

THEORIES OF CHANGE IN THE PROCESS OF RURAL TRANSFORMATION: A REFINED WAY FORWARD



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ABSTRACT

Theory of change has been a useful evaluation tool for social science research. The interest in its use has been notable in recent years amongst international aid organisations and public authorities who make huge investment in social oriented intervention with more focus on the challenges related to gender empowerment and poverty cure in rural area. Logically, the achievement of intended change (impact) matters. In this context, the emerging question is: 'How are we getting a candid profile of change after the project implementation? The sources of data for analysis are taken from evaluation reports of Programme Evaluation Organisation, Planning Commission, Government of India.

Among the convolutions, found in the theory of change the important one is that the monitoring system does not extend beyond output level in the causal path revealing only impaired impact confining to the physical achievement vs target. This apart, there is no process monitoring of implementation and mid-course corrections. The paper suggests a slew of critical constituents for the refined theory of change which include: (a) process monitoring; (b) result based monitoring and evaluation (c) transparent outcome and the impact; and (d) human behaviour.

1. INTRODUCTION

1.1. PREMISE

In the context of implementation of a plethora of multifaceted development interventions driven by the Central and State governments, Multi-national financial institutions like the World Bank, Asian Development Bank, private donor and funding agencies in developing countries ushering in a transformation in rural arena, a number of strategic activities with mission mode, invested with multiple process have been initiated for bringing intended outcome and impact contextually in the given region or community of people. In India, the examples of rural development programmes included (1) Food for Work Program-1977, (2) Integrated Rural Development Programme-1979 (IRDP), (3) Tamil Nadu Women Development Project-2000 (Mahalir Thittam), (4) Tamil Nadu Empowerment and Poverty Reduction Project (TNEPRP –also called Pudhu Vazhvu Project-2005 (PVP), (5) Tamil Nadu State Rural Livelihood Mission (TNSRLM) and (6) National Rural Livelihood Mission (NRLM 2005-2011). All these programmes have impacted among others, with some tangible and intangible changes in rural ecosystem in the form of creation of social capital (community owned institutions in the form of SHG) in particular facilitating

empowerment of rural women and leveraging financial institutions in the last mile. Evidently, as on 31st march 2019 total number of SHGs, formed under Mahalir Thittam in Tamil Nadu was 3,91,311 (TNCDW 2019). Latest in the series is Tamil Nadu Rural Transformation Project (World Bank funded), with the development objectives of promoting rural enterprises, access to finance, and employment opportunities in selected blocks of Tamil Nadu.

Based on the premise, briefed on implementation of rural development programmes towards effecting a change in economic growth and social development over the past three decades, research question on the process of 'changes' emerge for exploring the strength and weakness of these causal pathway. These queries include 1. What is the theory of change (TOC)? Why are assumptions that helped in ushering in the intended change considered importance in theory of change? 2. How are the results brought out through result chain?

The methodology of the paper involves a descriptive analysis based on the secondary data pertaining to evaluation reports of the aforesaid four selected rural transformation projects (sl. nos. 1 to 4 in para 1) and authors hands on cognitive knowledge acquired over a period of four decades on evaluating the social oriented interventions in different contexts.

1.2. OBJECTIVES

- 1) To briefly recollect the features of the theory of change in rural development context with evidence-based illustrations.
- 2) To assess the quality of evaluation reports already made on the basis of TOC articulation.
- 3) 3. To explore the possibility of positioning human behaviour appropriately as a vital input in the causal pathway under TOC framework, and
- 4) To suggest a refined theory of change as a way forward towards establishing a sustainable change in rural development arena.

1.3. PRESENTATION

The paper has four sections. In the first section, theoretical explanation on the concept TOC and the other components which are inter-connected functionally in the causal pathway of the change is made diagrammatically. Second section illustrates the application of TOC in selected development intervention focused on women empowerment and poverty reduction on rural area and the prevailing gap in the casual effects ultimately. Third section highlights the need to position human behaviour appropriately in the causal path. Section four, concludes with some caution speculating, why the design problems connected to TOC are so endemic but also pointing suggestion for making a way forward.

2. WHAT IS THEORY OF CHANGE (TOC)?

Theory of Change is the connection between activities and outcomes that are measured by process monitoring. In other words, it is an ongoing process of reflection to explore the change and how it happens. It would be interesting to look at the origin of TOC in different model in the domain of evaluation.

2.1. THE ORIGIN OF THEORY OF CHANGE

According to Centre for theory of change (Centre for change setting standards for theory of change), it is difficult to trace precisely when the term "theory of change" was first used, but a hint at its origin can be found in the considerable body of theoretical and applied development in the evaluation field, especially among the work of people such as Huey Chen, Peter Rossi, Michael Quinn Patton, and Carol Weiss. These evaluation theorists and practitioners, along with a host of others, have focused on how to apply program theories to evaluation for decades.

The stream of work leading to the use of theories of change in evaluation can be traced back to the late 1950s with Kirkpatrick's 'Four Levels of Learning Evaluation Model'. Further progress and evolution has included Daniel Stufflebeam's CIPP (context, input, processes and products) and the widely used logical framework (log frames) or logical models which set out causal chains usually consisting of inputs, activities, outputs and outcomes coupled to long-term goals.

From 1970s, many literatures surfaced with more focus on the methods of economic analysis, and cost benefit analysis for evaluating the change impacted by the project investment. In this regard Amartya K. Sen (1972) in his discourse on economic evaluation emphasised that successful planning requires an understanding of the constraints that in fact hold and clarity about precise areas on which planners in questions can exercise effective control. Regarding limitation, he highlighted that effective control depends on his position vis-a-vis government as well nature of political, social and economic policies operating in the economy.

J P Gittinger (1982) provides direction for e evaluating agricultural project in developing countries with sound analytical tools to estimate the income-generating potential of proposed projects. The economic analysis in this system is based on "efficiency prices", i.e. prices which show the effect on national income, whereby national income is broadly defined as the total aggregate of the revenues realized on individual farms, in processing industries or other revenue earning entities and governmental agencies. E.J. Mishan (1986) in his book, *Economic Myths and the Mythology of Economics*, focuses on the popular myths and misconceptions that colour our understanding of economic issues in the process of economic change, and questions the assumption that free competitive markets can operate effectively in a rapidly changing, high-technology society. He focuses more on the efficiency in resource allocation and cost benefit analysis as vital input for effecting the desired change. Carol Weiss (1995: 3), one of the earliest popularisers of the idea, described a Theory of Change as "a theory of how and why an initiative works."

