Innovation Process Tracing Assessment: Methodological Approach and Guiding Principles

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Introduction

The "Rethinking Food Markets and Value Chains for Inclusion and Sustainability" Initiative aims to provide evidence on what types of bundled innovations, incentive structures, and policies are most effective for creating more equitable sharing of income and employment opportunities in growing food markets while reducing the food sector's environmental footprint. The Initiative targets approximately 30,000 individuals across six geographical areas, focusing on four key innovation areas: vertical coordination models, product quality certification, digital logistics, and finance innovations, along with global knowledge assessment. The approach to evaluating the initiative's impact is based on a combination of theory-based methodologies, explicitly focusing on Process Tracing (PT) for the impact evaluation phase. The evaluation is designed to reflect on the success and learnings of the initiative while strengthening CGIAR's practice of theory-based methods such as PT and integrating innovative techniques like "causal hotspots" and Outcome Harvesting for more nuanced analysis.

At its core, this evaluation prioritizes and focuses on detailed case studies of selected innovation bundles. This distinctive feature allows for an in-depth analysis of significant outcomes within the initiative. The selection process is guided by the "causal hotspot" strategy for Contribution Analysis (CA) combined with Outcome Harvesting (OH), which helps identify key areas of impact prior to the PT application. The PT methodology is then rigorously applied to examine the plausibility of each innovation's contributions and the strength of supporting evidence. This provides valuable insights to scaling efforts and evidence-based decision-making.

PT is meant to trace causal mechanisms from the initial cause to the ultimate effect, mapping key events and actors while collecting specific evidence for each mechanism that resulted in the changes in the agency and actions of system actors when they are informed/influenced by research outputs, referred to as outcomes. Given its strength as a non-experimental impact evaluation method, PT serves as the preferred methodology for the impact assessment phase. To achieve casual attribution, PT involves three essential strategies: estimating the counterfactual, validating the consistency of evidence for causal relationships, and eliminating alternative explanations. This methodology is grounded in defining causal pathways that form the basis for identifying and testing causal links within the program.

PT as a meticulous method for uncovering the casual mechanism for underlying observed changes, use a step-wide process of tracing including contextualization, theory articulation, contribution claim formulation, evidence gathering, evidence testing, rival explanation assessment, and contribution claim revision. Its flexibility in data collection methods allows for a comprehensive approach, which may include desk-based research, document analysis, surveys, and interviews. The meticulously categorized evidence is instrumental in substantiating or refuting claims, which will be guided by a rubric to verify the strength of the evidence test. The four tests typically used are "straw-in-the-wind," "hoop tests", "smoking guns," and "doubly decisive". Straw-in-the-wind and smoking gun tests assess the relevance of evidence, while hoop and doubly decisive tests focus on its necessity for establishing causality. Straw-in-the-wind test suggests the possibility of a causal link but requires further evidence for confirmation and smoking gun provides strong evidence directly supporting the causal mechanism. Whereas the hoop tests focus on evidence that contradicts the hypothesized causal pathway. If the test fails, the expected disconfirming evidence isn't found, and it strengthens the case for the original hypothesis. The doubly decisive test as the strongest form of evidence fulfills both the straw-in-the-wind and hoop test criteria. Overall, these are designed to support evaluative judgments on probative value and confidence in the claims.

In summary, the application of this rigorous methodology ensures a comprehensive, and credible assessment of the initiative. It adheres to best practices in impact evaluation, considers multi-stakeholder perspectives, and focuses on behavior shifts. The overarching aim is to offer a well-informed basis for decision-making regarding the initiatives under examination and how the direct products of research, referred to as outputs, influenced the actions of system actors.

