Methodology Guide to Contribution Analysis for Christian Aid

Background
Contribution Analysis was used within a series of theory-based evaluations of Christian Aid’s governance portfolio in 2015, specifically in the Kenya country study. The approach was used to try to understand and evidence to what extent Christian Aid’s and its partners’ governance approaches has contributed to better health outcomes. This methodological guide was one of the deliverables of the evaluation and is aimed at Christian Aid staff who are interested in understanding alternative approaches to evaluating governance and other hard-to-measure areas of work. The guide introduces the theory behind Contribution Analysis and the practical steps taken in applying the approach during the evaluation in Kenya.

Description of the Methodology
Contribution analysis was developed by John Mayne in the early 2000s, as a response to the challenges of assessing the ‘cause and effect’ of complex interventions i.e understanding whether and to what extent an intervention has contributed to an observed change in a situation or target group. A useful reference is Mayne’s ILAC Brief 16 (2008), listed along with other references at the end of this document.

<table>
<thead>
<tr>
<th>Contribution Analysis At A Glance</th>
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<tbody>
<tr>
<td>→ Contribution Analysis is an approach to assessing the outcome or impact of a policy, programme, service or other intervention where designing an ‘experiment’ to test cause and effect is unfeasible or impractical.</td>
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<td>→ It assumes that there are multiple and complex processes at play in achieving any outcome or impact…</td>
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<td>→ And it aims to explore and understand whether/ to what extent an observed result (positive or negative) has been ‘caused’ by a specific intervention and/or by other external factors.</td>
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<td>→ It does this through a step-by-step approach which explores why an observed result has occurred (or not) and the roles played by the intervention and other internal and external contributing factors.</td>
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<td>→ It specifically gathers evidence about potential alternative explanations for achieving a result and then uses this evidence to strengthen or discount the case for the intervention’s contribution to any change.</td>
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<tr>
<td>→ Contribution Analysis works best when internal staff and partners can be closely involved in elaborating the theoretical framework and validating the findings.</td>
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Contribution analysis is a theory-based evaluation approach, i.e. it depends on specifying how an intervention’s activities will lead to medium and long-term change outcomes and the contextual factors that may affect this. While it can be used to elaborate, verify or test a Theory of Change, it is not designed to be used to construct a ToC which did not previously exist.

A distinguishing feature of contribution analysis is the emphasis on identifying plausible alternative explanations to the intervention (policy, programme or service) to account for any observed outcomes. These could include, for example, other related government programmes, economic or social trends or behaviour unaffected by the intervention.
Contribution analysis involves explicitly exploring the most likely alternative explanations, presenting evidence to discuss them, and where appropriate, discounting them. The process is designed to help to reduce the uncertainty about the contribution that an intervention has made and, based on the evidence, to strengthen the argument that the intervention or policy has contributed to a (hopefully positive) change.

The report from a contribution analysis process is not definitive proof, but rather provides evidence and a line of reasoning from which a plausible conclusion can be drawn about the intervention’s contribution to the documented results.

There are few examples of the use of Contribution Analysis in practice and this paper should not be taken as a ‘blueprint’ approach, but rather as an example of a practical, pragmatic application of Contribution Analysis in a particular context, and with the time and resources available for the evaluation.

**When to use and not to use Contribution Analysis**

Contribution Analysis (CA) depends on having a clear Theory of Change for a programme, policy or intervention. It is designed to explore and ‘unpick’ in detail the causal chains and pathways leading to an observed change and to understand the role of an intervention viz a viz other factors in contributing to this. Therefore, it is best used when an organisation/ programme/ intervention wants to understand whether and how it has contributed to change – and is open to discovering that other actors or factors were more important in leading to (positive) change, that it has not led to change at all, or that it has contributed to an (unexpected) negative change. Like any evaluation approach, it is best used when an organisation is prepared to use the learning generated to improve its future work. Table 1 provides some guidelines for when it might be appropriate to use Contribution Analysis.

