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LEARNING PAPER SUMMARY:

Behavioural science, decision making and climate investments

The IEU's Learning Paper Series fosters learning and discussion of climate evaluation, finance, and low-emission and climate-resilient development pathways.This 2-page summary provides an overview of the IEU's learning paper on behavioural science, decision-making and climate investments.[1]

Background

Researchers are increasingly using behavioural science to detect discrepancies between models of human economic behaviour and human decision-making. This is true of social issues, including environmental conservation. Sitting at the nexus of several disciplines, behavioural science can play an important role in improving public policy. However, its application to climate actions is relatively nascent.

The IEU learning paper summarized in this brief seeks to link climate interventions with behavioural science as a practical, affordable and rewarding route for increasing the last mile effectiveness of climate actions.

Approach

Part one of the learning paper offers a theoretical background to behavioural science and how it enhances adaptation interventions in developing countries. The section examines biases, heuristics and decision theory. **Part two** offers a granular view on integrating behavioural insights into four Green Climate Fund (GCF) projects.

A theoretical background

Biases and heuristics describe how humans deviate from rational decision-making. A **bias** is a systematic error in thinking due to self-interest or incorrectly processed in-formation. **Heuristics** are about making shortcut decisions that are "near enough is good enough". Both generally try to replace a complex question with an easy one.

The behavioural approach posits human behaviour influences decision-making. Decision theory consists of: *Judgments*, which predict outcomes according to different choices; *preferences*, which weigh the substance of choices based on their desirability; and *choices*, which blends judgments and preferences to make decisions. A person's tolerance for risk can impact all three.

Descriptive decision theory explains departures from an assumed logical model of behaviour and may uncover consistent decision-making biases. In contrast, prescriptive methods leverage these biases to assist in better decision-making. Decision theory helps us understand the motivations behind (in)action and enhances our decision-making ability.

Applying behavioural insights in eight GCF projects

GCF projects engage a range of stakeholders. Many emphasize training, risk management and long-term intervention delivery. Balancing these challenging aspects can affect decisions, as stakeholders must deal with their own and other's contrasting behaviours. The learning paper examines a range of current GCF projects and highlights key behavioural barriers, as listed in Box 1.

SAP007: Integrated climate risk management for food security and livelihoods in Zimbabwe

A key SAP007 activity is developing an insurance product with vulnerable farmers. But, as the full report notes, beneficiaries may suffer **cognitive overload** in under-standing the product during times of stress. Further, farmers may feel **loss averse** if they cannot rationalize spending cash on insurance even when farm productivity stagnates. The paper advises using a short **questionnaire that captures the risk and prioritization profile** of different financial decisions, potential consumers and how they may react to the insurance. To increase resilience, the paper recommends disseminating key information via

[1] The citation for the IEU learning paper discussed in this brief is: Emma De Roy, Chaning Jang, Cornelius Krüger, Mathilde Lugger, Fatima Moussas, Wairimu Muthike, Alina Ojha, Nathanial Peterson, Martin Prowse, Dhwani Yagnaraman and Jyotsna Puri (2021). Behavioural science, decision making and climate investments. IEU learning paper, May 2021. Independent Evaluation Unit, Green Climate Fund. Songdo, South Korea.

appropriate mediums, from national and local authorities to households.

FP116: Carbon sequestration through climate investment in forests and rangelands in the Kyrgyz Republic Seminars are key to this forest management project. The learning paper notes that these seminars may cause **cognitive overload** among participants, leading to poor understanding and bad decisions. It suggests training content should focus on how and where the information will apply to the project's stakeholders. Timing is also important, as it must encourage concentration and learning. Similarly, the trainer should be suitable for the audience. It is important to consider the **intention-action gap at the project's completion**: the difference what people say they will do and what they actually do. Monitoring should continue after the project ends to ensure sustainability. The learning paper suggests communities identify leaders to support the project's behavioural changes.

FP048: Climate smart agriculture risk-sharing facility for micro-, small-, and medium-sized enterprises

This proposed risk-sharing facility enhances crop resilience through improved agricultural technologies such as irrigation systems and resistant species. These adaptation decisions are influenced by people's perception of climate change and farm, household, socioeconomic, geographical, and institutional factors. **Self-efficacy** is a strong predictor of pro-environmental behaviour. Thus, an early understanding of farmers' adaptation preferences and the factors influencing their choices is critical, including understanding social norms that may be influencing local stakeholders. For example, if others in the neighbourhood have been found ineligible, other farmers may mistakenly conclude they are, too. Or they may be less inclined to seek project assistance when no one else is seeking it.

SAP010: Multi-hazard impact-based forecasting and early warning system for the Philippines

Central to this early warning system project is broadcasting clear and actionable information on upcoming climate-induced shocks. To reduce socioeconomic impacts, the information must reach all stakeholders and be lucid enough to prompt action. Before this can happen, the project must first understand risk. When it comes to risk, people are **loss averse**. Yet, they are simultaneously influenced by the availability of **heuristic, shortcut decisions** that lead them to neglect the threat of a flood or cyclone they consider below a certain risk level. Perceptions of risk influence how seriously users treat hazard warnings. According to the learning paper, after accurately understanding people's perception of risk and how this perception affects decisions, **the project should establish an effective communication system.** The system implemented must appeal to audiences ranging from local authorities to final-mile communities. Because communities are central to this project, transforming an individual's response and guiding them to a certain outcome could be assisted by the presence of community champions.

The preceding cases highlight a range of entry points for behavioural interventions in existing GCF projects. **SAP007** highlights the need for short, formative research to understand how consumers may react to a new insurance product, the distribution channels for information, and the approach that works best. **FP116** warns of the risk of cognitive overload during training sessions while emphasizing the timing and location of training events. It also flags the vital role of the trainer. **FP048** reaffirms the importance of quickly understanding farmers' preferences and motivations while highlighting the importance of understanding social norms for the uptake of interventions. **SAP010** highlights the need to understand end users' risk profiles, the value of testing early warning communication systems and the importance of community champions in encouraging beneficiary engagement.

Box 1. Seven key behavioural barriers

Intention-action gap: the difference between what people say they want to do and what they do.

Present bias: the inclination to prefer a smaller present reward to a larger later reward

Loss aversion: the tendency to weigh potential greater losses more than equivalent potential gains, e.g. focusing more on an investment's risks, not its potential gains

Self-efficacy and identity: the belief in oneself in reaching a given level of achievement (self-efficacy). The sense of one's physical, psychological, social and ethnic difference to others (identity)

Groupthink: the situation where a desire for group consensus overrides people's desire to present alternatives, critique a position, or express an unpopular opinion

Cognitive overload: the excessive presence of information or tasks for learners to handle simultaneously

Intrinsic and extrinsic motivation: intrinsic motivation is taking an action purely for its sake; extrinsic motivation refers to taking an action to achieve a specific action

Conclusion

Increasing the GCF projects' likelihood of success involves more than understanding beneficiary behaviour. It requires understanding the range of actors implementing projects and the projects' context. Projects teams need to limit biases, judgment errors, close representational gaps and encourage learning to ensure GCF projects succeed.