

Chapter 7 : GENERAL CONCLUSION AND POLICY IMPLICATIONS

7.1 The research in a nutshell

7.1.1 Background and research focus

The present research titled “A Big Push to Break Rural Household Poverty Trap? Millennium Villages Case Study with Emphasis on Agriculture” had two main entry points.

First, as a multisector undertaking, agricultural interventions are among others in the MV package. Yet, based on the question as to why agriculture based countries, communities and households are the ones that exhibit high levels of poverty both absolute and relative, a hypothesis was formulated that agriculture interventions outcomes are inclined to benefit the initially non-poor or moderately poor households. The alternative hypotheses include the fact that agriculture might have been neglected by those countries, communities or households and the fact that such countries, communities and households are still poor as part of the normal structural transformation process. However, these alternative hypotheses could not stand the literature that shows the early recognition of the role of agriculture to poverty reduction and subsequent emphasis on developing the same. As well, it is questionable whether the structural transformation process is a strong explanation given that not only the countries, communities and households in question have taken too long for the transformation to happen but also it is not a strong argument that all countries, communities and households have to go through the same process towards development. Thus, remaining with the aforementioned first hypothesis, the MV offered a good case study in analyzing the heterogeneity of agricultural intervention outcomes. Namely land productivity, technology adoption (improved seeds and chemical fertilizers) and adoption of business oriented agriculture (commercial agriculture and high value crops) were considered as outcome variables. Thus, it was possible to understand the extent to which some community members, depending on their pre-intervention socio-economic status are more likely predestined to remaining

poor (absolute) or at least to remaining behind (relative) despite the massive agricultural interventions.

Second, having chosen the MV as the case study and given the waves of criticisms it is subject to since its birth, claiming to be a new community based approach to breaking the household poverty trap; as quickly as within 10 years through multisector and simultaneous interventions, the study aimed as well to dig deeper into the self-claimed new approach. This is because apart from the MV own reports portraying tremendous achievements, much of the criticisms were not based on any substantiated research based facts from the approach on the field. It is a déjà vu, top-down approach, doomed to fail like its similar predecessors, claimed the critics. Thus, the research addressed the question as in what the MV approach is new compared to its predecessors. Specifically, the MV was compared and contrasted with the Integrated Rural Development (IRD) programmes, Social Investments Funds (SIFs) and Village Earth (VE) models, which models also made bold headlines. Aspects for which the MV was found to be similar to those previous anti-poverty approaches were highlighted, likewise the aspects of contrast and after which the MV is arguably promising. As well, the research addressed the question as in what and to what extent the MV interventions constitute bottom-up undertakings. While it is recognized that it is hard to conceive a 100% top down or bottom up approach as any intervention would lie in between the two extremes, either closer to being a top down or a bottom up (Larrison, 2002); the present research appreciated, through a number of evidence, the MV's leaning side. The hypothesis here is that the more an anti-poverty approach is leaned toward bottom-up, the more it is likely to succeed. Given that the MV is poised to being scaled up, all these questions were fundamental as there is no point in scaling up an intervention without independently ascertaining that it is not business as usual.

7.1.2 Theoretical considerations

The MV was rightly qualified "eclectic" (Carr, 2008), namely that it does not base its case on a single development theory, rather that it has "something for everyone". It is

built on the modernisation theory (Carr, 2008); it is a market oriented development approach (Broad and Cavanaugh, 2006); it has some elements of Sen's capability approach (Diepeveen, 2008); it is built from poverty trap and big push theories (Sachs *et al.*, 2004; Sachs, 2005; Easterly, 2006a; Carr, 2008; Cabral *et al.*, 2006). Unquestionably and as highlighted in the literature, the MV has one or the other features of any of these theories. However, given the predominance of the literature referring the MV to poverty trap and big push, the present research as well discussed it under the umbrella of the latter theories.