Table 1: When to use and not to use Contribution Analysis

<table>
<thead>
<tr>
<th>When to use CA</th>
<th>When to think twice about using CA</th>
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<tbody>
<tr>
<td>✓ When there are many potential causes of change and the aim is to explore answers to questions such as: Has the intervention influenced the observed result? What is its contribution viz a viz other actors and factors? Why has the result occurred? What role did the intervention play?</td>
<td>• For more traditional causality questions such as: Has the intervention led to the planned (positive) outcome? To what extent, quantitatively, has the intervention achieved planned outcomes and impact?</td>
</tr>
<tr>
<td>✓ Where a reasonably developed Theory of Change and/or Logic Model already exists for the intervention.</td>
<td>• Where a Theory of Change is unclear or needs to be developed and/or illustrated.</td>
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<tr>
<td>✓ Where sufficient time and resources are available for an evaluation (both in terms of budget and human capacity). In particular, where project/ intervention staff have time to be fully involved in the process.</td>
<td>• Where there are significant time and resource constraints available for an evaluation i.e. time for qualitative, participatory data gathering and analysis with project/ intervention staff is limited.</td>
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<td>✓ Where the evaluation outputs are intended for internal learning and understanding rather than donor accountability.</td>
<td>• Where the evaluation is primarily expected to showcase the success of an intervention, i.e. where there is overriding pressure to report on results to donors.</td>
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Where the level of complexity involved is relatively high - for instance, for advocacy and campaigning interventions aiming for high-level policy and practice changes.

• Where the level of complexity involved is relatively low - for instance, for WASH programming, where interventions have already been shown to work across different contexts with some variation.

• Where there is strong motivation and space internally to deepen an understanding of how and why changes played out the way they did.

• Where there is little motivation or capacity among internal staff to reflect deeply on alternative explanations and to articulate assumptions about how an intervention was supposed to work in detail.

• Where the intervention is at a relatively mature stage and at least some level of meaningful change has materialised.

• Where the intervention to be evaluated is at early stages of producing tangible changes – i.e. where only low-level outputs/immediate outcomes have been observed to date.

Example of key Steps for Contribution Analysis

The detailed steps used in the Kenya country study are illustrated in Figure 1 and described in more detail below. From this, experience, it is recommended that ideally steps 1-5 should start (and ideally be almost completed) before field visits and data collection are planned in detail.

Figure 1: 10 steps in a Contribution Analysis process
STEP 1: DETERMINE QUESTIONS AND EVALUATION DESIGN

Timing - As soon as possible, well in advance of any field visit / data gathering

Staff participation - Programme staff to prioritise source documents when there are time constraints

Activities – Determine the specific questions to be addressed, and confirm that a theory-based contribution analysis is the most appropriate evaluation design (see notes above). If yes, then:

Collate and read most relevant documents on:

- Theory of Change (ToC)
- Basic factual programme information
  (including partners, geographic and thematic scope, size / extent, timelines, etc.)
- Original project / programme proposals
- Organisational & thematic strategies
- Key internal reports, including case studies
- Existing evaluations

STEP 2: SET THE THEORETICAL FRAMEWORK

Timing - As soon as possible, well in advance of any field visit / data gathering

Staff participation - Close involvement of internal / partner staff who will co-construct the theoretical framework, with the evaluator facilitating and steering the process

Activities - This step starts to unpack the ‘black box’ of what happens between the project and programme activities and expected (or unexpected) changes.

