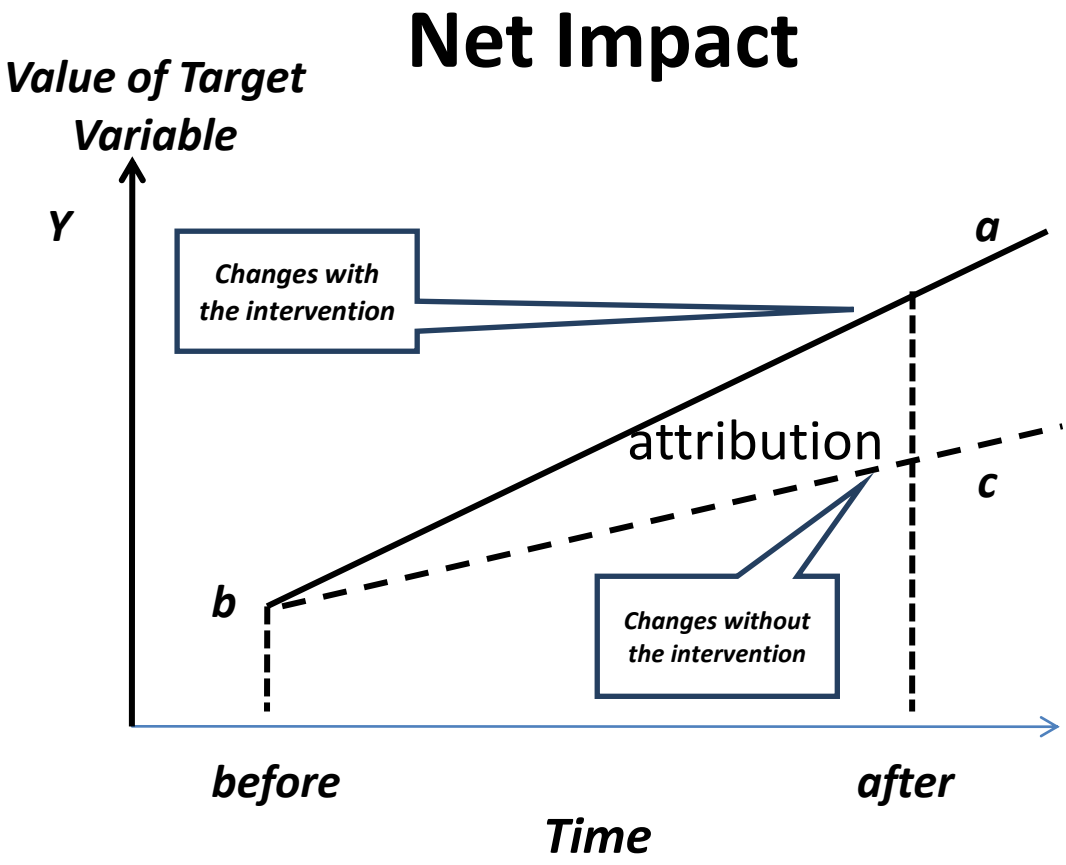
MONITORING AND RESULTS MEASUREMENT IN KATALYST

Attribution

What is attribution and why is it important?

Katalyst is operating in a complex economy. There are many factors that might affect the various changes Kataslyt aims to cause, particularly the competitiveness of SMEs and farmers. In order to assess the effectiveness of its interventions, Katalyst has to determine the extent to which measured changes are due to Katalyst's activities, as opposed to other factors.



Source: Impact Evaluations and Development: NONIE Guidance on Impact Evaluation, Frans Leeuw, Jos Vaessen, April 2009

"Attributable Impact" is the amount of change that is caused by Katalyst. In other words, attributable impact (a-c in the diagram) is the difference between the actual measured change (a – b in the diagram) and the change that would have without Katalyst (c-b in the diagram).

"What would have happened without the project" is called the "counterfactual." The core challenge is that it is impossible to know with absolute certainty what the counterfactual is for a target group that has been affected by an intervention. Therefore, the development community uses methods to estimate the counterfactual, and thereby calculate attributable impact.

Methods for estimating attribution

There are generally two methods for assessing attribution, the factual and the counterfactual.