Basically, the tenet is that the poverty stricken communities and households are trapped in self reinforcing negative forces, all related to different aspects of poverty. That is ill-health, illiteracy, lack of access to basic infrastructure and services, low agricultural productivity, lack of off-farm business opportunities, etc. Briefly, poverty is multidimensional and dynamic. In this context, argue the MV pioneers, there is no single intervention that can reverse such a situation. Multisector and simultaneous set of interventions is the only way to reverse the situation. This is where the big push comes in.

The original idea of big push theory is dated in 1950s and owed to Rosenstein-Rodan (1943) who prescribed it for the Eastern and South-Eastern Europe regions. While the then idea was about massive investments in light, labor intensive industry, the contemporary version of the big push model and to which the current research referred to is about investing simultaneously across different sectors to push the intended beneficiaries beyond the threshold after which they cannot fall back again. That is breaking the poverty trap. There are specifically some bottlenecks that the big push addresses: The hidden unemployment in agriculture sector through raising agricultural productivity and promoting jobs in off-farm activities; the shortage of capital through massive fund mobilization efforts; threshold effect through ensuring that interventions are adequate enough to push the beneficiaries above a certain level after which they can grow on their own; coordination problem through coordinating the simultaneously implementation of an array of interventions, each relating to a facet of poverty; the narrowness of markets problem through increased demand itself a result

of increased income from different productive activities. The individual achievements across different sectors of intervention create something bigger than just the sum of those individual achievements. This is the synergetic effect which is at the core of the MV.

While researching on the synergetic effect was included in the initial plan for the present research, it could not be done due to the refusal to access secondary data collected by the MV as part of its monitoring and evaluation function. Focus was thus put on the agriculture sector, specifically to study the likely heterogeneity of intervention intended outcomes depending on the pre-intervention socio-economic status of the beneficiaries. On the same, there is competing theoretical and empirical literature as to why agriculture development is or is not pro-poor by default. Agriculture development comes along with a network of backwards and forward linkages; all with positive effects on national economy, rural economy and farm economy. Moreover, the fact that agriculture is a bigger sector of the economy in terms of the participation of the poor people in LDCs makes it a pro-poor sector by default (Christiaensen *et al.*, 2011). However, on the other side, the theory and empirical literature reveal other factors that denies agriculture sector the by default pro-poor feature. Those factors include namely the fact that agriculture development is biased against small scale farmers who got caught up in subsistence farming (Irz *et al.*, 2001); the increasing degree of openness; implying a higher degree of tradability of agriculture crop in a way that the growth of agricultural output might not lead to the reduction of real food price (Ellis, 2005; Dercon, 2009). These is as well an argument by some agro-pessimists that agriculture sector is an inherently a low productive sector (Dercon, 2009; Gollin, 2010); hence giving this as an explanation as to why agriculture based countries, communities and households exhibit high levels of poverty. Also mentioned is the problem of accessing and wining local, regional or international markets by the poor who arguably are less competitive. Such a situation condemns them to remain into subsistence farming (Ellis and Freeman, 2004).

In view of the contradicting literature and having spotted the MV as a case study whereby the entire villages were exposed to interventions including agriculture

interventions, the present research engaged, among others in studying the effects of pre-intervention socio-economic status on the agricultural intervention intended outcomes. This is a novel contribution to the research area given that other studies have focused on impact evaluation research using various methods. For example, the MV evaluation research entails comparing treatment (villages covered by the interventions) and control group (selected villages not covered by the interventions) on various variables; what they refer to as “a non-randomized controlled assessment” (Pronyk *et al.*, 2012). Another MV project in Ghana was designed along with the evaluation protocol whereby the “difference in difference” evaluation method is to be used (Masset *et al.*, 2013). Therefore, the MV evaluation per se, despite not being timely as for now, would not have contributed substantially. Contrary, the present research is limited to the treatment group. Furthermore, the MV being a new approach that started only seven years ago, no other studies have ever engaged in comparing and contrasting it with other approaches that made headlines in the past with the ambitious aim of making poverty a bygone. It is even from such an ambitious goal that the MV was dubbed a *déjà vu* (Easterly, 2006a; 2006b). However, questions on what it is a *déjà vu* and in what it is different were not addressed. Likewise, the claim of being a bottom-up approach was never questioned and yet, based on the MV as a prescription to achieve the MDGs, it being a bottom-up is questionable. The present study engaged in researching the bottom-up and top-down features of the MV as the same; among others, bear the fruits of its success.