Clarify the status and content of the Theory of Change for the intervention and define what the contribution or performance ‘story’ is that you are going to focus on/ test during the evaluation. A written ToC is assumed to include:

- A results or causal chain showing the logic of how change is expected to happen in the thematic and geographic context of the intervention
- What longer-term vision and changes the organisation / country programme’s portfolio is pursuing
- What interventions have been implemented and planned and how these link to the longer-term vision and desired changes
- Assumptions about how short-term changes will lead to long-term changes, together with an account of the underpinning risks
- The significance and role of contextual factors, including a reflection of relevant stakeholders and their role in bringing about changes.
As in the case of Christian Aid’s health governance programme in Kenya, where the ToC is not sufficiently elaborated or up-to-date, time will have to be allocated for this, either with individual staff (some of which could be done remotely through calls and document review before a field visit) or through an initial workshop locally. In this example, while some ToCs already existed for the health governance programme, they were not ‘testable’ for evaluation purposes – some were visual images with little or no narrative explanation or analysis to support them, while others were too broad. Therefore, the evaluators developed and validated an appropriately bounded and evaluation-specific ToC with staff, partners and other stakeholders - see 4 below. This took time away from field work and analysis and was noted as a limitation of the methodology in the evaluation report.

Figure 2: Example of a logic model/ ToC diagram (note that a narrative description and explanation is always required.)

STEP 3: APPRAISAL OF RELEVANT ELEMENTS OF THEORY OF CHANGE

Timing - Start prior to field visit and finalise early during field visit

Staff participation - Programme staff to validate existing information, and provide insights on what actually happened, going beyond what has been reported and documented

Activities – Appraise the relevant elements of the ToC and the implementation process. Assess the plausibility and strength of the ToC and identify causal pathways for further investigation, considering:

- How realistic is it to investigate this considering available resourcing and timelines?
- Which areas are particularly contentious and require more careful evidence collection?
To establish a plausible causal story, there needs to be evidence that the intervention was carried out to a sufficient degree of quality and scope:

- Assess and document what was actually done under the intervention to achieve the selected target outcomes.

**STEP 4: ARTICULATE A TESTABLE FRAMEWORK FOR CONTRIBUTION ANALYSIS**

Timing - Start prior to field visit and finalise early during field visit, e.g. in initial workshop

Staff participation - Programme staff to participate in facilitated discussion on this.

Activities - Articulate a testable framework based on steps 2 & 3. Explicitly articulate a testable theoretical framework that includes assumptions about causal linkages, alternative explanatory factors and the role of context.

This draws on the existing ToC as a starting point, but additions and changes might need to be made on the basis of discussions with the team and key informant interviews.

See example ToC developed for the evaluation of Christian Aid Kenya’s Health Governance Programme.

Partner workshop identifying and agreeing HG programme impacts
STEP 5: MAP EXISTING INFORMATION

Timing - Start prior to field visit and finalise early during field visit (iteratively with Step 3)

Staff participation – Little participation needed in most cases

Activities - Collect and map initial evidence, including existing monitoring and evaluation data, wider research and public information and other readily available information, across the multiple pathways of change identified:
- To what extent have expected results, assumptions and risks been realised?
- How accurate are the causal pathways?
- What other factors are playing a major role?
- Have any unintended outcomes materialised?

STEP 6: GATHER ADDITIONAL DATA TO SUBSTANTIATE LINKS

Timing – During field visit

Staff participation - Programme / partner staff may be needed to translate but care needs to be taken to limit potential biases.

Activities - Home in on unsubstantiated links in the contribution ‘story’.
- Identify areas of weak or contradictory evidence and follow up through further data collection.
- Identify potential alternative explanations and factors - follow up any evidence for competing explanations of outcomes other than those captured in the theoretical framework.
- Gather required data to assess extent to which explanations are supported or not.

This step will involve primary data collection with key informants and stakeholders and will generate the bulk of the data. It will also involve some triangulation of data gathered through document review and internal discussions. Different data collection methods and tools can be used. In this example, the evaluators used: Key informant / semi-structured interviews, focus group discussions, a timeline exercise and an impact grid exercise with multiple stakeholders. An overview of an impact grid methodology is shown in Annex 1.