Process tracing key steps and counterfactual settings

Process tracing hinges on the concept of "probative value." This refers to how much evidence makes a particular explanation better or worse1. This is not merely a matter of the quantity of data (or observations). Evidence either counts in favour of or against a particular explanation. Evidence can either support or refute an explanation (contribution claim) with varying degree of strength i.e. weakly or convincingly. Weak evidence offers limited explanatory power. It does little to increase our confidence in a particular account/explanation. Strong proof, on the other hand, has significant explanatory power and is decisive because it provides a clear link between the intervention and the outcome. It makes alternative explanations highly unlikely. Furthermore, it is important to recognize the potential biases of different sources of evidence. Internal documents, for instance, are likely to have some degree of self-serving and confirmation biases. Governments and third parties' documents may also exhibit biases, reflecting their own narratives of change. Similarly, some stakeholders may provide socially desirable answers. Therefore, assessing source trustworthiness is crucial. See Figure 1 for the PT assessment.

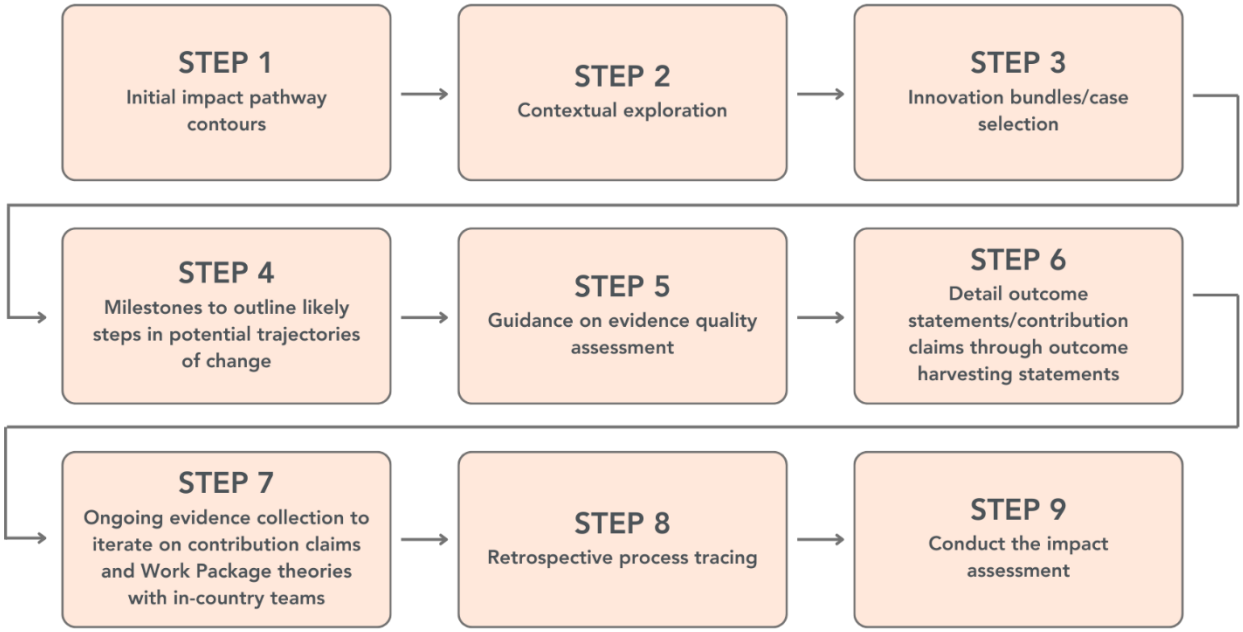

Figure 1. Steps for PT assessment

[1] Ribeiro, G. (2019). Relevance, probative value, and explanatory considerations. The International Journal of ReEvidence & Proof, 23(1–2), 107–113

Applying process tracing process: explanation and practical example

Step 1. Initial impact pathway contours

In the initial step, leveraging the Initiative and Work package-level theories of change as a roadmap is crucial. This is a foundational guide to understanding how potential outcome pathways are conceived and how different levels of initiative and work package theories of change may be connected. This step is about weaving a comprehensive narrative around how innovation scaling processes augment preceding efforts or meld innovations to suit the nuances of new contexts. Furthermore, this step explicitly identifies any new assumptions beyond those in the proposal. This enriches understanding of the evaluation and work package teams and prepares the groundwork for subsequent steps.

