and restoration efforts? How can we increase the adoption of these technologies among implementing organisations?
- How can we incentivise private sector participation in PES and other conservation schemes, and how and in what contexts is this effective and more sustainable in the long term?
- Are programmes issuing carbon or biodiversity credits helping conserve ecosystems and biodiversity and benefiting local communities? Can carbon and biodiversity credits support conservation projects and their financial sustainability?

Uganda, Alex Coutts/IPA

3.3 Reducing environmental impacts of food systems while protecting food security and livelihoods

- What are the environmental impacts of poverty-reduction interventions related to food systems (e.g., livestock subsidies, crop insurance)? How do these affect emissions, resilience, and the long-term capacity of ecosystems to sustain crop, livestock, and fisheries productivity?
- What interventions are most effective in preventing deforestation or natural resource degradation caused by agricultural expansion (including livestock) while still increasing productivity, particularly in low-income countries?
- What interventions can increase the sustainability of aquaculture businesses? How do they impact the sustainability of fisheries nearby and fishers' profits and incomes?
- What are the impacts of social and environmentally friendly certifications (e.g., "deforestation-free," "sustainable fishing," "fair trade schemes") on the environment, the integration of farmers/fishers into commercial value chains, and the profits and incomes of low-income producers? Are additional measures needed so that low-income producers may benefit from them (e.g., reach new markets)?
- What interventions are the most effective in reducing food waste in agricultural production and post-production, and how do these interventions affect the sustainability of these activities and local incomes?
- How do digital and traditional extension services compare in promoting sustainable practices at scale, and how do their impacts vary by farmer characteristics and technological literacy?

Emerging insights snapshot: Lessons from recent impact evaluations

Payments for ecosystem services (PES)

Emerging evidence suggests that when well-designed and properly run, **PES can be a cost-effective, market-based approach that improves environmental outcomes without harming communities' livelihoods.**[82–85] For example, in experimental studies from Western Uganda and Mexico, PES reduced deforestation, and in Mexico payments generated small but positive poverty-alleviation effects.[83,86,87] However, programme design features, such as targeting, are critical for achieving these outcomes since a common challenge is ensuring that payments incentivise conservation that would not have occurred without the payments.[84] A randomised evaluation in Mexico found that varying contract design to require that landowners enrol all their land as opposed to just the portion they preferred increased cost-effectiveness by more than four times.[88] Additionally, evidence suggests inherent trade-offs in pursuing dual objectives: environmental gains tend to be higher where poverty is low, while household economic gains are higher where deforestation risk is low, illustrating the difficulty of meeting multiple policy goals with a single approach.[89]

Uganda, Megan Kearns, 2017

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Environmental impacts of poverty-alleviation cash transfer programmes

Studies that measured the impacts of **poverty-focused conditional cash transfer (CCT) programmes on environmental indicators have found mixed results**. For example, a quasi-experimental study in Indonesia showed that CCTs can reduce deforestation by smoothing consumption during shocks and providing households with stable incomes, reducing the need to clear forests.[90] However, another study showed that a CCT increased consumption of carbon-intensive products; when localities did not have good access to markets, it translated to an increase in local deforestation.[91] Further evidence is needed to understand these impact pathways and the policies that can address them.

Emerging insights snapshot: Lessons from recent impact evaluations

Formalising and securing land tenure rights for local (forest) communities

Theory suggests that **securing land rights should incentivise long-term stewardship, and experimental evidence indicates reduced forest loss; however, the evidence base remains incomplete and context dependent**.[92–94] In some cases, formalised tenure has been associated with reduced deforestation and improved resource governance.[93,95] For example, a randomised evaluation in Indonesia found that land tenure rights and similar livelihood-oriented methods bolstered well-being through improvements in community autonomy.[90] However, several studies found no effects on forest protection from titling alone, especially when markets were remote and other enforcement mechanisms were absent, suggesting that the effectiveness of this intervention may be dependent on institutional support and complementary policies.[92,96,97] To ensure both equity and longevity, formalising and securing land tenure should be pursued alongside interventions such as enforcement support and sustainable livelihood opportunities.[98]

Indonesia, Shutterstock.com, 2025

Strategic Impact Evaluation and Learning (SIEL)

Myanmar, IPA, 2022

What is SIEL?

The FCDO's Strategic Impact Evaluation and Learning (SIEL) programme is a partnership between FCDO's Evaluation Unit (EvU), Innovations for Poverty Action (IPA), and the Abdul Latif Jameel Poverty Action Lab (J-PAL). SIEL is here to build our understanding of what programmes and policies are most effective in driving impact. SIEL offers support—including funding, resources, and technical support—to help FCDO teams generate evidence that informs programme decisions and 'what works' to maximise the impact of FCDO activities.

SIEL aims to close knowledge gaps in four strategic priority areas: growth, humanitarian assistance, climate and nature, and conflict and fragility. Cross-cutting themes include women and girls, technology and innovation, and migration. All FCDO staff are eligible to apply for impact evaluation funding and support through SIEL via semi-annual calls for Expressions of Interest.

What SIEL offers

SIEL provides a range of opportunities and resources to support your work and professional development.

Funding and support for evaluations

SIEL focusses on filling a gap in providing funding for evaluations which employ experimental or quasi-experimental techniques to answer questions about impact:

- **Quantitative impact evaluations:** Access funding for high-quality impact evaluations, including randomised controlled trials, long-term follow-ups, and nimble evaluations.
- **Pilot studies:** Test new ideas or assess interventions on a smaller scale before full implementation.
- **Adaptive management support:** Get ongoing support to refine and improve your programmes based on real-time findings.
- **Matchmaking with experts:** Connect with leading researchers from IPA and J-PAL to collaborate on impactful evaluations tailored to your programme's needs.

Training and capacity strengthening

» SIEL offers training on managing, commissioning, and understanding impact evaluations.

» Open to all staff and free of costs, the training sessions are designed to help you understand how to use evidence to support delivery of your priorities.

Identifying, sharing, and using evidence

» **SIEL learning agendas** identify key evidence gaps in the four strategic priority areas to spark rigorous impact evaluations of FCDO interventions. The agendas intend to guide future evaluation of FCDO interventions and target evaluations to understudied areas with high potential to inform FCDO's work moving forward.

» **Research uptake:** SIEL will support the wide dissemination of findings across FCDO and beyond. All staff will have access to key insights from all evaluations undertaken, including through webinars, presentations, and other resources. This will help strengthen knowledge management and organisational learning and deliver more impactful and sustainable programmes and policies.

GET INVOLVED

SIEL could be relevant to you if any of these apply:

» You are looking to start a new initiative or generate evidence about a past initiative.

» You would like to learn 'what works', improve your programme, and/or enhance your evaluation skills.

» You are working in one of SIEL's priority areas.

SIEL offers:

» A partnership approach, helping you answer priority learning questions with the support of world-class researchers.

» Training and support from leading organisations in the impact evaluation field.

For more information, visit our SIEL website or contact the SIEL Help Desk with any questions.

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Endnotes

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