STEP 7: INITIAL CONSTRUCTION OF CONTRIBUTION STORY

Timing – Mid-way through field visit

Staff participation – Little participation needed in most cases

Activities - Initial construction of the contribution story. Evaluators document their evidence and initial conclusions regarding the contribution ‘story’, including whether the chain of changes and accompanying assumptions in the ToC holds true, and acknowledging the contribution made by other actors / contextual factors. This step includes a further identification of weaknesses and gaps in the evidence to focus on these areas during the second half of field visits.
STEP 8: CONTINUE DATA GATHERING AND ANALYSIS

Timing – During field visit

Staff participation – Little participation needed in most cases, except where staff are key informants

Activities - Continue primary data gathering and refine collection tools as required

This is based on the specific direction of enquiry and mapping of evidence needed. Data can be quantitative or qualitative and be collected and analysed in any way appropriate.

STEP 9: VALIDATION WORKSHOP

Timing – End of field visit

Staff participation - Active participation of staff (and partners) required at this validation stage.

Activities - Validation workshop with staff and key stakeholders to present findings and initial analysis, including areas requiring further clarification and a discussion on alternative factors/ explanations for change.

These discussions will help to contextualise the evidence gathered in the field by adding insights on how conclusive the evidence is in some cases:

- Discuss findings and make sense of them
- Draw out learning and to what extent lessons are context-specific or generalizable
- Ensure process has been well understood by the evaluators and discuss how both findings of the approach and approach itself could feed into future planning or M&E.
- Come to an overall judgement on the contribution of the intervention to observed changes, weighing the strength of evidence, the significance/ importance of the changes observed and the degree of importance adhering to the intervention.

STEP 10: SYNTHESIS OF EVIDENCE AND REPORTING

Timing – Following field visit, (and/or can be done before step 9 and/or in a subsequent validation process)

Staff participation – While staff may not need to participate in the synthesis, the final analysis and conclusions should again be shared for feedback/ inputs/ validation.

Activities - This step pieces together the evidence to arrive at an understanding of what the contribution of the intervention to outcomes or impact has been to date. Different tools can be used for this, for example:

- A matrix to demonstrate the extent of outcome materialised and contribution
- Allocating a contribution score or similar measure of synthesis
See examples below, which although relatively simplistic and should be accompanied by a narrative, provide a transparent indication of what can confidently be said about the intervention’s contribution.

Finally, the evaluation report should include a narrative description of findings and results, including outputs of the methodologies and tools used during the contribution analysis process.

**Examples of synthesis frameworks used in contribution analysis**

Different approaches can be used to synthesise the evidence for the contribution analysis and draw conclusions. Some examples are provided below. Again, there is no ‘blueprint’ approach for this process.

Table 2 below gives an example of a contribution scoring ‘matrix’ from the evaluation of Christian Aid Kenya’s (CAK’s) health governance programme. Note that scoring in columns 1 and 2 is based on other analyses: Table 1 was an analysis by the evaluation team of the evidence of achievement of outcomes at different levels, based on triangulated data; Table 3 was a scoring by staff of the relative influence of external factors identified as potentially influencing programme results. In both cases, staff scored on a scale of 1-3, where 1= low, 2= medium, 3= high. Column 3 shows the contribution ‘score’, based on the degree to which an outcome was realised and the level of the programme’s contribution to achieving the outcome, relative to other factors.

Table 2: Example of contribution analysis synthesis

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Degree to which outcome realised (Table 1)</th>
<th>Level of contribution of programme relative to other external factors (Table 3)</th>
<th>Contribution ‘score’ (col. 1 x col. 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>O1 - Health policies, plans and budgets are responsive to the needs and priorities of communities</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>O2 - Communities meaningfully engage in advocacy</td>
<td>1.5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>O3 - Increased demand for health services</td>
<td>2.5</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>O4 - Strong community governance structures and active groups in place</td>
<td>2</td>
<td>2.5</td>
<td>5</td>
</tr>
<tr>
<td>O5 - Communities empowered to claim rights and demand accountable health governance</td>
<td>1.5</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>O6 - Communities able to interpret local health status information, define their health priorities, and monitor services delivery</td>
<td>1.5</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Clearly, the analysis is illustrative rather than definitive, and is not meant to be scientific, but rather tries to provide a more transparent framework for making a ‘plausible judgement’ about cause and effect.