A Practical Example of Initial Impact Pathway Contours - Step 1

In the context of Step 1, a practical example relates to the 2-day stakeholder workshop organized by IFPRI and IWMI in Abuja, Nigeria, on December 12th and 13th, 2022.

1. **Workshop as a foundational design step**: IFPRI and IWMI's workshop in Abuja, Nigeria, played a pivotal role in laying the groundwork for the initiative in the country. It served as a crucial platform for stakeholders to engage in the conceptualization of innovation bundles. This aligns well with the essence of Step 1 in PT, where the emphasis is on using the Theory of Change (ToC) as a roadmap to forecast potential outcome pathways.
2. **Clarification of core concepts**: The workshop's focus on elucidating key concepts like innovations, scaling, and randomized control trials (RCTs) aligns with the step's objective of delineating and understanding meso-level theories as they interlink with specific work package theories. This knowledge dissemination is critical in setting the stage for stakeholders to effectively comprehend and engage with the initiative's objectives and methods.
3. **Meso-theory of evidence-based policy**: The emphasis on rigorous evidence influencing decision-making and scaling aligns with the stage's focus on detailing explicit assumptions beyond the proposal. Recognizing this emphasis on the logic and assumptions of "evidence-based policy" helps construct a general narrative around the potential scaling process and anticipates how such a narrative might influence the success of the innovations.
4. **Contextual relevance and historical insights**: The historical context of trialing similar technologies in Nigeria, albeit with less rigorous study designs, provides a practical example of how previous efforts may inform and shape current and future initiatives. This historical perspective ties in with Step 1, which involves understanding how innovations can be integrated into existing contexts or how they might augment previous efforts.
5. **Cumulative effects and prior efforts:** In other countries involved in the initiative, the narrative around the layering of previous efforts and the cumulative impact of innovations provides additional complexity to the ToC. This aspect underscores the need to weave a narrative that focuses on new interventions and acknowledges and integrates past and ongoing efforts.
6. **In summary,** the early activities and workshops conducted as part of the initiative have laid the groundwork for Step 1 of the PT process. These activities have helped to establish a clear foundational guide that aligns with the initiative's overall ToC and prepares for the detailed exploration of outcome pathways, vital for the subsequent steps in the PT approach.

Step 2. Contextual exploration

Building on the initiative's initial understanding, contextual exploration step delves deeper into the contextual nuances of innovation bundles. A series of in-depth country workshops is envisaged as platforms for extensive

dialogues to learn about contextual assumptions and key intermediary steps to outcomes. The interaction between theoretical assumptions and on-the-ground realities in diverse geographies is expected to enrich our contextual understanding, help us understand where the teams are in implementation, and contextualize the required conditions further to link innovation bundles with Work Package-level outcomes.

A Practical Example of Contextual exploration - Step 2

The workshops conducted with various Work Package teams from October to November 2023 were instrumental to Step 2, advancing the understanding of process tracing among the Work Package (WP) teams in the "Rethinking Food Markets" initiative. They offered a comprehensive view of the Process Tracing methodology, its integration with the initiative's ToC, and the pivotal role of outcome mapping and harvesting in defining potential outcomes prospectively while considering the contextual conditions. During these sessions, each team discussed potential outcomes and reviewed possible steps leading to these changes.

Moreover, the workshops facilitated an exchange of information by identifying partners and key assumptions while discussing the profile of each innovation and the anticipated intermediate outcomes. Teams shared evidence of progress thus far (e.g., landscape reports, journal articles, presentations), which is essential for contextualizing the innovation bundles within the specific conditions of each work package. This activity was instrumental in identifying and interpreting possible social, economic, and environmental features that characterize different geographies and how they affect innovation scaling. These initial exchanges established the pre-conditions to craft a more nuanced, evidence-based narrative that captures the linkages between outputs and outcomes.