7.1.3 Methodological considerations

Given the nature of the research questions the study aimed at addressing, the present research made use of mixed methods, namely quantitative and qualitative. Both primary and secondary data were used. Collected secondary data are related to the categorization of households into the pre-intervention socio-economic levels namely the non poor or moderately poor and extremely poor households. These data were mainly obtained from archives held by the cell leaders and wherever needed, supplemented by recalling exercise. As well secondary data were obtained from different document including official reports, research papers, websites, etc. Primary

data were collected through a household survey using a structured questionnaire administrated to 240 households and through experts and informant interviews.

Data analysis was conducted using various methods. For the research questions on the heterogeneity of the interventions outcomes subsequent to the pre-intervention socio-economic status, multiple linear regression and logistic regression were used. SPSS was used for statistical analyses and tests. For other research questions namely on comparing and contrasting the MV with selected other anti-poverty approaches and on studying the bottom-up features of the MV; respectively comparative and content analysis were used.

7.2 Summary of findings

The research findings are wide-ranging. To start with, descriptive statistics revealed some noticeable and consistent differences between the two groups namely the pre-intervention extremely poor and non poor or moderately poor households. Statistics are consistently in favor of the latter.

- Analyzing the boxplots (6.1.1 and Appendix 3), the initially non-poor or moderately poor households have on overall more variability in their productivity score compared to the initially extremely poor households. This was indicated by the 75% productivity scores of the initially extremely poor households falling below where the 50% productivity scores of the initially non poor or moderately poor households fall.
- Agricultural activities for the initially extremely poor households are relatively less dynamic compared to the initially non-poor or moderately poor households. This was indicated by the fact that, for all the four crops analyzed, the percentage of the initially extremely poor households that claim to have grown or harvested them during the season under review was consistently below that of the initially non-poor or moderately poor households.
- Considering the two groups separately, a bigger proportion of the initially non poor or moderately poor households – as opposed to the initially extremely poor households – claim to have been involved in the pre-intervention preparations,

respectively 38% against 23%. This may indicate some level of elite capture though it was denied by the MV high level officials with whom interviews were held.

- While 48.3% of the initially extremely poor households claim that the MV did not do or is not doing much in solving their most challenging poverty related problems, only 35% of the initially non-poor or moderately poor households claim the same. In other words, the work of the MV is relatively praised in the better-off members of the community.
- On overall, the priorities as listed by the households differ from the MV intervention components. It was interesting to notice that interventions in the social sectors namely education and health were not top priorities of the households, irrespective of the sub-group considered. This was interpreted with reference to the MV model which was designed as a big push aiming at achieving the pre-defined goals; the MDGs. As such, there was a complete set of interventions that had to be implemented. This came at a cost of including interventions that were not top priorities in the lenses of beneficiaries.
- While still on beneficiaries' priorities, it was interesting to notice that their top priorities are namely interventions in directly productive sectors / activities and in income generation activities such as farming, cooperatives and business development, credit schemes, etc. However, the latter were given relatively less attention, at least in terms of budget allocation, as opposed to interventions in health. Arguably, if the decision were in the hands of the beneficiaries, it is more likely that they would have privileged directly productive and income generating sectors and activities.
- The status-quo still prevails. All the sampled households claimed to be still entirely depending on rain-fed agriculture. It was expected that an intervention aiming at fighting poverty in agriculture based communities would include massive irrigation projects and water harvesting. It should be noted that the latter was done but on a very small scale in such a way that even households that are closer to the water ponds could not claim to be depending on them for their farming activities. On this, the MV senior official contended that Mayange Sector cannot rely on agriculture because it cannot be competitive with other regions that are better suited for

farming activities. However, such a stand highlights element of contradiction because one would question why agricultural interventions were in the first place included in the intervention package if it was believed that it is not the right intervention for Mayange dwellers. Arguably, such a claim may have been triggered by relatively poor performance registered in agriculture compared to achievements in other interventions, especially in health.