The "**factual**" method measures before and after changes; for example, "supplying village water pumps reduces the time and cost it takes to collect water". In this case the attribution to reducing water collection time and costs is so clear that there is no need to resort to any other method of assessment. Similarly, in the case of the "fish pond leasing" intervention it is easy to attribute the increase in the number of ponds available to fish farmers to the change in government regulations surrounding public water body leasing. Three common methods used to assess the factual are:

- **End of Project Survey:** As in the case of the water pumps above, attribution can be clearly established assuming that there are no other strong factors that are important for this change. This is particularly effective in case of a new technology, where its introduction is the only new variable in the change process. In such cases where the causality is clear it is not necessary to conduct large surveys. With this type of survey, however, the target group needs to recall the details of their condition before the intervention.

- **Before and After Surveys**: In the absence of readily available or credible data that measures changes in the outcomes of the selected target group, it may be necessary to collect baseline as well as end-of-intervention data, in a "before and after" survey. This would involve surveying a representative sample of the selected target group. The aim of this survey is to verify the magnitude, if any, of the change that happened. Such surveys can convince that a change has happened, but in themselves they do not establish credible attribution.
- **Opinion Surveys:** Can supplement the two above-mentioned methods. These can be conducted with a representative sample of the target group that has been affected by the intervention. The aim of such surveys is to identify the strength of the causality between the proper use of the intervention's output and eventually the perceived result that this has generated. In such cases the selection of a representative sample of the target group is critical for the credibility of the conclusions.

Collecting factual data can be efficient when the attribution case is more transparent. When this is less clear supplementary methods are needed in order to assign attribution to the intervention.

The "**counterfactual**" is a second set of methods for assessing attribution. In such cases there may be several external variables, such as weather, civil unrest, national economic performance, or the availability of other essential inputs that will significantly influence the final indicator, and, in these cases it is important to use other methods to try to "isolate" the core value of the intervention. Two of the more common methods are presented below.

- **Comparison Analysis:** This involves comparing the changes measured in the selected target group with the overall norms for that same target group. These may be larger economic trends that can be identified using national statistics or comparable data collected by other credible researchers. Examples could be national productivity rates, income growth or decline, national mortality, national exports, etc.

- **Quasi-Experimental Design:** This method is sometimes called the "difference of difference" where a representative sample of the intervention's target group is surveyed before the

intervention starts and then at its conclusion. This difference is then compared with the difference of a representative control group of the beneficiaries who have not participated in the intervention. This can be done with small and "purposive" sampling and is suitable for isolating an intervention's impact.

How does Katalyst handle attribution?

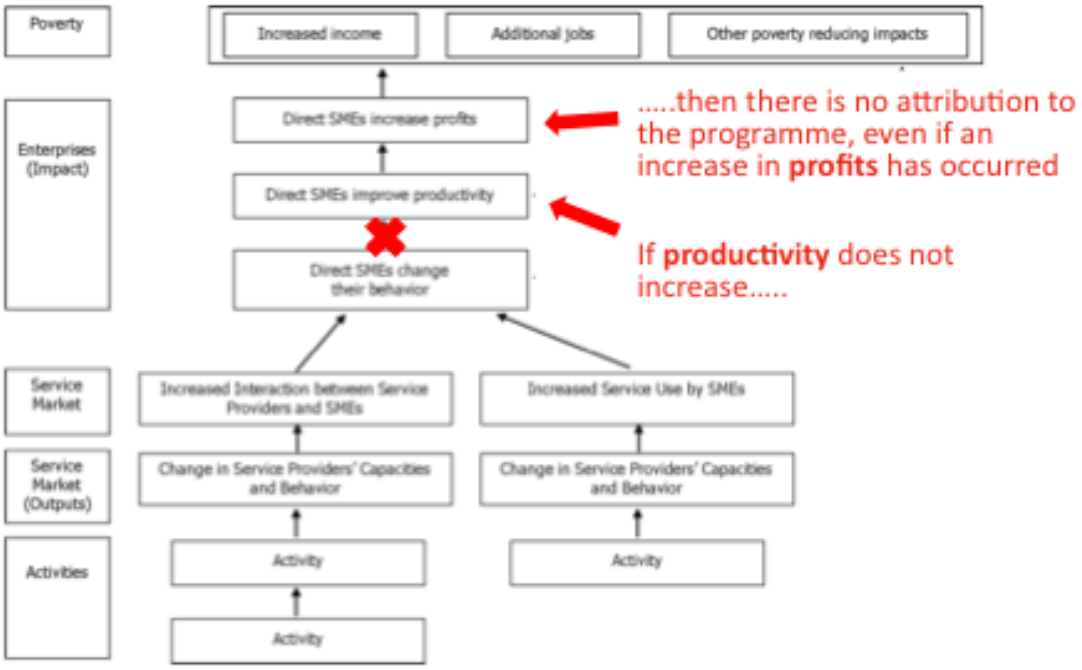
International best practice indicates that the following methods provide the foundation for assessing the attribution of changes to a project:

- Developing clear and logical results chains, and measuring changes at every level of those chains using factual methods.
- Investigating the extent to which each change is due to the previous one in the results chain, based on qualitative information. Essentially, this means investigating why each change happened using qualitative methods. This can be achieved through an "opinion survey" or less formal methods.

Katalyst uses both these methods for every intervention and all key changes in impact logics. In addition to helping Katalyst understand the extent to which measured changes are attributable to Katalyst, these methods provide very valuable information for management decision-making.

Using this foundation means that if the chain of changes in the impact logic does not happen as expected, Katalyst assumes that any measured changes at the purpose level are not due to Katalyst activities. (See diagram below)

Figure 1: Attributing Change



Source: Jim Tanburn

Activity to Output:

Generally the context and findings of the qualitative assessment and/or "opinion survey" allow Katalyst to take 100% attribution for changes from activities to outputs. However, if the opinion survey shows that there were other factors that significantly contributed to changes at the output

level, then figures at the attribution level are reduced accordingly. This is done based on the findings of the opinion survey. For example, if the survey shows that half of providers stated that Katalyst activities were the major reason for changes and half stated other reason, then Katalyst attributes 50% of change to Katalyst activities.

Output to Purpose:

Most of the time, the factual method Katalyst uses is "before and after surveys". "End of Project Surveys" are only done when there is a compelling reason why baseline data could not be gathered or it was not appropriate to gather. The reason must be documented in the Intervention Plan.

Katalyst chooses the counterfactual method based on the context of the intervention and available data.

- "Comparison Analysis" is generally used when reliable secondary data on national norms or similar can be found and there are no factors that would invalidate the analysis such as other projects working in the same sector and in the same area.

- "Quasi-Experimental Studies" are generally used when other factors are expected to significantly influence the indicators being investigated; hence comparison analysis is ruled out as a method. Quasi-experimental studies are only viable when a reliable "control group" can be identified. A reliable control group consists of people who are similar to those being affected by the intervention but who are not targeted by the intervention. For example, they may be members of the target group in another geographic area similar to the one being targeted. At the testing phase, the outreach of the intervention is often limited enough to be able to identify a reliable control group. Once Katalyst is in the scale up phase, it is expected that the influence of activities is wide-spread; therefore it is not practical at this stage to identify a reliable control group.

When does Katalyst decide how to handle attribution?

The method for measuring attributable change is chosen when the intervention plan is developed. The method chosen is documented in Intervention Plan and reflected in the MRM plan.

What does Katalyst do when several interventions aim to achieve one competitiveness change?

When several interventions' combined result cause a specific change in competitiveness, it is not necessary to determine the extent to which each intervention has caused the change. Instead, Katalyst combines the results measurement of these interventions at the purpose level. This process begins by mapping interventions to determine the geographic overlap of the interventions aimed at a particular change in competitiveness. Once the geographic overlap is established, Katalyst gathers data to measure the changes in competitiveness in the target group in that area and assesses the extent to which those changes are due to the combined influence of the interventions.

How does Katalyst handle attribution of wider systemic change?

Assessing the attribution of wider systemic change presents unique challenges. Katalyst assesses wider systemic change at the levels of more service/output providers crowding in and farmers/SMEs copying those already affected. Katalyst measures the actual changes experienced by those farmers/SMEs that copy the ones already affected. However, it is assumed that the attribution of changes to Katalyst activities at this "indirect" level is less than at the "direct" level. Currently, the attribution at the "indirect" level is assumed to be 50% of that at the "direct level." Katalyst is

working with others in the international development community to devise other ways to estimate attribution at this "indirect level."