Step 3. Innovation bundles/case selection

This step shifts to a pragmatic selection of innovation bundles/cases based on specific selection criteria that combine practical considerations with methodological requirements. This step sets the premise for the entire analysis, ensuring that the selected bundles are pertinent to the initiative's goals and align with the methodological framework designed for the analysis and other relevant theoretical considerations.

A Practical Example of Innovation bundles/case selection - Step 3

The selection of innovation bundles for PT application, as described in Step 3, required a nuanced approach to consider various aspects. For example, the readiness of each innovation for scaling was included, prioritizing those with a proven track record for wider application alongside the presence of evidence in support of the hypothesized efficacy. Innovations that are more likely to produce credible evidence at the outcome level within the proposed timeline were proposed.

Selection also considered the expected level of engagement from teams across work packages and whether they expressed sufficient interest and commitment, which is essential for a successful application of PT. The selection process also sought a regional balance, aiming to represent a diversity of value chains, contexts, and scaling partners across different countries and regions, with preference given to innovations backed by a variety of stakeholders, including government bodies, NGOs, and donors, ensuring a diverse set of pathways and networks. Finally, the project team's insights on the practicality and timeline of implementing the innovations were considered and the feasibility and timing of the manifestation of outcomes. Each parameter helped shape a methodical selection process attuned to the initiative's overarching goals.

The “Knowledge Platform for Inclusive and Sustainable Food Markets and Value Chains” (KISM) is summarized to show an example of the selected cases. KSIM is focused on the knowledge platform and engagement targeting relevant researchers, practitioners operating agri-food SMEs, policymakers, and farmers. The working session with the Innovation Bundle team members in March was more preliminary since this case study was not as far along as the others. However, it was productive and informative; more information by email and inputs to the master PT document is still needed from the KISM team.

While the team generates a lot of content and webinars for the platform, the level of users’ engagement needs to be addressed to maximize platform adoption. A key challenge lies in expanding the usage among CGIAR research teams, especially for external users that are not contracted by the initiative but are critical for knowledge transfer and influencing and uptake for scale. The team explained that they had developed a

strategy for this purpose. KISM plans to generate several synthesis guidelines based on the Innovation bundle RCTs findings with accompanying webinars and to prepare a couple of large science policy events at the end of 2024. As this bundle differs significantly, no RCT or evaluation has been planned. They will use ongoing data and analysis (including participation in event dissemination, citations, use of the platform for different resources, post-event surveys), which could be further solidified for a more concrete and reliable assessment of the achievement of its targets, outputs, and outcomes. This PT case could contribute to the team's evidence in that regard—a tentative outcome we agreed to explore is an increase in engagement volume, diversity, and quality.

Step 4. Milestones to outline likely steps in potential trajectories of change

This step involves evidence collection through prospective Process Tracing. This entails the clarifying the sequence of steps or milestones towards outcomes, across potential causal pathways, that could include multiple trajectories from the design of innovation to its pilot and research engagement with specific actors that could lead to specific behavioural changes instrumental for scaling. The PT actively seek information on stakeholder engagement and outcomes. This will be followed by a phase of evidence gathering and review. Regular update calls and technical support are provisioned to ensure relevant evidence is collected along the pathway to the outcome. The goal is to maintain a dynamic, ongoing dialogue among teams to continually refine the validity of the claims based on the emerging evidence collected throughout 2024.

A Practical Example of Milestones to outline likely steps in potential trajectories of change - Step 4

Innovation for inclusive and sustainable growth of domestic food value chains in Honduras focuses on maize and beans to improve participation and profitability of smallholder farms and agrifood SMEs in domestic food value chains (DFVCs) and lower their environmental footprint. The pathways outlined below illustrate how the trajectories of change might emerge from the design of innovations to early signs of scaling. The steps are proposed around the three main phases proposed: (1) identifying innovations, (2) generating evidence, and (3) accompanying innovation scaling.

