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The Role of Foreign Aid in Combating Rural Poverty: Case of Millennium Challenge Account - Armenia

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Abstract: Foreign aid and its effectiveness in combating poverty in the developing world have long been contested in the discourse of international development. This study analyzes the geographic and sectoral allocation of foreign aid in Armenia within the framework of Millennium Challenge Account – Armenia Program by examining rural poverty issues prevalent in the country. Although the Program has addressed causes of rural poverty, foreign aid allocation within the scope of the Program and the geographic distribution of poverty in the country reveals that it has mostly targeted less poor regions which are more favorable for agricultural activities. Nevertheless, possible inferences about emanating agricultural transformation process propelled by the Program should be treated with caution given the significant share of the labor force employed in the primary sector and stagnating employment opportunities in non-agricultural sectors.

Key words: Foreign Aid, Poverty, Economic Growth, Agriculture, Rural Development

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“Every end is a new beginning” – I ponder as I submit the last project as a student in the Economic History Department of Lund University. Academic life requires self-discipline. It is both rewarding and challenging.

I express my words of gratitude to Lund University and the Department of Economic History for the conveyed knowledge and dedicated approach to their work. I especially appreciate my supervisor Tobias Axellson’s continuous guidance and support in completing this work.

Last and not least, my family, friends and my country remain a continuous source of inspiration for me.



A Passage to a Better Life

Preface

As I travel to rural Armenia as a program assistant of a development project, I observe instances of poverty and increasing divergence in living standards. The divergence becomes more arresting the farther our car departs from the capital city Yerevan. We divert from the highway to visit a number of communities where project specialists are training local farmers on how to irrigate their land plots and what to grow to reap the benefits of their arduous work and improve their well-being. I listen to the questions raised by the farmers about malfunctioning institutions, high costs of irrigation water and fertilizers, selective marketing opportunities and the government's reluctance to support local agricultural production.

Most of the training participants welcome the initiative of trainings in the scope of the development project but also raise doubts whether it is timely. How effectively will the knowledge they gain be invested to boost their incomes if the system does not provide incentives for them to be more productive? More pessimistic farmers question whether corruption at the government level and dependence on the rest of the world does not escalate as more foreign funded projects "enter" the country under the guise of developing it.

We sum up the training. The car is ready to take us back to the capital. Some of the training participant farmers invite us to their houses to taste the fruits and vegetables they grow. We decline cordially. Tired from the road, we want to be back at the office. As I later discuss the outcomes of the trip with my supervisor, we revisit the questions raised by the farmers. We think about the vast amount of resources and efforts spent within the project and question the extent to which it benefits rural households to reduce poverty and ease their daily lives. We want to believe in the results of the work we are engaged in.

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List of Abbreviations

DAC	Development Assistance Committee
EDRC	Economic Development and Research Center
GDP	Gross Domestic Product
GNI	Gross National Income
HVA	High Value Agriculture
IAP	Irrigated Agriculture Project
IFAD	International Fund for Agricultural Development
IIA	Irrigated Infrastructure Activity
ILCS	Integrated Living Conditions Survey
IMF	International Monetary Fund
ISSA	Institutional Strengthening of irrigation management entities Sub Activity
MCA	Millennium Challenge Account
MCC	Millennium Challenge Corporation
NGO	Non-Governmental Organization
NSSA	National Statistical Service of Armenia
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
OFWM	On-farm Water Management
PPM	Post-harvest Processing and Marketing
RRRP	Rural Road Rehabilitation Project
UNDP	United Nations Development Program
WTM	Water to Market

“Foreign aid might be defined as a transfer from poor people in rich countries to rich people in poor countries”

Douglas Casey, 1992

1. INTRODUCTION

Year 2010 marked the 50th anniversary of the commencement of the Official Development Assistance (ODA) flows to the developing world. For thousands of specialists employed in the aid industry worldwide, it is a manifestation of a well-structured and highly coveted career path devoting vast amount of knowledge and skills to an industry with rather exemplary moral grounds. For a number of scholars in development economics and related fields it is another occasion to revisit the issue of ODA effectiveness and devote multiple studies to its investigation. And for a family living at the verge of extreme poverty somewhere in the rural developing world year 2010 perhaps marks nothing significant but an unceasing struggle for food, shelter and some “luxurious” utilities such as clean water, electricity and health care.