How does Katalyst handle attribution at the scale up phase?

Katalyst uses the figures for attributable impact derived at the testing phase to estimate attributable impact to the direct target group at the scale up phase. These figures are periodically checked using "pocket surveys" to verify whether they are still applicable. If no testing phase is necessary, Katalyst uses the above strategies at the scale up phase.

Displacement

Katalyst interventions benefit some enterprises, but others may suffer as a result. For example, if furniture makers benefiting from Katalyst interventions sell more furniture, maybe other furniture makers sell less. This is called "displacement."

It is critical to think about the potential for displacement during the design of an intervention. Katalyst's work should contribute to overall sector growth, not result in a "zero sum game" where gains to some enterprises or farmers are offset by losses to others. Therefore, Katalyst considers displacement at three stages of design:

Choosing Sectors: Katalyst chooses sectors with the potential for significant pro-poor growth, and those where Katalyst interventions can help unleash that growth.

Developing Comprehensive Sector Strategies: Katalyst bases its strategies on opportunities to help sectors grow in a pro-poor way. Katalyst focuses on those reducing constraints in sectors that are hindering the pro-poor growth of the sector.

Choosing and Designing Interventions: Katalyst chooses and designs interventions to enable SMEs to grow and develop in ways that add to the overall growth of the sector, rather than only enable one group of SMEs to profit at the expense of others.

Katalyst's emphasis on considering displacement during design minimizes the displacement effects of the project's work to the extent possible. Within the Monitoring and Results Measurement System, Katalyst will address issues of displacement wherever observed and applicable. See Table 5 for Katalyst's guidelines on when to take displacement into account.

Table 1: Guidelines on Displacement

	What might happen	How displacement is handled
Service markets	Katalyst may encourage a monopoly by working with just one service provider, which will make it more difficult for other service providers. Katalyst may help some service providers while others lose out.	**Only if judged significant:** As Katalyst generally works in weak service markets, where there is considerable room for growth. Katalyst also designs its interventions to encourage service provider crowding in. Therefore, Katalyst expects that it is rare for displacement to be significant in service markets. However, if the sector team suspects that displacement is significant, then they work with their MRM focal point to estimate the effects of displacement at the output level and impact figures are reduced accordingly.

	What might happen	How displacement is handled
Enterprises and Farmers	Enterprises affected by Katalyst benefit and grow; as a result others suffer and shrink.	**Only if judged significant:** Katalyst's design process ensures that displacement is not significant among enterprises or farmers at the outset. However, if markets become saturated, displacement will increase. When a sector team suspects that displacement is significant, then the effect is estimated at the purpose level and impact figures are reduced accordingly.
	Enterprises switch from another sector to the one Katalyst is targeting.	**Displacement included:** This effect is not technically called "displacement" and it is, in fact, one that Katalyst often promotes, so that, for example, farmers can move from less to more profitable crops. It is important to consider this effect in MRM. Goal level figures in results chains estimate the *additional* net income SMEs will experience as a result of an intervention, in other words the total net income created minus what SMEs or farmers were earning before. Therefore, taking this effect into account is an integral part of the MRM system.
Sectors	As a result of Katalyst helping one sector, a related sector might shrink. For example, the wood sector might shrink as a result of Katalyst helping the plastics sector.	**Not taken into account:** Competition is the basis for growth and development. This issue needs to be considered when choosing sectors. However, this effect will not be taken into account in results measurement, just as Katalyst does not take into account when work in one sector benefits a related sector. This level of analysis is too complicated for Katalyst's system to handle.
Copying	More enterprises entering a sector may lead to more supply which results in prices dropping and, therefore, less benefit to all enterprises in the sector.	**Not taken into account:** This is often a positive change for the economy and will encourage increases in productivity. As Katalyst is working in growing sectors, this effect will probably not be significant in the time horizon of Katalyst's measurement. Therefore, it is not taken into account in results measurement.

In practice, it will not be common for Katalyst to take displacement into account in results measurement. However, Katalyst will take displacement issues when designing their intervention and try to ensure that it does not become a problem for that intervention. However, in cases when it does and there is an unintended displacement issue affecting the overall impact of our work, it should be closely monitored and impact estimates should be adjusted to account for it.