The evaluation can potentially be conceptualized as four complementary pathways of change:

- Innovation design pathway: Researchers develop scoping studies and co-design innovation with other local partners. They also develop innovation profiles to be piloted with farmers' associations.
- Innovation pilot pathway: Researchers develop baseline and end-line studies on beans with local farmers associations (ASAGRO and CECRUSCO), conduct at-farm bean grain quality testing, and send WhatsApp messages to producers at key moments.
- Local research engagement pathway: Researchers hold workshops to discuss progress and scaling strategies.
- International research engagement pathway: Researchers present research reports and key findings in international forums.

It should be noted that not all these steps will necessarily be consequential to the materialization of outcomes. Those presented here are steps in the process that—if outcomes materialize—may be traced back, in part, to some of these steps and others that have not yet happened. If/when outcomes materialize, the steps can be re-defined to speak to the most relevant content from studies, workshops, and other stakeholder engagement activities.

Step 5. Guidance on evidence quality assessment

This step focuses on equipping country teams with guidance on evaluating the quality of evidence used to report outcomes. We will emphasize on criteria such as uniqueness, plausibility, and triangulation through an ad-hoc formative phase. A dedicated designed tool will be provided to support the gathering of evidence and the development of possible contribution claims. This step aims to standardize the evidence assessment approach across geographies and work packages, and it will allow the WP and MELIA teams to have an ex-ante assessment with country teams of the quality of evidence to support contribution claims.

A Practical Example of Guidance on evidence quality assessment - Step 5

1. **Government Partners - Memorandum of Understanding (MoU):** Suppose a government partner signs an MoU to implement water-saving technologies in agriculture. While the MoU symbolizes commitment, its effectiveness as evidence hinges on actionable follow-through. Is the government actively promoting these technologies? Are budget allocations, policy changes, or training programs in place as outlined in the MoU (plausibility)? The presence of these elements would validate the MoU as not just a symbolic gesture but a blueprint for tangible action.
2. **Internal Sources - Internal newsletters and bulletins:** Consider an internal bulletin celebrating the launch of a successful new crop disease monitoring system. While the bulletin may create a positive narrative, the quality of this source as evidence depends on ground-level impact and its visibility in the eyes of key actors. For instance, assuming there has been a measurable decrease in crop disease incidence since its introduction, how did it influence standard settings within dedicated institutions or partners that monitor crop diseases? Investigating these aspects would reveal whether the bulletin's claims are targeted or untargeted towards standard setters.
3. **External (Non-Governmental) Sources - NGO reports and policy analyses:** An NGO report might applaud a new farmer training program for its innovative approach. However, the depth of this report lies in its long-term trend analysis. Has there been an increase in crop yields or income among participating farmers over time? Were alternative training courses happening in the same area (uniqueness), and were the same donors allocating resources for them? An investigation into the claims of a report by the NGO would determine whether the training program represented a strong contribution beyond what was reported from a pool of participants, especially if it influenced a practice change sponsored by multiple organizations (triangulation).
4. **Internal Sources - workshop and conference presentations:** Let's assume a presentation at an internal conference showcases a breakthrough in drought-resistant seed technology. While the presentation might be compelling, its actual worth as evidence is measured by whether key decision-makers attended the event and decided to sponsor the initiative. Are these social actors showing interest in these technologies? Is there a notable difference in their behaviors before and after the series of engagements? These indicators would help assess whether the presentation's claims can tangibly influence decision-making through specific declarations or pledges.

Step 6. Detail outcome statements/contribution claims through outcome harvesting statements

This step employs an outcome harvesting statement to refine contribution claims for significant outcomes as output evidence emerges. This process involves progressively clarifying relevant details concerning social actors, change agents, and expected change trajectories. The focus will be identifying key partners and tracking their changes that could contribute to scaling innovations or influencing a wider set of regulations or business applications. This step serves as a repository a valuable information and insights into how change is anticipated or unfolding across the initiative's innovations.