Since the launch of foreign aid in 1960 until 2009, as reported by the *Organization for Economic Cooperation and Development* (OECD, 2011a), some 3, 438.34 billion USD in the form of ODA has been allocated to developing countries with far-reaching objectives to promote economic growth, raise the welfare of the recipient states and eradicate extreme poverty. OECD defines ODA as:

*“Those flows to countries and territories on the DAC List of ODA Recipients and to multilateral development institutions which are: a) provided by official agencies, including state and local governments, or by their executive agencies; and b) each transaction of which is administered with the promotion of the **economic development and welfare of developing countries** as its main objective; and is **concessional in character** and conveys a grant element of at least 25 percent (calculated at a rate of discount of 10 percent)”(OECD, 2011b).*

The ODA intentions at least as pronounced by donor countries and organizations seem straightforward. Whether driven by motives ranging from selfish to humane the ultimate desired outcome is to witness economic growth and improvement of living standards in the recipient countries. However, after half a century of continuous and substantial ODA flows to the developing world its impact on the economic growth trajectory of the recipient countries remains controversial and difficult to measure eliciting ever-lasting public debates among the scholars of social sciences. Moreover, the alarming persistence of poverty in the developing world begs the attention of the international community to the

need for revisiting the issue of foreign aid effectiveness setting poverty reduction as donors' and recipients' utmost priority.

1.1. Background and Problem Discussion

The conventional viewpoint about the role of foreign aid in combating poverty entertained in the related literature generally rests upon the notion that it can be significant if it is designed and implemented to promote economic growth of the recipient states and serve the needs of the targeted audience (the poor). This will be the best scenario, but easier said than done. Normally, foreign aid goes through a number of middlemen (with different motivations and incentives to make aid work) and a variety of intricate processes until it reaches its final beneficiary, the poor (Easterly, 2001). If economic growth leads to poverty reduction, it can well be argued that foreign aid which promotes growth will consequently succeed in reducing poverty rates in the recipient countries. While this perception has been advocated by scholars in the related field (Ravallion and Chen, 1997; Dollar and Kraay, 2001; Easterly, 2001, p. 14), it has also been argued that growth is a necessary but not a sufficient condition for poverty alleviation (Le and Winters, 2001; Masud and Yontcheva, 2005). As further argued by Le and Winters, the caveats associated with the assessment of foreign aid effectiveness in poverty reduction rest upon the complex nature of poverty itself requiring a number of approaches to address it from an optimal perspective.

Meanwhile, the recent trend in sectoral allocation of foreign aid has shown a notable shift toward agriculture and projects that are designed to lead to agricultural development (OECD, 2011c; World Development Report, 2008). Assuming that absolute or extreme poverty is largely a rural phenomenon in the world (Cassen, 1994, p. 36; Islam, 2011) it has become important that foreign aid allocation policies target rural areas in the developing world. Some possibilities mentioned among others are boosting agricultural production in rural areas, directly targeting the rural poor through income generating and poverty reducing projects, providing rural credits at favorable interest rates, improving irrigation infrastructures and such.

1.1.1. Foreign Aid Trend to Armenia

Armenia, a post-soviet, small and landlocked country situated in the South Caucasus region, spans 29, 700 square kilometers of mountainous landscape centered on Ararat valley. It is inhabited by 3.2 million people with 2 633 USD GDP per capita (NSSA, 2009, p. 233). The country borders with Georgia to the north, Turkey to the west and south, Azerbaijan to the east and southwest, and Iran to the south. Armenia is an independent democratic presidential state with a multiparty parliament.

During 2000– 2008 Armenia’s economy has experienced a double digit (10.75%) average real GDP growth rate (Maddison, 2008). During the same time period, the country has recorded a sharp decrease in poverty rates from approximately 56.1 % in 2000 to 27.6% in 2008 (NSSA, 2010, p. 32). Prior to these significant achievements and since its independence in 1991, Armenia has also become a recipient of continuous foreign aid to address the country’s economic vulnerabilities, support democratic reforms, enforce rule of law and build adequate social services. According to OECD and World Bank data, during 1991 – 2009 Armenia has received ODA of 4,187.57 million USD constituting on average 8.26% of the country’s GNI (OECD, 2011*d*; World Bank, 2011*a*). The major donor countries during 2005-2009 were the U.S. followed by Japan, Germany, France, Netherlands and UK. Net private ODA inflows in 2009 have amounted 528.14 million USD allowing per capita ODA of as high as 171.13 USD. For comparison, the last figure exceeds the average indicator for developing countries (18.8 USD) almost 9 times (World Bank, 2011*b*). The vast share of ODA has been invested in manufacturing followed by investments in program assistance, improvement of economic infrastructure/services in the country, education, health sector and agriculture (OECD, 2011*e*).