Guides and literature reviews on Theories of Change have been published by Comic Relief (James, 2011), DFID (Vogel, 2012), ESPA (Vogel, 2012), The Asia Foundation (Stein & Valters, 2012), UNICEF (Rogers, 2014), ODI (Valters, 2015), Van Es et al, 2015 and UNDAF (UNDG, 2017). There have also been many blog postings on the subject (e.g. Green, 2011; Davies, 2016). Among them, more recently in their review of the use of Theory of Change in international development, Stein and Valters (2012: 4) have explored various interpretations and concluded that despite the variety of views "**Theory of Change is most often defined in terms of the connection between activities and outcomes, with the articulation of this connection, the key component is the Theory of Change process**" (emphasis added).

According to the World Bank, (World Bank-TOC) "Theory of change is a detailed description of the mechanisms through which a change is expected to occur in a particular situation. A theory of change identifies the goals, preconditions, requirements, assumptions, interventions, and indicators of a program, providing important insight into and guidance on intervention and impact evaluation design."

Poverty Action Lab (Kigali, Rwanda 2014) indicates, "Theory of change is an on-going process of reflection to explore change and how it happens – and what that means in a particular context, sector, and/or group of people. ToC thinking – Structured way of thinking about change and impact to be achieved – Integrated approach to program design, implementation, Monitoring and Evaluation and communication."

According to UK AID Connect (guidance notes p 1), a Theory of Change describes how change is assumed to come about through intervention in a prevailing situation. The theory is usually laid out in a diagram showing the connections between interventions and outcomes – the causal pathways or results chains.

UNCEF (2014) theory of change explains how activities are understood to produce a series of results that contribute to achieving the final intended impacts. It can be developed for any level of intervention – an event, a project, a programme, a policy, a strategy or an organization. Details on the various tools of evaluation in TOC namely causal attribution, Randomised Control Trails, Quasi experimental design and method, Comparative case studies are available.

Recent years witnessed establishment of centres for theory of change in many countries. For instance, Centre for Theory of Change Japan (ToCJ). United Nations (UN Sustainable Development Group) Theory of Change Online (TOCO) is the only web-based software (no download required) that one can use to design and edit and store one's theory of change, learn the concepts of theory of change, and capture the outcomes, indicators, rationales and assumptions in an interactive graphical environment. With TOCO one can also export one's theory of change data into an excel editable worksheet which can be used as the basis for strategic planning, evaluation, systemic analysis of any organization and programs.

The review of literature on TOC studied, reveals among others two important facts.

- 1) In the earlier period, the change has been assessed as an end product of the project administering the evaluation tools like economic analysis, cost benefit analysis, RCT, quasi experimental design, and case studies, and

- 2) Over a period of time, the phenomenon of change that is taking place in different stages of implementation process of the project, is diagrammatically illustrated in the structured casual path/result chain and is subjected to a log frame based evaluation on the outcome of every project activity. So, TOC thinking has been moulded as structured way of thinking about the change to be achieved through an Integrated approach right from project program design/ planning, implementation, Monitoring and the end impact Evaluation and communication.

2.2. CONTRIBUTION OF THE PAPER

First, agreeing with DFID's observation on the remarks indicating the absence of perfect example of TOC, the present paper makes an attempt to find out the convolutions in TOC that lead to imperfection in selected sample of evaluation study reports already made, as it helps identification of the areas that require perfection in the application of TOC from micro level perspectives in future evaluation studies.

Second, as a pioneering attempt in the TOC framework for evaluation of the social project, the emphasis on positioning of the 'human behaviour' as a vital input in the causal path is prudently advocated with evidence-based illustrations (section 3 box 1, Fig.3, boxes 2 to 7). The rationale for such inclusion of human behaviour is as follows:

a) The TOC, advocated earlier has not adequately articulated human behaviour in TOC log frame although it is recognized as an influencing factor in the process ushering in change. In this regard the World Bank report on Mind, Society, and Behaviour (World Development Report 2015) describes more on the principles of human behaviour. The report shows that insights into how people make decisions can lead to new interventions that help households to save more, firms to increase productivity, communities to reduce the prevalence of diseases, parents to improve cognitive development in children, and consumers to save energy. This report may be useful to appreciate the human behaviour from psychological perspectives whereas from evaluative perspectives TOC demands some space for human behaviour in the casual path to show its influence on the input variable and its outcome at every stage of result chain in the process of change contextually.

Similarly, Amartya K. Sen (1987: xiii) points out 'Norms and behaviour should become more closely integrated in economic theory and in providing systematic means of doing so. Sen also points out the way to further analysis of more specific, alternative welfare criteria. In another instant, (Amartya K. Sen 1987: 74) 'The complex procedure of equating self-interested maximisation with rationality and the identifying actual behaviour with rational behaviour seems to be thoroughly counterproductive. All these observations are valid when general economic analysis on the interaction among different variables that influence the ultimate change impacted by the social projects. For application in TOC frame work, the human behaviour needs some space indicating how it is functionally linked to output, outcome and impact in the casuistry. This factor is not adequately incorporated in the TOC advocated earlier.

In this paper, the human behaviour factor is positioned in the casual pathway under TOC framework and the kind of eventualities occurring in the various result chain boxes viz. output, outcome and impact are highlighted. Further, evidence based such eventualities (positive or negative) are illustrated in the causal path. The authors believe that such positioning of human behaviour in TOC framework, would help the people concerned for identifying the nature of convolution caused by the behaviour variable and taking mid-course corrections related to human behaviour along with other influencing factors in the process of change as well.

A generic mapping of TOC from the literature referred to reveals that besides the need for clarity on the context and the programme goal, three important components of TOC include: (1) causal pathway, (2) log frame with the identified indicators, and (3) assumptions.

2.3. CAUSAL PATHWAY OR RESULT CHAIN

The indented results emerging from the programme activities are diagrammatically illustrated as follows in a causal pathway using the terms, input, output, outcome and impact as followed in Monitoring and Evaluation domain. This is the pathway to indicate the results caused by the activities of the programme at different levels in the result chain as illustrated in Figure 1.