A practical example of Detail outcome statements/contribution claims - Step 6

An example of expected change could potentially relate to the transformation within the Dairy Development Authority (DDA) in Uganda also due to the collaborative efforts of key actors, including CGIAR, Photohub, IFPRI, and CIMMYT and the related innovations. How information would be organized through Outcome Harvesting statements can illustrate a structured inquiry into the change process we expect to observe over time. The following information is meant to exemplify how outcome harvesting can help detail the change process of the transformation of a specific social actor like DDA.

Description of a Behavioral Change

Between 2022 and 2023 (when), the Dairy Development Authority (DDA) in Uganda (where), particularly its staff ranging from regulatory officers to top management (who), underwent a significant transformation. This change involved a shift from the DDA's traditional regulatory roles to actively promoting improvements in the compositional quality of dairy products (what). Previously, the focus of the DDA was primarily on licensing and policing sanitation at Milk Collection Centers (MCCs). However, the introduction and success of innovative approaches, such as milk analyzers and video-based campaigns, marked a significant shift in their operational strategy (how). By integrating and promoting these methods, the DDA demonstrated a notable evolution in its approach, moving towards a more dynamic and improvement-focused operation within the dairy sector.

Source of Evidence

Who/where? DDA's internal reports, testimonials from dairy farmers, and observational data from field officers evidence this change.

Date Identified? The change was progressively identified throughout 2023.

Contribution of the Project

What? The project, involving CGIAR, Photohub, IFPRI, and CIMMYT, led to a collaborative video-based information campaign and the introduction of milk analyzers.

When? The project's contributions were made throughout 2022 and 2023.

Contribution of Other Actors or Factors

What? Other contributing factors include government policies promoting dairy quality, market demands for higher-quality dairy products, and technological advancements in milk analysis. Alternative causal pathways would be important to establish the strength of contribution from the specific set of engagements from the teams driving the innovations.

When? These factors have evolved over the past few years, coinciding with the project timeline.

Significance

Why? This change is significant as it demonstrates a shift towards a more proactive and innovative approach to regulating the dairy industry. It has the potential directly impacting the quality of dairy products and the livelihoods of smallholder farmers in Uganda. It also aligns with national goals for agricultural improvement and positions DDA as a model for similar transformations in other sectors.

Step 7. Ongoing evidence collection to iterate on contribution claims and Work Package theories with in-country teams

A collaborative endeavour will be undertaken to ensure work package-level theories of change are thoroughly unpacked with country teams. Drawing on the collective evidence, this step will unpack the casual pathways between outputs and outcomes linked to the claims. The expected and alternative pathways to achieve the selected outcomes would be identified to offer some ground on possible counterfactual settings. Alternative pathways will be identified and lightly assessed, considering resource constraints. This step will entail a more in-depth exploration of the linkage between theoretical assumptions and practical steps towards outcomes. This collaboration will yield clearer assumptions, pathways, and intermediary steps, setting a precise roadmap for evidence-gathering and verification throughout 2024. It is particularly beneficial in the assessment if WP teams can track engagements with key stakeholders who may adopt or scale innovations in part or full. It helps to identify relevant activities, events, and outputs for particular outcomes. This can be done in the Offline Key Results Reporting spreadsheet under output tracking for each WP. However, in the short description section, it will be helpful to include information on who was engaged, what kind of interest they may have expressed, or what kinds of verbal or material commitments they may have made. Alternatively, a new tab could be designed to track "engagements" directly.

A Practical Example of Ongoing evidence collection to iterate on contribution claims - Step 7

In Step 7, focusing on the hypothesized outcome involving Uganda's Dairy Development Authority (DDA), we can frame a narrative around iterating over a specific contribution claim. This claim is that the DDA's pivotal shift from traditional regulatory roles to actively promoting improvements in milk compositional quality is a direct result of collaborative efforts with critical actors like CGIAR, Photohub, IFPRI, and CIMMYT, and mainly due to the influence of a video-based information campaign.