Taking into account the above highlighted indicators of foreign aid provision to Armenia, one can assume that it has had its share in the increase of economic growth rate and reduction of poverty in the country. However, lack of robust data (the number of observations is not sufficient, some data is not continuous) does not allow conducting econometric analysis to reveal the direct and quantitative contribution of foreign aid to the country’s economic growth and poverty reduction. Nevertheless, much can be said in the field of foreign aid effectiveness qualitatively by looking at the pattern of foreign aid allocation within the scope of a particular foreign – funded development project in the country. This will help us determine the extent to which the specific project under consideration has been designed and allocated in a manner as to address rural poverty issues in the country. The findings will allow us to draw possible implications for more effective foreign aid practices and allocations.

1.1.2. The Case of Millennium Challenge Account – Armenia

In March 2006, the U.S. (through Millennium Challenge Corporation) signed a 5-year contract with Armenia (through Millennium Challenge Account – Armenia) worth 235.65 million USD. This grant inflow was aimed to reduce rural poverty in the country through vital investments in rural road rehabilitation, irrigation infrastructure as well as technical and financial assistance to farmers and agribusinesses so as to increase their annual incomes as a result of “*improved water supply, higher yields, higher-value crops and a more competitive agricultural sector*” (MCC, 2010). The project is at its final stage of implementation, ceasing its activities by September 30, 2011.

1.2. Research Question

The research question to be answered in this study is *whether the geographic and sectoral/field allocation of foreign aid within the scope of MCA- Armenia funded projects has been conducive to addressing rural poverty issues in the country*. In other words, this study seeks to investigate whether the design and implementation of MCA –Armenia’s projects throughout 2007 -2011 have been targeted to particular sectors, groups and regions particularly vulnerable to severe poverty.

1.3. Aim and Contribution of the Study

The aim of this study is to evaluate the role of foreign aid in combating rural poverty¹ by looking at the aid allocation pattern of a particular foreign – funded development project in Armenia during its design and implementation phases. The contribution of this study is twofold. First, by focusing on a foreign-funded Program in Armenia, this thesis adds to studies conducted on the role of foreign aid in reducing rural poverty in a recipient state through emphasized investments in the agricultural sector. It examines whether foreign aid allocation within the scope of the Program under study has targeted the sectors, groups and geographical areas most vulnerable to poverty incidences. Second, based on the findings, it draws important conclusions for rural poverty reduction oriented programs.

1.4. Scope and Limitations

An astute reader will question whether only a look at the allocation of foreign aid within the context of one particular project necessarily paints the true picture of the role of foreign aid in combating rural poverty in Armenia. Moreover, even if the findings of this study prove that the allocation of foreign aid has been in line with poverty reduction goals, how do we know that effective project implementation has followed in order to make conclusions about the role of foreign aid? Unfortunately, lack of time and possibilities to collect primary data from the final beneficiaries (the rural population) does not allow for a thorough analysis of the project impact. Making conclusions about the project impact based only on the monitoring and evaluation reports conducted by the donor can be useful, but not sufficient. However, a look at the geographic and sectoral distribution of aid within the

¹ To limit the study, we will focus on income based poverty

project and a comparison with corresponding rural poverty issues in the country provides an important perspective on whether the project under consideration is effective in achieving its rural poverty reduction goals.

Choice of Millennium Challenge Account – Armenia

As already mentioned, Millennium Challenge Account – Armenia has been selected as a case study. Through this project a substantial amount of financial resources (the largest among other development projects) have been invested in the agricultural sector of the economy. It financed the implementation of development projects including the improvement of irrigation infrastructures and provision of technical and financial assistance to farmers and agribusinesses having a large geographical and sub-sectoral coverage (project activities have been implemented in all 10 regions of the country).

1.5. Outline of the Thesis

The remainder of this work is organized as follows. Section 2 provides the general theoretical framework of this thesis. First, it briefly presents the history and some of the motivations of foreign aid provisions further reviewing the related literature. Next, the theoretical approach adherent to the thesis is presented. Section 3 touches upon the methodology of this study. Empirical analyses are presented in Section 4. Finally, Section 5 concludes with policy implications.

2. THEORY

When evaluating the impact of foreign aid on poverty mitigation in the developing countries, scholars usually assume that the donors' and recipients' motivations are firmly in line with economic development and poverty reduction strategies (Le and Winters, 2001). This might not always be the case, however. To get a better understanding on the issue, a brief look at the history of foreign aid and its motivations is provided.

2.1. History and Motivations of Foreign Aid

The history of foreign aid provisions dates back to the reconstruction plans of ravaged Europe in the aftermath of the Second World War. Announced as the Marshall Plan in 1947 and initiated and sponsored by the U.S., its aim was to help Europe restore its devastated economy through transfer of approximately 2-3% of its national income (mainly in the form of food and raw materials) during the years of acute need (Tarp, 2006). The outcomes of the Marshall Plan were more than encouraging. Already during late 1940s and early 1950s major European countries started to experience rapid industrialization leading to economic growth and creation of welfare states (McGillivray et al, 2006). Inspired by the success of the Marshall Plan, the industrialized countries' next target was to enhance economic growth in the developing world, most of which were newly independent states with faith in replicating Europe's reconstruction experience. As a result, in 1949 U.S. president Truman announced a vigorous launch of increased foreign aid to the developing world.