Figure 1 illustrates logical connectivity among the components of causal pathway in the process of making the changes effected by the various project or programme activities towards attaining the intended intermediate results and long-term impact. In the case of poverty reduction programmes through Microfinance, among others two major

activities (input box) include capacity building and provision of microfinance (micro credit) to the poor in the targeted area. Once micro credit is sanctioned to the identified targeted poor, the immediate result is occurred as seen in output box in terms of number of mulch animals purchased for dairy business as illustrated. Consequently, the second result as indicated in outcome box in the causal chain reflect the changes in the level of income and employment of the targeted poor beneficiaries of the given intervention. Both the first and second results by and large are tangible and quantifiable indicators reflecting the intermediate results in the level of change intended towards reaching the ultimate goal of the project. In the given example of project, the outcome from dairy activity is found in terms of enhanced level of changes in income and employment. This change ultimately leads to reduction in level of poverty and increase in standard of living

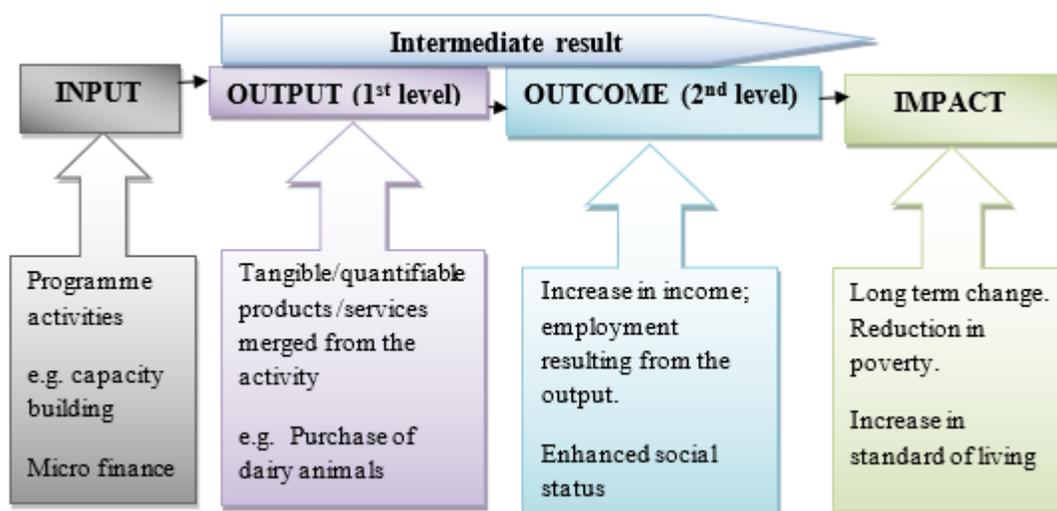


Figure 1: Causal Pathway / Result Chain

as indicated in Impact box. These changes which are intangible, mirror the goal of the intervention project - poverty reduction through microfinance in the long term.

Since the intended changes undergo a multiple process which are functionally inter-linked and are influenced by various kinds of activities involving different participants towards bringing the desired result, the result chain of such process is diagrammatically represented with boxes as causal pathway or result chain.

2.4. LOGICAL FRAMEWORK

Although these process of change involving many activities and human beings in both supply and demand sides are expected to deliver the intended results as conceived in the programme design, the expected level of output and outcome depends on the validation of assumptions conceived for the particular project concerned. It is therefore prudent to arrange to convert to a log frame taking into consideration of all the result boxes, the goal on the one side and the project objectives, suitable indicators and assumptions on the other side of the log frame as illustrated in Table 1.

The log frame table 1, explicitly highlights the significance of assumptions for every component of result chain. The fact on how does the theory of change with assumptions work at each stage in the log frame designed for the illustrated intervention - poverty reduction through microfinance has been elaborately presented in the following paragraphs.

Table 1: Log Frame for Theory of Change

Theory of Change	Objectives	Indicators	Sources of Verification	Assumptions (from lessons)
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Goal (Impact) ↑	Reduction in poverty	Profitable & Sustainable livelihood activity at poor HH level.	FGD with VIPs at block/district level	Sustainable dairy activities enabling changing reduction in poverty.
Outcome (Project Objectives) ↑	Enhanced income and employment	Quantum of income from the dairy business. Quantum of employment days due to engagement in dairy business (before & after).	Household survey Case study, FGD with VIPs at village panchayat level	No behavioural change for diversion of diary activities. Strengthening the dairy activity for sustaining increased income and employment.
Output ↑	Access income generating asset (like Dairy animals) production of milk	Number of dairy animals purchased. Quantum of milk produced and sold.	Household survey with before & after, data collection; Or longitudinal survey with control & experimental groups	Enhanced capacity in dairy farming activities accessed. Prescribed breed of milch animal. Intended level of milk production & marketing supported with backward & forward linkages.
Input (Activities)	Capacity building financial access	No. of training programmes. No of exposure visits. Number & amt. of micro credit sanctioned.	Branch visits /surveys/SHG records/ records at programme office/NGO	Easy access to bank finance. Willingness for dairy business. Adequate premise for cattle shed.

Note: (Illustration for the programme - poverty reduction through microfinance).

Source: Compiled by the authors.

2.5. THEORY OF CHANGE WITH ASSUMPTIONS

Social science researchers and evaluation experts make assumptions all the time in the process of making a desired change in their respective development activities. These assumptions can be about anyone or anything. But it is difficult to perceive, precisely know why it is happening. By and large a guess is made based on our imagination, past experiences or wishful thinking. According to Mario Sirota (Mario Sirota, M. D.): "We simply pause as we're jumping to our conclusions and ask ourselves, "How do I know this?" If the answer to that question is anything other than "I learned it through observing the evidence or through obtaining factual information, then we're at risk of making an incorrect assumption." If we just stop and do our own fact-checking before deciding that we know something, we'll avoid the trap of false assumptions and most likely prevent a lot of unnecessary difficulties for ourselves and others."

So, to say the key point is that assumptions need to be inspected in reality to understand the phenomenon assumed as a factual one.

On similar vein, it also holds good to apply the above concept of assumption for planning and implementation of any rural development programme and these kinds of assumptions need to be nullified in the casual path way so that the intended changes would happen sustainably.

In the case of assumption, there is an inevitable need to make assumptions explicitly in every component of the result chain and also contextually to cover external factors that influence the result in the causal pathway. The accomplishment of robust and sustainable project result at ultimate stage depends on the validation of all assumptions made in each stage cumulatively in the causal pathway. It is therefore discussed below elaborately the appropriate assumptions related to each casual chain boxes viz., Input, Output, Outcome and Impact in figure 2.

To investigate the fact on where is the gap or how does the gap emerge in the theory of change despite having well designed contextually in built with good assumptions as discussed above, section 2 exemplifies the fact drawn from the evaluative findings on a few rural development programmes, implemented in the recent past and critically investigate the functioning of the respective causal pathway and on the status of final outcome of these interventions more from theory of change perspectives.