Briefly, noticeable from the descriptive statistics is the disproportionate performance and disproportionate perceptions on the interventions and on the role of the MV. Consistently, the initially extremely poor households are the poor performers or shade a rather grim image on the interventions or on the role played by the MV.

Beyond the descriptive statistics, regression results led to the same conclusion. Specifically on the question related to the heterogeneity of intervention intended outcomes, the research consistently found that agriculture intervention intended outcomes were inclined towards the initially non poor or moderately poor households. This finding was consistent for all; productivity, technology adoption and adoption of business oriented agriculture and for all crops included in the analysis.

Considering productivity maize, it was found that other things being equal; the initially extremely poor households are expected to produce 54.9% lower in kilos than the productivity expected from the initially non-poor or moderately poor households. For cassava, the initially extremely poor households are expected to produce 49.8% lower in kilos than the productivity expected from the initially non-poor or moderately poor households. For groundnuts, the productivity difference in kilos is 27.89% also in favor of the initially non poor or moderately poor households. For beans, also in favor of the initially non poor or moderately poor households, the difference in kilos is 36.99%.

However, it should be noted that apart from findings on cassava and maize (though with one influential case), the generalization of findings above sample on other crops is not without issues due to failure of the models to meet some of the regression assumptions. Specifically for land productivity groundnuts, the assumption of normality of residuals was not met as the test did not provide strong evidence to confirm the

compliance. For land productivity beans, there were problems of influential cases, namely four cases out of 207; with absolute value of standardized residual greater than 2.5; corresponding to 1.9% which is far above the limit of 1%.

On technology adoption, specifically on the adoption of improved seeds, the analysis found out that other things being equal, the odds of adopting improved seeds decreases by 88% for the households that started extremely poor. For adoption of chemical fertilizers, the odds of adoption decreases by 97% for the initially extremely poor households. The odds of adopting high value crops as well decreases by 97% for the initially extremely poor households while the odds of moving away from subsistence agriculture is reduced by 86% if the household is initially extremely poor.

However, generalizing the above finding beyond the sample is to be cautious as there were cases that the models predict poorly (outliers) or which may have exerted an undue influence on the models. There were eight of such cases for adoption of improved seeds, four cases for adoption of fertilizers, seven cases for adoption of high value crops and seven cases for the adoption of commercial agriculture. As they belonged to the intended sample, there was no reason of excluding them from the analysis.

Even though, the research reached the conclusion that the initial poverty level is a highly significant predictor of intervention intended outcomes namely agricultural productivity and adoption of agricultural technology and business oriented agriculture. The initially extremely poor households are most likely to perform poorly. This implies that while the absolute poverty might be reducing for both the initially extremely poor households and the initially non poor or moderately poor households (though at different proportions), relative poverty for the initially extremely poor households might be increasing. This is true given that inequality between the two groups get larger and larger as the initially non poor or moderately poor households see their incomes increasing at higher rates than the increase (if any) achieved by the initially extremely poor households. Put in other words, there is no convergence of incomes between the two groups.

On the question of whether the MV is different from other previous ambitious anti-poverty models, it was compared with SIFs, IRD VE models.