To validate this contribution claim, a systematic approach involving ongoing evidence collection and collaboration with in-country teams will be undertaken throughout 2024. This process would start by gathering evidence from the WP team. It would include collecting data from various sources to determine whether evidence from milk analyzers in milk collection centers (MCCs) or feedback on the video-based information campaign influenced internal DDA records showing changes in policies and practices. The core

of this process would be a series of in-depth interviews and evidence from workshops with the DDA where CGIAR and other partners shared information and influenced decision-making. The focus would be, therefore, on tracing the steps over time (as they manifest) from the introduction of milk analyzers and the execution of the video campaign to the observed shift in DDA's behaviors. The evidence would indicate whether these initiatives influenced DDA's and if this aligns with the hypothesized trajectory of change from output to outcome.

The ongoing tracing in 2024 will also delve into exploring evidence related to alternative explanations and rival pathways. For instance, what other market or policy changes during this period might have influenced DDA's shift? This would mean developing counterfactual scenarios to understand what DDA's trajectory might have looked like in the absence of these interventions and refine the contribution claim. The evidence collected would confirm or disconfirm the claim that the video-based information campaign and the introduction of milk analyzers were significant factors in transforming DDA's role. This iterative approach would validate the claim and provide a deeper understanding of the causal mechanisms behind DDA's transformation. This ongoing exchange with the WP team and evidence collection would yield a more precise set of assumptions and pathways, creating a detailed roadmap related to DDA and its role in Uganda's dairy sector.

Step 8 – Retrospective process tracing

In late 2024, a retrospective process tracing exercise will be conducted. This will involve analyzing the collective evidence to verify the evidence linked with each causal chain for prioritized contribution claims concerning selected outcomes for case studies. This comprehensive assessment of the initiative's progress is based on the probative value of evidence and observed outcomes. This step will also explore how evidence from work-packages connects to the overall meta-theory. By examining these linkages, we can understand how scaling readiness has evolved within and across innovation bundles, providing a crucial basis for the ensuing impact assessment study.

A practical example of Retrospective process tracing - Step 8

For retrospective process tracing, let us consider a practical scenario, from Honduras, where the initiative, nearing the end of 2024, engages in a reflective analysis of the evidence collected regarding the validity of the contribution claim based on observable outcomes linked to the innovations meant to increase on-farm coffee bean quality testing for smallholders. The following sub-steps illustrate how the retrospective process tracing would take place:

Setting the stage for retrospective process tracing: As 2024 draws to a close, teams in Honduras, including local agricultural bodies, CGIAR, and other partners, are preparing for a comprehensive retrospective process tracing exercise. The goal is to verify the evidence linked with each causal chain for prioritized contribution claims concerning the impact of on-farm bean grain quality testing.

Collecting and analyzing evidence: Throughout the year, various types of evidence have been collected from internal and external sources. Internal sources include detailed reports from field teams on the implementation and acceptance of the mobile test kits, data logs from the test kits showing usage patterns and results, and feedback from local technicians who operated these kits. External sources comprise inputs from farmers, analyses from agricultural experts, and potential studies conducted by local universities or NGOs assessing the broader impact of this innovation on the coffee bean market in Honduras and how this information informed exchanges with vital social actors.

Examination of the probative value of evidence: The retrospective analysis begins with a holistic examination of all collected evidence during the various exchanges with the WP teams and other key informants. The focus will be on the probative value of each piece of evidence – its ability to prove or demonstrate the strength of the on-farm testing initiative's contribution to the WP-level outcome. For instance, data logs from the test kits can provide concrete proof of usage frequency and quality improvements in bean grains over time. Farmer feedback and response to engagements with key

organizations, especially related to sharing information about economic benefits emerging from the pilot, can offer qualitative insights into how the output results of the innovation influenced decision-makers instrumental for scaling (outcome).

Linkage between theory and practice: Another step is exploring the linkage between the meta-theory of the work package and the actual evidence gathered. This involves assessing how the scaling readiness of the innovation (the on-farm testing kits) has evolved. Have these kits been adopted widely across different regions in Honduras? Have they led other organizations to adopt similar improvements in bean grain quality? And, crucially, has this improvement translated into institutional support and better market outcomes for the farmers?