3. WHAT ARE THE CHALLENGES IN THE THEORIES OF CHANGE?

Based on the normative principles, construction of a theoretical log frame for TOC would not be a difficult task depicting a portrayal of the process administration of various activities (input) towards effecting desired results (output & outcome) over a period of time. However, some challenges may remain inevitably impairing the casual pathway and resulting both positive and negative outcomes as well much against the intended goal. These hurdles emerging from the implementation process that is expected to bring forth the intended change, is investigated with many contextual variables viz., multiple activity processes & robust assumptions on one hand and dynamic behaviour of the actors engaged in both supply and demand side in such processes towards leading to the ultimate goal of the project.

An attempt has, therefore, been made in this section to critically map the convolution round the theory of change based on the evaluative findings drawn from the secondary data on the

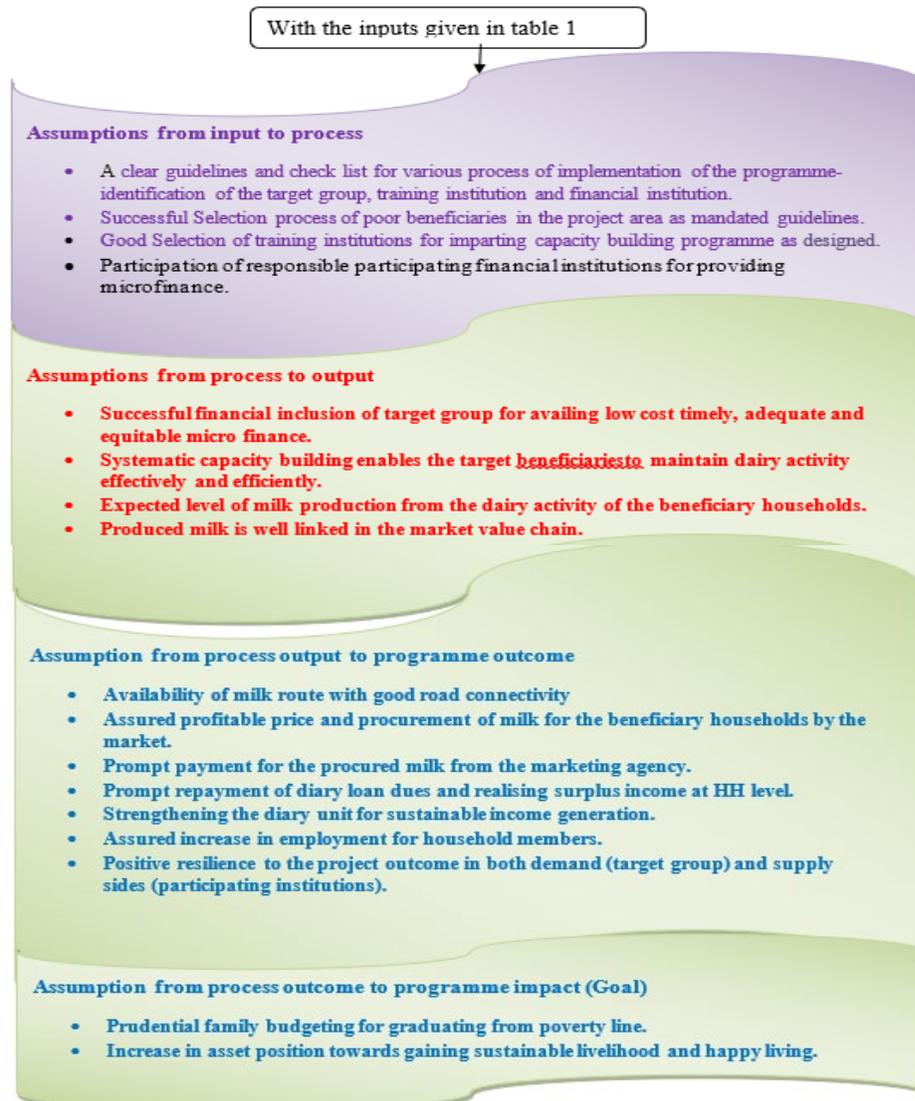


Figure 2: Assumptions in the causal pathways

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ultimate outcome (results) of some of the development programmes/projects/schemes, concerned with the rural development, poverty reduction, gender empowerment and financial inclusion more from monitoring & evaluation perspectives. This portrayal of complexities found in the causal pathway may help to appreciate the imperative need for making rational assumptions and hypotheses for new theories of change, based on the past lessons learnt from earlier projects and to facilitate mid-course corrections in the implementation stage itself towards effecting the sustainable positive results as desired goal of the project concerned.

A close perusal on the facts from table 2 on the convolution around the theory of change brings out four revelations.

First, in earlier rural development programmes like Food for work, IRDP, Tamil Nadu Women Development Project, no monitoring and evaluation on the various process of the activities that were undertaken in the casual pathway - input-output-outcome-impact have not been seriously done thereby various assumptions on the expected functioning of the input activities that are accountable principally in casuistry, have been taken granted both in supply and demand sides. As evidenced in the table, the assumptions are that the participating banks in the supply side provide loans to all the target beneficiaries and in the demand side the project beneficiaries utilise the sanctioned loans (performed) for the declared purposes (perceived) at the time of inclusion in the project. Reported data at output level in the causal path on number of loans sanctioned by the bank to the project beneficiaries alone is taken as indicators for monitoring the project achievement without taking into consideration on the actual process of utilisation of the loan at household level in the demand side.

Since these assumptions were not adequately evaluated during the process of project implementation and eventually, this kind of negligence resulted ultimately in impaired impact in terms of exclusion and partial utilisation at household level as evidenced in the first two programmes referred to in table 1. These kinds of intangible impacts have not been brought to surface since monitoring system is very much confined to physical output recorded in the bank records or in the digital recorded system by the implementing agency.

Second, although Monitoring & Evaluation of implementation process has not been attempted, periodical monitoring either monthly or quarterly or yearly has been performed as this kind of monitoring quantitatively the physical achievements of targeted units facilitated for the project team to follow the progress milestone. In the causal pathway (input - output- outcome- impact), the result of the activities (inputs) may not go beyond output box (input - output) which may

Table 2: Convolutions Round Theory of Change

Programme /	Reported Outcome/Result	Theories of Change		
		Assumptions	Indicators	Convolution Round TOC
1. Food for work programme (1977)	1. Inadequacy of depots run by Food Corporation of India. 2. Misuse/ malpractices by the contractors. 3. Benefits were short term and seasonal. 4. Benefits due to durable assets will accrue only in upper strata of the village community leading to further income disparities.	1. Adequacy of storing facility for handling the food materials. 2. Ethical behaviour of actors in the supply side. 3. Sustainable eradication of hunger in the long run. 4. Direct benefit to the persons who live below poverty line with sufficient wage.	No process monitoring with any result indicators. Periodical monitoring of the achievement of physical target (output) only. Evaluation was done after two years of implementation i.e. 1979.	1. none of the assumptions have been validated there by annihilating the causal path (input and output) with impaired results. 2. In the log frame, the assumptions are made with more focus on the changes of material input -output management in the causal pathway but vitally the behavioural aspects of the actors in both supply and demand sides that influence the casuistry is ignored or side-lined.