With regard to the MV versus SIFs, the data collected led to the finding that the former is not a *déjà vu*. While the SIFs model is demand driven, the MV can hardly claim that feature. This is because for the SIFs, beneficiaries engage their intellect to become beneficiaries while for the MV, beneficiaries are made in the sense that interventions (at least components of interventions) are brought to them packaged by the people outside the villages. Hence, it is argued that the SIFs model follows an advanced form of bottom up methodology as opposed to the MV model. Furthermore, implementation arrangements are different. SIFs model appears to segregate tasks to different stakeholders (SIFs as funds, communities, contractors, donors, etc). This is not the case for the MV whereby most of the work; i.e. planning, implementation, monitoring and evaluation, is done by the PMO.

In relation to the MV versus the IRD, data provide compelling evidence that led to the conclusion that the former is a *déjà vu*. There are numerous similarities ranging from motives (namely disillusionment), goal (namely breaking the poverty trap once for all), eclectic theoretical background, multisector and simultaneous design, view of development as a system, being supply driven, the predominance of the PMO, enormous resources at stake, being goals and methodological approach and using tested and trusted technologies. Having said this, it was noted that an element that can make a compelling distinction between the two models is the difference in the current social, political and economical environments of the MV and the then environment of the IRD. Contrary to when IRD was being implemented, there is a remarkable advance in technology, high level of decentralization and global concerted commitments to fight poverty with specific goals; namely the MDGs. Arguably, this is the supportive environment upon which the MV can build to succeed along with learning from the IRD experience and implementing corrective measures.

In relation to the MV versus VE model, once again the parallelism between the two led to the conclusion that they are basically the same, especially with regard to the organizational design. For both, the basic unit for interventions is the village. For the

MV, a group of villages forms a cluster which is paralleled to the Resource Access Unit for the VE. The PMO for the MV is the parallel of the Service Center for the VE. The Science team at Columbia University for the MV is the parallel of the International Service Center for the VE. On top of having the same hierarchy, they all view development as a system and hence prescribe a holistic approach. With the aim of providing evidence of what the models can achieve, they all put strong emphasis on the Monitoring and Evaluation and rely and intend to implement tested and trusted technologies. Briefly, the MV, IRD, and VE models have remarkably more in common and hence the MV can hardly claim to be groundbreaking.

Given that the village based interventions are designed in a way to start small as pilot projects and then scaled up, an attempt was made to understand the reasons why the level of success at pilot level is often not achieved once interventions are scaled up. Data led to three issues that come along with scaling up. The same were summarized as, first the shrinkage of bottom-up features; second, the lack of preparedness for conventional institutions (as opposed to PMOs) and third, beyond the reach resource requirements. Whether the MV can and will survive those issues is a subject of another research.

The research as well investigated the extent to which the MV is a bottom-up endeavor. Findings on the same were introduced while comparing it with other anti-poverty approaches. Going beyond comparing the approaches and focusing on the bottom-up features of the MV, it was found that while there are pre-defined components of interventions, the MV is successful in contextualizing the interventions to local context. However, given that the contextualization is done within the pre-defined components (in line with the MDGs), the final package ends up including interventions which are not necessarily the priorities of local dwellers in terms of their pressing needs. This corroborates with other related findings namely that the contribution of intended beneficiaries in the design (at the planning phase) of the MV interventions was disproportional between the initially extremely poor households and the initially non poor or moderately poor households; the proportion of the former reporting to have been involved in the design being relatively smaller. As well the initially extremely poor

households, relative to other group, badmouth the role played or being played by the MV in addressing their pressing needs. All the above findings led to the conclusion that the MV is dominantly a top-down endeavor as the participation level required for bottom-up model was not achieved at the planning phase; namely the decision making and initiating action (refer to 3.2.2.2)

Nonetheless, it was found that the MV approach rather opted for a model that can be called 'gradual participation'. It does this through incubating and grooming community institutions aimed at taking over the interventions as it pulls out. For the MV cluster in Mayange, the community based NGO in the name of Millennium Community Development Organization (MCDO) is and will serve the purpose. Arguably, notwithstanding the likely elite capture that comes along with such "development brokers", the MCDO can sustain the MV quick wins in Mayange.