Most organisations working in governance/ advocacy-related areas would struggle to achieve a maximum contribution score, particularly at the highest levels of the results chain, as by definition this type of work is heavily influenced both by factors (such as policy change, devolution, provision of free health services) and actors (government and other stakeholders) outside the control of the programme/ organisation. In addition, the results of such work can take a long time to realise, and change cannot always be observed within short term programme timeframes.

With these caveats, it is possible to say that:

- The degree to which outcomes have been realised shows achievement of O1 is weakest and achievement of O3 is strongest
- However, the programme’s contribution is relatively low for O3 - this was due to external factors including the provision of free government health services
- The programme’s contribution to achieving the outcomes is generally medium to high – and highest for O4 ‘Strong community governance structures and active groups in place i.e. this may not have happened without the programme.
- However, the programme’s added value in achieving O1 and O3 is unclear.

Another example of a contribution scale is shown in Table 3. Although similarly simplistic, the wording and ‘intervals’ for this can be decided by the evaluator in discussions with programme staff to arrive at a scale that is meaningful and useful in a given context.

Table 3: Example of contribution rating scale

<table>
<thead>
<tr>
<th>Significant contribution</th>
<th>X was the primary factor in bringing about a change in attitudes, knowledge and actions of the target stakeholder group. Without X, the change would not have been observed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some contribution</td>
<td>X was among the important factors for bringing about a change in attitudes, knowledge and actions of the target stakeholder group. Without X, the change may not have occurred in the same way.</td>
</tr>
<tr>
<td>Small contribution</td>
<td>X was a relatively minor factor in bringing about changes in attitudes, knowledge and actions of the target stakeholder group. Without X, the change is likely to have occurred but to have looked differently.</td>
</tr>
<tr>
<td>No contribution</td>
<td>X was not a factor in bringing about changes in attitudes, knowledge and actions of the target stakeholder group. Without X, the change is likely to have occurred in the same way.</td>
</tr>
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</table>
Potential challenges with Contribution Analysis and how to handle them

Table 4 highlights some potential practical challenges with using Contribution Analysis and some suggestions for how to deal with these and manage risks.

<table>
<thead>
<tr>
<th>Risks or potential challenges</th>
<th>Implication for evaluation if not managed</th>
<th>Risk management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absence of a ‘testable’ ToC</td>
<td>A contribution analysis-focused evaluation / impact assessment could not go ahead.</td>
<td>There is no consensus on how detailed a ToC needs to be for it to be robust enough to test. But it is essential that a collaborative and effective ToC is developed and agreed as early as possible in the evaluation process. This is likely to be an iterative process of development and testing.</td>
</tr>
<tr>
<td>Time and practical constraints resulting in insufficient quantity and quality of data collected</td>
<td>Missing information would mean some causal stories might remain incomplete.</td>
<td>Careful planning with internal team, including prioritising of stakeholders, questions and evidence. Going ‘narrow and deep’ instead of ‘shallow and broad’.</td>
</tr>
<tr>
<td>Unreliable measures and bias that denies or diminishes external factors’ responsibility for change</td>
<td>Incorrect conclusions would be drawn about what best explains a given outcome.</td>
<td>Triangulation (using multiple sources of information), complemented by good understanding and documentation of respective biases involved. Involvement of external key informants at validation stage who have less of a personal stake in the effectiveness of a given intervention.</td>
</tr>
<tr>
<td>Evidencing contribution claims, which themselves are built on causal claims.</td>
<td>Failing to properly test assumptions behind claims of causal linkages would lead to weak conclusions about contribution.</td>
<td>Both claims require quite rigorous testing through triangulation of evidence from multiple sources.</td>
</tr>
</tbody>
</table>
References