	5. Insufficiency of wage paid- the programme has therefore not fully eradicated hunger but lessened starvation of the poor.	Eradication of hunger and unemployment		
2.Integrated Rural Development Programme (IRDP) – (1978-79)	<p>1. No uniformity in the selection of target families.</p> <p>2.The families in the lowest income group were required to be covered first.</p> <p>3. No preparations of shelf of bankable schemes for different areas and not familiar with economics of various schemes.</p> <p>4. No assessment of availability of inputs, assets marketing and potentiality of the area. No follow up for organizing milk producers’ society.</p> <p>5. Onetime benefit of milch animal did not help the beneficiaries to cross the poverty line.</p> <p>Encouraging labour intensive orientation activities with adequate forward and backward linkages.</p>	<p>1. Poorest families are included under IRDP adhering some norms for covering the poorest first.</p> <p>2. Schemes suitable context situation are prepared considering with economic viability.</p> <p>3. backward and forward linkages are available for all income generated assets for which loan (+subsidy) is sanctioned.</p> <p>4. Sustainable graduations of the poorest from the poverty affected family.</p>	<p>No process monitoring with any intermediate result indicators.</p> <p>The programme was launched in 1978-79.</p> <p>Evaluation was done in 1983-84.</p> <p>Periodical monitoring of the achievement of physical target (output) only.</p> <p>For studying the impact,</p> <p>Sample beneficiaries’ selection done at state, district/block/cluster and beneficiaries’ level.</p> <p>At block level stratified sampling was done.</p> <p>Questionnaires administered for assessing the impact of the programme.</p>	<p>1. most of the assumptions have been nullified there by annihilating the causal path (input and output) with impaired results.</p> <p>2. In the log frame, the assumptions are made with more focus on the changes of material input -output management in the causal pathway but vitally the behavioural aspects of the actors in both supply and demand sides that influence the casuistry is ignored or side-lined.</p>

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<p>3. Tamil Nadu Corporation for Development of women Ltd. (1997) Publication, Terminal IFAD evaluation report 1998 (TCDW website).</p>	<p>1. Project impact Poverty impact According to AFC estimates, 64% of all project beneficiaries crossed the poverty line. Social impact Perhaps the single most striking result of the project can be seen in the remarkable increase in opportunities for disadvantaged women to come out of their homes and enter the public domain. Women have also acquired a new physical mobility and have been able to expand their contacts with banks, NGOs and district authorities.</p>	<p>1. Most of the loans would be used for crop improvement purposes. 2. The assumption that women would generally make wise choices because their expertise and knowledge of local market conditions was sound. 3. Institutional credit: the Indian Bank was responsible for providing credit to village women towards accessing low cost funds.</p>	<p>No process monitoring was done. Evaluation was done at the terminal year of the project. Periodical monitoring was done only on the achievements of physical target (output).</p>	<p>The following facts bearing on the ultimate change has been ignored: 1. Diversification of loan and financial exclusion impacted by banker's attitude. 2. Group Mortality/defunct, dropouts are witnessed in weak group causing exclusion. This fact has not been captured. All the above said convolution, occurring in the result chain may not facilitate for sustainability of change and reduction in inequity gap among the poor segment.</p>
<p>4. PUDHU VAZHUVU PROJECT (PVP) 2005-2011</p>	<p>1. PVP had significant and positive impact across the multiple outcomes. Women's empowerment and agency- both in the sphere of local public action and intra-household decision making- is a key area of impact. 2. PVP has been successful in reducing the debt</p>	<p>1. Key identification assumption is - that the self-selection into SHGs across project and non-project area is based on the same mechanism. 2. Group-based credit interventions can promote women's social capital and facilitate their collective</p>	<p>Evaluation on the impact of this inter-related set of interventions on the measures of women's empowerment, political participation and local civic action, and household well-being and indebtedness. Tools - Difference in difference method and Propensity score matching (PSM). Outcome indicators (PDO/assumption/hypotheses related Women empowerment. Any member in the household attended the last Grama Sabha. Participation in civic action has also been measured through</p>	<p>Although SHG members were key target group for the project, their key identification assumption- that the self-selection into SHGs across project and non-project area is based on the same mechanism- is reportedly problematic. In the context of adoption of participatory identification of the target poor (by Village Poverty Reduction Committee -VPRC) as in PVP, indicators are to be constructed based on local context and</p>