7.3 Policy implication and future area of research

7.3.1 Specially targeted interventions at the onset of the project

As it is the finding in the present research, the pre-intervention extremely poor members of the community are pre-disposed to perform poorly if the entire community is exposed to the same agricultural interventions. It is in this regard that special interventions should be targeted for such members of the community at the onset of the intervention project. Special interventions would include measures like securing farming contracts for such people, longer grace periods to refund inputs if not free, advocacy for access to land or lease land for the landless, a commitment for food support in case of crop failure to appease their risk averse behaviors, and other social support commensurate with individual cases. While the MV as well planned some special supports, it did so ex-post. That is after realizing that there are households which, despite the interventions, were making no or very little progress.

7.3.2 From pre- to post-definition of intervention components

Pre-defining components of interventions, with pre-defined goals without prior consultation with the intended beneficiaries should be avoided. While such a design

might include much of the needed interventions, it does so at a cost of as well including components / interventions that are not of high priority with regard to the specific needs of the targeted beneficiaries. This might have a negative effect or even prevent achieving much needed on high priority issues because resources have to be shared across all the interventions within the package. Yet it is out of debate that resources are always limited while needs are unlimited, an even salient reality in LDCs. Therefore, limited resources should be invested only where they are much needed. MV did not achieve this because of the predefined components in the name of achieving all the MDGs. This is what one MV official hinted to when asked why agriculture interventions were not given attention commensurate to the importance attached to them by the beneficiaries: “..., *about massive investment in agriculture? The envelope is the only problem*”. Therefore, intervention components should be post-defined as a result of prioritization process by the beneficiaries.

7.3.3 From supply driven to demand driven interventions

Grassroots or village based development interventions should be demand driven if they are to succeed and be sustained in the long run. This is true given that the self-made beneficiaries are likely to own interventions and contribute to their success. They are different from the passive recipients of interventions, planned by outsiders (intervention suppliers) who in actual sense do nothing short of enrolling beneficiaries to whom they sell their ideas. While such interventions can work, their sustainability beyond the active implementation period is questionable. Therefore, governments should groom grassroots institutions into fully functioning agencies, capable of exercising authority from below; capable of claiming (demand) what they think can break the cycle of poverty in the community and capable of translating their ideas into projects. External agents should come in for funding and for support on the interventions requiring special expertise.

7.3.4 From parallel systems to append approach

Arguably, parallel institutional arrangements are not ideal to implement and sustain development interventions. Whenever there are interventions targeting a specific

region, rather than creating a dedicated PMO, as a separate entity to manage the intervention project, it would be ideal to use what would have been the PMO resources (Human, logistical, finances, etc.) to reinforce existing institutions, what we call 'Append Approach'. Hence the project would be managed without creating a new parallel institution. Arguably, sustainability would be ensured because at the end of the project, the conventional institutions would have not only acquired required expertise but also they would have owned the interventions. Resources would then be trimmed to the minimum required to run the routine institutional work and to sustain interventions. This would as well solve much of the aforementioned concerns about scaling up pilot interventions namely the shrinkage of bottom-up features, lack of preparedness of existing local institutions and the resources beyond reach.

7.3.5 Future area of research

The present research highlighted areas for future studies. First, while some issues associated with scaling-up pilot interventions were highlighted, there is a need to extend from that to study the adverse impact the massive influx of cash would have on the local economy. It is believed that it would translate into macroeconomic instability. Research is needed in this area with specific reference to the MV.

Second, the present study can as well be extended to the macro level to analyze varying responsiveness of different severity levels of poverty to agriculture development. Agriculture development would be the predictor variable of interest while different poverty measures would be outcome variables in separate models.

Third, while it is believed that the MV interventions are expensive, such a claim is always taken cautiously as it is not built on the actual quantitative comparative study. Therefore, cost effectiveness analysis of the MV in comparison with let say the conditional cash transfer may be as well an avenue for future research, beside the MV impact evaluation.