Addressing Attribution through Contribution Analysis: Using Performance Measures Sensibly [link]

Better Evaluation: Contribution Analysis. [link]


 Stocks-Rankin, Catherine-Rose. Reflective Literature Review of Contribution Analysis February (2014) [link]


Annex 1 – Overview of Impact Grid methodology

This participatory tool is designed to help the target groups of a project or intervention (communities, vulnerable groups, partners in a capacity building programme etc) to identify what difference the intervention has made to them. The method is based on participants identifying stories of change - brief examples of changes in knowledge, skills, confidence or other aspects of their lives - as a result of the intervention. The stories can be positive or negative – the participants make this judgement - and encourages analysis of any outcomes and impact. It also gives an indication of how strongly the changes (stories) can be attributed to the programme/ project intervention. The position of the examples on the grid can be analysed to see what patterns emerge (e.g. is it women giving this type of example? is one aspect of the project producing the greatest impact?). The grid can also help to identify stories that can be developed into more detailed case studies.

Who/When:

The tool can be used with individuals, groups and teams that potentially benefit from (or are affected by) the intervention. It works best with participants that are literate but it can be used with illiterate respondents if resource people are present to write down the stories. As it is concerned with outcomes and impact the intervention needs to have been running for long enough that the inputs, activities and outputs can take effect. For example if the intervention is a training course then the impact grid could be used three or six months later but not immediately at the end of the course.

The Method

The grid consists of a vertical axis with a horizontal axis that divides the vertical one into a positive area (above the axis) for stories of +ve change and a negative area (below the axis) for stories that respondents rate as having had an adverse effect (-ve) – see below. The horizontal axis represents the respondent’s assessment of how strongly the change can be attributed to the project’s interventions e.g. if they believe that the change wouldn’t have happened without the project, they place their story on the strongly attributed end of the axis; if they believe that it may have happened anyway but the intervention had some influence then they place their story on the weakly attributed end of the axis. When the exercise is completed the grid may have stories distributed across all parts of the positive and negative areas (though it is usual to have many more positive ones) along the grid.

To conduct an impact grid exercise, bring together the participants in a meeting/workshop. The minimum number is about six and the maximum is about 12 to 15. The facilitator can be a member of the implementing team though it is easier if an outsider (who has no vested interest in the results) runs the process. The facilitator outlines the recent history of the intervention to remind people of what happened, but without biasing the respondents (i.e. give an overview rather than list all the activities and intended achievements). It is important to be very clear about the timeframe for the intervention/ impact stories.

The facilitator then asks the participants to think about whether and how the intervention has affected them, positively and/or negatively, and to write down short ‘stories’ or illustrations of
This on post-it notes. There is no limit to the number of stories though in practice most identify about 2 to 4. The respondents then share their stories with a partner to help them to clarify their experience (and have the opportunity to re-word their example).

The group then comes together again and each person reads out their story and sticks it onto the grid in the position they believe is appropriate. They explain to the group why they chose the location. Depending on the level of trust and power hierarchies in the room, there can then be an open discussion where participants can be challenged to reconsider the location and move the story if they agree with the challenge (or not).

The analysis of the stories can be done together with the group (depending on the purpose and who is in the room). Otherwise, once the exercise is over the facilitator numbers each story and draws an A4 replica of the grid showing the position of the numbered stories (Don’t forget to do this, before removing the stories and taking down the grid!). The stories are then analysed to identify the main areas of change identified and any emerging patterns e.g. the proportion of positive to negative stories; the characteristics of the respondents giving negative stories; the characteristics of those reporting stories strongly attributed to the project (are they mainly women or men, richer or poorer, or is it certain types of interventions that evoke a strong contribution rating?).

As well as being part of an evaluation/impact assessment, the grid could also be used over the life of an intervention with the same respondents to enable the implementing team to track how and when changes are emerging in the target groups/project participants. The tool can also provide an early identification of examples of change, some of which could be explored further and written up as case studies.

Example of an Impact Grid