	<p>burden facing households, and in improving measures of economic welfare at the household level.</p> <p>3. SC households in PVP areas have more diverse livelihoods portfolio, participate more in the local deliberative forums, and report greater change on some measures of women's empowerment.</p> <p>4. Access to group-based credit can have positive effects on this commonly used matrix household welfare.</p>	<p>empowerment for public action.</p> <p>3. Group-based credit interventions empower women by improving their access to and control over resources; and therefore, improve their capacity to influence intra household decisions.</p> <p>4. Improving household access to cheaper credit can have several independent effects on household indebtedness</p>	<p>complaints lodged with the Grama Sabha.</p> <p>b. Women respondents voted in the last Grama Sabha elections.</p> <p>c. Women respondents attended the last Grama Sabha meeting.</p> <p>d. Responses to public action village level issue vignettes- women respondents approaching the VP president or the Grama Sabha.</p> <p>e. Responses to public action village level issue vignettes- women respondents approaching village SHGs. Skill & Capacity Building Responses to intra-household decision making vignettes on decisions being taken by the women in the households. Vignettes included questions on purchase of durable assets; education of children; and decisions on own occupation.</p> <p>Access to finance</p> <p>a. Proportion of number of high cost loans in total loan portfolio.</p> <p>b. Proportion of amount of high cost loans.</p> <p>c. Proportion of number of loans taken for non-farm livelihood purposes.</p> <p>d. Proportion of amount of loans taken for non-farm livelihood purposes.</p> <p>e. Proportion of number of loans taken for repaying old loans.</p> <p>f. Proportion of amount of loans taken for repaying old loans.</p> <p>Impact on livelihood and income</p> <p>First component of asset dummies principal component analysis:</p> <p>a. Standard measure of household welfare used household consumption</p>	<p>demographic for selection of target group.</p> <p>But in rural area multiple SHG models with varying indicators for the said purposes by different actors (Govt. SGSY) NGO, NABARD, Banks, WB (VELUGU. PVP. kudumbasree) leads to duplication of membership, and loans. It is important to note that if any new project is conceived either based on PVP model elsewhere or utilising the community managed infrastructure like MAKAMI, VPRC, SHG federation created under PVP etc. for further developmental change towards enhancing the wellness of the rural people. It is prudential to acquire Precise knowledge on the present status on these communities owned institutions instead of having assumptions on the sustainable functioning of the same as being done normally in theory of change for new project.</p> <p>Regarding indicators pertaining to 'loan', there are useful ones adopted. However, there is a need to have an indicator in the process of income generation stage to monitor on the number of loans taken up for income generation activities</p>
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			<p>expenditures, and asset indices.</p> <p>b. Consumption expenditures are also the most reliable way of measuring economic welfare, since income data is typically unreliable in rural development.</p> <p>c. Consumption expenditure i.e. Housing expenditures</p> <ul style="list-style-type: none"> • important expenditures for households • Livelihoods patterns are measured by reported occupations. <p>Average amount spent on repairs.</p> <p>d. Livelihoods -Proportion of skilled labourers within household.</p> <p>e. Proportion of individuals in business.</p> <p>f. (animal husbandry, petty shop, handloom, fishing, any other business).</p>	<p>(perceived) and number of such loan actually utilised(performed)for the sanctioned purpose. This indicator is useful for monitoring the output in process of income generation in the casual pathway - input and output. This process monitoring helps validate the conceived assumption pertaining to the relationship between loan and income.</p>
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not help in visualise the qualitative and intangible outcome in the short run and impact in long time to reflect the intended changes against the changes resulted actually. Mere quantitative output-oriented indicators do not reveal the true profile of the changes impacted particularly related to the assumptions on the poverty reduction, exclusion of target community.

Third one pertains to impact evaluation of the programme: Evidently impact evaluation has been carried out at the end of the project implementation as in the case of TNWDP or two years later as in the case of PVP, IRDP etc., for assessing the intended new change/incremental change effected by the projects at impact level administering tools like ' before and after', quasi experimental method using treatment group and control group. In some cases, longitudinal survey method adopting baseline survey and end line survey is conducted to study the level of changes influenced by the particular project on the same target groups/area.

These evaluation studies are certainly useful in learning the lessons on theories of change but mostly remaining as lessons to be learnt only and not to be considered seriously the complexities involved in assumptions and hypotheses related to intermediate results in the process implementation for the fresh project. Eventually, among the results, some of them happen to be negative results such as exclusion of vulnerable and inequality impacted by the projects remain continuous. However, some positive results occur that contribute new changes in the project area. Further, sustainability of these positive changes also remains questionable over a period of time. Perhaps this sordid phenomenon exists because of the fact that the conduct of project evaluation at the end has become a ritual as a mandatory obligation to funding agency as one of the conditionalities. So long as the past lessons from theories of change are not prudently admitted for the subsequent projects/programmes in development arena, the assumptions on the variables like sustainability of impact, inclusion, exclusion, equity as intended outcome from the new projects would become debatable. Further, it would lead to make a lot of compromises in the level of outcome results whatever be positive or negative involving huge investment for the said purposes, leave alone political convolutions over the causal pathways.

All these aforesaid critical observations boil down to a focal point which reiterates the imperative need to have M&E of implementation process to assess the complexities in fetching the intermediate result while validating the

assumptions in the causal pathways or result chain as it would go a long way in making mid-course corrections at every stage in the casuistry towards bridging in robust desired project results holistically as envisaged sustainably.

4. ROLE OF HUMAN BEHAVIOUR - A CINDERELLA IN THEORIES OF CHANGE

Having critically analysed the challenges in the theories of change, it is also equally important to appreciate how dynamic human behaviour both in demand and supply sides act as a driving force to alter the change in the causal pathway. Regrettably this behavioural dimension has been neglected or not been given importance, it deserves in the functioning of theories of change. Unknowingly or knowingly the dereliction on the fact that influence the behavioural dynamics in the theories of change has a deleterious effect on the assumptions and ultimate project result.

To quote “all macro generalizations of the scope of the culture of the poor have to be underpinned by micro specification of the cultural characteristics to be found in each locality.” (MIDS 2010: 150). Among the factors contribute for rural development in general and Human Development in particular, the cultural factors with attributes like behaviour, attitude and value system in the given target group in poverty sector that have the power of influence over the decision on utilization of inputs in the causal path, ultimately leading to improved standard of living and happiness at impact level. It is therefore, the interaction of Behavioural economics in the process of any development intervention need to be looked into and its implications in the casuistry.

All the rural development projects with the focus on poverty cure and women empowerment facilitate the target groups for gaining accessibility of development inputs with pre-determined purposes. However, in the case of development input such as micro credit (in the name of financial inclusion), the process of utilization of the micro loan is not prudently monitored and evaluated much against the assumption made on the function of micro credit at beneficiary household level.

It is, therefore, important to perceive that how behaviour of the poor client ultimately influences the actual utilization of micro credit for the contextual needs as per internal value system of the household /individual level (Home Credit India Ltd, 2019). That is to say there is a difference between intended behaviour and performed behaviour germane to utilization of inputs due to prevailing incompatibility of value system at household level more particularly in poverty segment living with varying degrees of vulnerability and deprivation. More particularly in rural arena, beside individual value system, community value system (social construct) could be more easily leveraged the livelihood decision than other institutional directions/counselling. Unfortunately, the latter one is assumed in the development theory of change and this phenomenon has a bearing in the nature of outcome of development and impact level on poverty and inequality in poverty segment” (Rengarajan 2013).

4.1. HUMAN BEHAVIOUR- AS AN INVISIBLE ASSOCIATED INPUT IN TOC

As discussed above, these kinds of perception on the dynamics of input utilization particularly micro credit at household level after access to it, assumes importance for prudential construction of theory of change for rural development programmes at block or sub district level planning to predict the outcome and impact beyond output level in the result chain.