Forming the basis for Impact Assessment: The findings from this retrospective process tracing will form the basis for the ensuing impact assessment study. They will provide a clear picture of the effectiveness of the on-farm bean grain quality testing innovation and how it translates to concrete behavioral changes within actors necessary for scaling. This understanding is crucial for planning the last step of the process, which is to ground solid evidence in explaining the output-to-outcome causal transmission.

Step 9. Conduct the impact assessment

The final step of process will involve conducting the impact assessment study. This entails a comparative analysis across cases to assess the presence and absent or absence of factors of supportive or hindering conditions. Additionally, the study will evaluate the potential for transferring innovations to other contexts. The evaluation will develop evidence heat maps to demonstrate where outcomes lie. For this purpose, additional data will be collected from various stakeholders in the respective innovations under investigation. The timeline of the data collection, before the end of the funding, would make it difficult or too early to evaluate the impact of the initiative or even the End of Initiatives Outcomes (EIOs).

A Practical Example of Conduct the impact assessment - Step 9

For Step 9 on the impact assessment study, a particular focus will be given to Honduras case. The analysis will emphasize on how key social actors can be influenced to scale the results of the work on coffee bean quality across the country.

Plausibility and influencing key actors: The assessment begins by establishing the plausibility of the coffee bean quality improvement initiative on a specific observed outcome. This involves tracing a clear, logical connection between the intervention – the introduction of mobile test kits for coffee bean quality assessment – and the observed behavioral shifts among social actors. By showcasing a timeline of events and engagements (through an output tracker), the evaluation aims to demonstrate how the intervention directly and significantly contributed to changes within key social actors, such as government agricultural bodies, coffee exporters, and farmer cooperatives in their practice, regulations, or standard setting through the results from the pilot.

Uniqueness related to adoption and scaling pathways: The uniqueness criterion examines the specific causal links between the intervention and the outcome at the WP level that alternative pathways cannot explain. In Honduras, this step might involve presenting evidence that establishes a connection at the output level between the coffee bean quality improvements and the test kits' use. Moreover, to establish a distinct causal connection with an outcome change, the assessment would aim to verify how the results from the pilot persuaded relevant actors in the coffee industry, like major exporters and industry regulators, to scale the technology to drive quality improvement of coffee beans so it can be adopted on a larger scale.

Triangulation for credibility and engagement: Employing triangulation, the study corroborates findings through various evidence sources and methods. This approach strengthens credibility of the findings by involving diverse stakeholders in the verification process. For example, engaging different actors in Honduras – from farmers who have used the test kits to agricultural researchers and governmental stakeholders – should yield evidence of the strength of the contribution of the intervention on social actors.

Likewise, evidence gathering and analysis during the impact assessment would be designed to verify the level of increased trust and buy-in among key actors to identify the causal connection between engagements and an observed outcome that is considered instrumental to the scaling of the intervention.

Transferability for widespread adoption: Finally, the transferability assessment explores the potential for expanding the intervention beyond the initial areas of the pilot. This involves analyzing the conditions that led to the success of the intervention in specific regions and determining if these can be scaled in other parts of Honduras. The study considers factors like regional differences in farming practices, infrastructure availability, institutional enablers, and the readiness of local communities to adopt new technologies. By identifying these factors and potential barriers, the assessment serves as a roadmap, identifying entry points for scaling the intervention across Honduras.

Practical application: This impact assessment would entail developing evidence heat maps and conducting comparative analyses to visually demonstrate the geographic spread and how the results related to a specific technological improvement influenced engagement and decisions among social actors. The assessment would aim to gauge the degree of changed behavior among key social actors by presenting evidence of how they provided a clear strategy for scaling the intervention thanks to the evidence generated from innovation bundles within government agencies, industry leaders, and farmer groups and their efforts to adopt technologies instrumental in improving markets.

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