Further, this kind of appreciation on the value of human behaviour also helps for performing due diligence in planning, implementation and monitoring & evaluation of programme that match the needs of the targeted poor community as intended. It is to be noted that such human behaviour is by and large driven by cultural factors contextually. It has therefore become imperative to discern the nature of interaction of cultural factors with the functioning of various inputs included in the development programme inputs in poverty sector. In this regard, an anecdotal evidence on the dynamic influence of the cultural attributes viz., behaviour in the decision-making process related input utilization and its eventualities in the result chain as in the case of a poor farmer’s household is illustrated in box 1 (Rengarajan 2011).

Regarding the Human behaviour attribute, it may be observed that its significance in decision making process has been evidently seen from the announcement of Nobel committee on the award of the Nobel Prize in economics in 2017 to Richard H. Thaler, University of Chicago, USA for his contribution to the field of behavioural economics.

Although the citation, made above, is only an anecdotal evidence, it tangibly illustrates a strong message for theory of change. That is to emphasize on how the culture of poverty influence the human behaviour, driven by

multiple deprivation and vulnerability, does work resulting varied implications of microfinance input much against the planned intention of use of credit in the result chain at the poor household level. Contextually, the right thing, predicted first has been compromised with wrong thing subsequently driven by incompatible value system as in the above case. In this regard to quote Amartya K. Sen, "the suspicion is aroused that rejecting the view of rights as unrelaxable deontological constraints might have the effect of throwing the baby out with the bathwater. The intrinsic importance of rights may get compromised by

Box 1: Influence of Human Behaviour on the CREDIT Input Utilization and its Outcome and Impact in the Result Value Chain at Household Level

"In the case of a small farmer, his predictive financial decision through micro credit access is to apply more inputs for his crop cultivation to get more output from his farm, something he values at the time of applying for credit. It would be interesting to perceive what happens after micro credit access or reaches at the poor farmer's household? In the illustrated case, after financial access, the internal value system (**predictive behaviour**) is shifted subsequently at household level that is from usage of the credit for purchasing of farm inputs at first to the subsequent one viz., medical treatment for his wife's malarial disease (**performed or actual behaviour**) resulting negative consequences in the causal path such as disposing his cattle for repayment of loan in the reference case. In banking parlance, it is a clear case of misutilisation of credit since the intended or declared purpose in the loan application (farm inputs) for which loan is raised, is defeated and it is unethical too. However, ethically from farmers' perspectives, medical expense is an immediate necessity to take care of his wife's health and it deserves inevitable priority value to him contextually. Here, it may be noted that as the stability of internal values of the client is more influenced by the external factors like currently prevailing welfare (health) situation of the individual and other family members in his household/society as well thereby shifting intended values (predictive behaviour for farm inputs) to performed values (actual behaviour for medicine) later."

"Further, in this case, another dimension of human behaviour is also cognizable. That is to sense the prevailing incompatibility of values at individual level since the client as a sincere borrower may wish to behave in utilizing the credit for farming purpose and repay the loan out of farm income (impacted by increased output) ethically to the lender as initially intended and at the same time contextually, as prudent earning member of HH he also wishes to spend loyally for medical expenses for his family member/s for their survival on priority. This kind of field realities at micro level with the conflicting social situation after financial access coupled with incompatibility of values at client level, indicate that human behavioural changes as per the contextual needs in the demand side on one hand, and structured product like micro credit for multiple utility options in the supply side on the other at household level,

Note: This kind of integrated inputs that meet the compatibility of values at household level may also ensure self-interest welfare maximization in true sense of utilitarianism principles.

Source: V. Rengarajan, Keynote Paper, November 26-28, 2011.

consequential counter arguments and such compromises may be ethically indefensible, since they make the rights flimsy and unduly contingent" (1987: 74).

This kind of ethically inter twined social situation merits the attention of social science researchers to investigate further ways and means to enable smooth intervention process and sustained human development as

well. In this context perhaps this kind of non-tangible phenomenon cutting across the casual pathway demands two factors: (a) formalisation of appropriate assumptions based on the past lessons and (b) prudential intervention equipped with result-based process monitoring and evaluation as an integral part of project component. Otherwise, the candid eventualities of the project, remain non-transparent which is harmful in the growth process in rural area.

4.2. UNEXPLORED EVENTUALITIES IN THE THEORY OF CHANGE

As already pointed out, a mere input-output analysis in terms of number of poor women covered with total credit amount accessed would not reveal the candid eventualities in the outcome and impact levels. The socio-economic status of poor women who are included also remains non-transparent during the post inclusion period except revealing the condition of a debtor having the liability for repayment of loan dues to the lending institutions. However, this phenomenon raises a question that when reportedly 'a good number of poor women accessed credit and the recovery performance of 100%' (Tiruvallur District Human Development Report, 2017:154) why we are not concerned with such negative eventualities referred to above occurred at outcome and impact level instead of one with increased income and reduction in poverty and deprivation as logically assumed at the time of access to credit or inclusion? The above phenomenon, indicating both positive and negative outcome and impact hypothetically could be illustrated in the result value chain of the credit linked programme as shown in Fig 3.

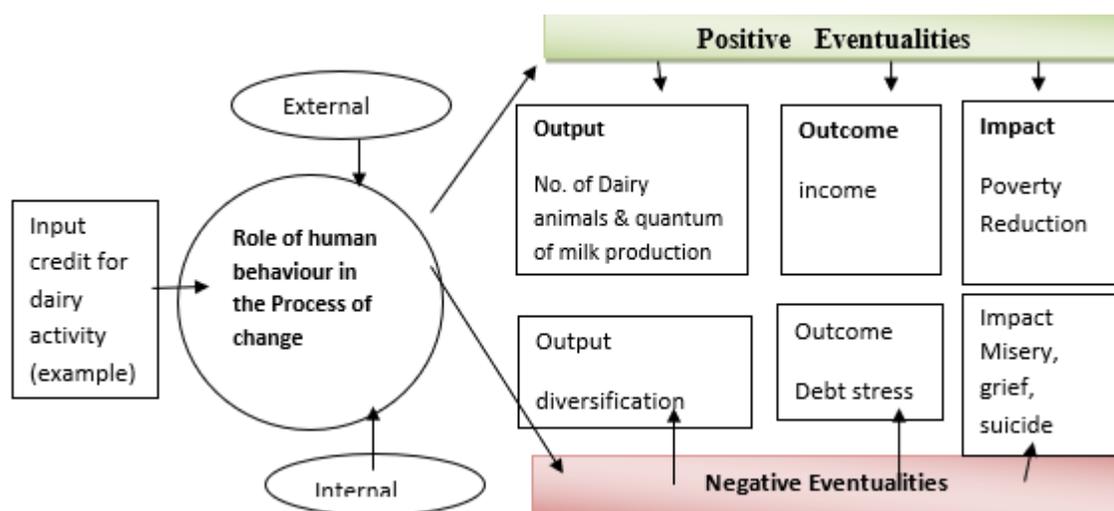


Figure 3: Theory of Change - Result Value Chain

Figure 3 amply demonstrates the positive and negative eventualities impacted by the financial inclusion through micro credit intervention. This phenomenon takes place in poverty segments in particular since the behaviour of these target group in rural area is bound to be driven by the local value based cultural factors leading to impaired results against the intended result from the project. This unchecked phenomenon in the process of change - from financial input (micro credit) to intended physical asset as output (farm input or dairy animal) is harmful one in the theory of change signalling to ensure imperatively a result-based process monitoring along with end line evaluation of the project.

4.3. ANECDOTAL EVIDENCES OF NEGATIVE FALLOUTS

The presence of these kinds of nullifying impact from micro credit related programme suggests that the assumptions on the positive correlation between micro credit and income generation and poverty reduction are blindly conceived in planning stage and remain feeble to be nullified due to influence of various factors like social construct, human behaviour, contextual cultural values which are neglected as argued earlier (box 1) during the implementation stage of the project. Ironically, these kinds of gloomy outcomes are hardly brought to surface in the formal monitoring system which is by and large confined to capture the progress of physical input and output. Thereupon, the urgency on the recognition of the above fact in designing the causal pathway and on the obligation

to have valid assumptions for any rural development projects, need to be explicitly perceived from various kinds of negative eventualities witnessed in microfinance projects in the recent past. For this purpose, the detrimental outcome and counteractive impact in the causal pathway from the perspective of both demand and supply sides as portrayed in the media are presented in boxes 2 to 4 (V. Rengarajan 2013: 52-53).

All these incidences referred to in the Boxes from 2 to 4 are the factors that caused a negative outcome in the rural economy in the manifestation of a micro financial crisis (V. Rengarajan 2013:48-49) in the microfinance-poverty sector. These kinds of consequential negative phenomenon need to be portrayed in the result-based process monitoring system as it would help awaken and alert the policy makers and planners concerned with the theory of change through microfinance intervention in rural area for making corrective measures in the implementation process of product (input). Ironically, despite lessons learned from these crises in many places globally in Microfinance industry, this kind of sordid situation pervades due to fallout of the undesirable consequences. However, such a consequential phenomenon facilitates to assert the functional relationship between input-credit in particular and behavioural pattern at household level contextually, should be ensured ethically and productively stronger than the relationship between conventional pattern of isolated credit input and gender empowerment.

Box 2: Multiple Microcredit Outcome and Impact- Demand Side

In the district of Krishna (AP) about sixty people, all IMF (MFI) clients of the private sector died in the last few months. Last November, a couple committed suicide by consuming cyanide. Kumari borrowed 25,000 rupees (\$500) from an IMF for her husband's business. To compensate for the financial difficulties, encountered by her husband, Kumari takes two new loans for the same amount from other two IMFs. The situation becomes difficult and the repayment of the loans turn to be impossible. With the pressure from the other group members increasing, the couple committed suicide.

Box 3: Coercive Recovery of Micro Credit from Supply Side – Outcome and Impact in the Demand Side

Not far from there, Renu, died by asphyxiation while she hid in a *rice drum* to flee the visit of the credit agent who had come to collect the monthly loan payment. Some week later, a farmer saves two SHG women who hung themselves from a tree in time.

Box 4: Coercive Recovery from Supply Side – Outcome and Impact in the Demand Side

In another place, it is quoted "the controversy in connection with the IMF's methods of recovery took a new dimension on Wednesday, April 5th, when a SML client hacked a credit agent to death. Arrested by police, he explained why he could no longer bear the harassment and the pressures exercised by the IMF."

5. CONCLUSION

Theory of Change has been a useful evaluation tool for social science research involved in both academic work like PhD on social issues and social oriented development project as well. However, although the idea of using a Theory of Change as an aid to evaluation, has been around for a long time, interest in its use has been especially notable in recent years amongst international development aid organisations and public authorities who make huge investments in social oriented interventions more focused in rural area.

A critical overview on TOC applied in earlier rural development programmes mainly focusing on poverty cure, women empowerment and financial inclusion reveals that there are convolutions that need to be challenged towards ensuring sustainable results ultimately. This apart there are lacunae persistently existing in the mainstream approaches for TOC, adopted for rural development projects in general and more particularly the intervention pertaining to women focused micro credit linked poverty cure in rural area. Most importantly, the monitoring system

does not extend beyond output level in the causal path revealing only the physical achievement vs. target. Conspicuously, human behaviour aspect which is primarily influencing the course of change at household level is ignored in existing M&E system for rural development projects.

In view of the above observations, following key constituents for the refined theories of change are suggested below for enhancing research integrity and also for accomplishing the desired goal of the programme sustainably.

1) Need for process monitoring

Taking cognizance of lessons from the implementation earlier rural development programmes, robust assumptions need to be made while planning and to be checked in reality during implementation through proper process monitoring of the results emerging from each and every activity (input) involved.

2) Result based monitoring and evaluation beyond output in the causal path

At every stage in the causal pathway, process and progress with intermediate results using the output and outcome indicators are to be monitored and evaluated for checking the contribution of every input activity in terms of assumptions made and for enabling midcourse corrections towards achieving the ultimate project goal and objectives. Recently started TNRTP in Tamil Nadu has unique component of TOC inbuilt with RBM&E for enabling to monitor the intermediate results at output and outcome levels in the causal path and have mid-course correction and to evaluate the ultimate impact through baseline and end line surveys. This kind of refined theory of change need to be adhered scrupulously in all the rural transformation interventions having social mission.

3) Transparency in revealing the outcome and the impact

Mere monitoring the physical input-output achievement do not reveal the hidden positive and negative eventualities. Result based monitoring and evaluation need to extend imperatively beyond output stage to outcome and impact stages in the result chain to make the eventualities more transparent for making value judgement on the values of investment made.

4) Inclusion of human behaviour as a vital input in theory of change

Every activity in the project right from planning to monitoring & evaluation, human beings perform both in demand and supply sides. Contextually, in rural arena, the cultural attribute viz., human behaviour assumes the most influencing variable to decide the course of change in the causal path at household level being the fact remaining a Cinderella in theory of change persistently. It is therefore argued for inclusion of human behaviour of players involved in the process of change is an imperative need as it would help perfecting the assumption related human being and improving the system that facilitate smooth transformation as intended.

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CONFLICT OF INTEREST

The author have declared that no competing interests exist.

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