Since then, the "industry" of foreign aid and the mechanism of its provision have undergone on-going changes in line with geopolitical changes in the world. Particularly, bilateral (country to country) aid has been paralleled by multilateral aid (via international organizations, WB, IMF, UN, or NGOs) the latter constituting 30% of total aid provisions; program assistance (budget and balance of payments support, structural adjustment loans) has largely been replaced or supplemented by investment projects. Despite fluctuations of foreign aid in real terms as a result of oil crises (1973, 1979) and international recession incidences, financial resources devoted to foreign aid continue to grow inviting donor countries to allocate bigger shares of their GNI to it (OECD, 2011f).

A vast amount of foreign aid literature argues that the containment of Soviet expansion which was in the political agenda of the U.S. in 1940s was an important impetus in the trend of foreign aid expansion (Tarp, 2006; McGillivray et al, 2006; Easterly, 2001; Hjertholm and White, 1998; Nelson, 1968 in Pankaj, 2005 etc). Through the launch of the Marshall Plan, the U.S. strengthened its relationship with Europe at the same time reasserting its growing importance in world economics and politics. In addition, the colonial links remained to be a strong determinant in foreign aid allocation decisions of the

previous colonial powers based on their political and strategic interests (Tarp, 2006, Alesina & Dollar, 2000). Berthélemy & Tichit (2002) studying bilateral foreign aid allocation practices of 22 donors to 137 recipient countries during 1980-1999, accept that post-colonial ties remain strong in the foreign aid allocation decisions of the donor countries; however, they display a decreasing trend. Their findings also reveal that since the end of the Cold War, foreign aid budgets of the donors under consideration had shown a declining trend of 6% annually in real terms. Elaborating more on recent motivations of foreign aid provisions, scholars highlight the donors' concerns about the accelerating flow of immigrants to developed countries (Dichter, 2005). Poverty reduction and economic growth in the developing world through provisions of foreign aid is viewed as one of the alternatives to mitigate emigration to the developed world.

Meanwhile, recipients' motivations are also tested when assessing the effectiveness of foreign aid in combating poverty. As argued, foreign aid will largely be misused in recipient countries where the government pursues goals other than development (Masud and Yontcheva, 2005). Alesina and Dollar (2000), argue that approximately 2/3 of foreign aid received by a developing country is dissolved in the economy through government consumption. This creates opportunity for corrupt governments to misuse foreign aid and serve it to the needs of a selective group of people increasing chances of rent-seeking rather than directing it to poverty alleviation and economic growth (Svensson, 2000).

Given these mixed and often contrasting motivations of donors and recipient states in giving and receiving foreign aid respectively, a question rises whether it can be effective in achieving poverty reduction in the recipient states. Does aid work? The next section presents scholarly articles related to the effectiveness of foreign aid in poverty alleviation.

2.2. Literature Review on Foreign Aid Effectiveness

To review the existing literature on foreign aid effectiveness in relation to the narrow scope of this thesis, it is reasonable to take a look at studies about the role of foreign aid in poverty alleviation from two perspectives: economic growth - led and agriculture -led poverty reduction schemes.

When most economists talk about the effectiveness and role of foreign in combating poverty (rural and urban), they largely refer to its impact on the economic growth of the recipient states assuming that economic growth leads to poverty reduction in the developing countries. World Bank specialists Ravallion and Chen (1997) analyzing 109 household survey results from 42 developing and transitional countries find a strong association between the rate of economic growth and the incidence of poverty. Moreover, their findings suggest that the increase of the growth rate of the average household living standards is not accompanied by the increase in unequal income distribution. Further, their

colleagues at World Bank Dollar and Kraay (2001) state empirically that the income of the poorest fifth of the society increases by the same proportion as the average income of the country rises. Acknowledging the importance of the World Bank and the International Monetary Fund (IMF), as well as national programs designed to boost economic growth in developing countries, they nevertheless, state that improvement of the living standards of the poor cannot be achieved by relying on growth only. Rather, economic growth should be selected as a target in the design and implementation of poverty reduction strategies with much focus on such growth-enhancing factors as good rule of law, open trade policies and macroeconomic stability. The World Development Report (2006) "Equity and Development" advises that a focus on equity is paramount when designing and implementing policies for growth and development stressing that economic growth and equity working complementarily can help achieve poverty reduction goals in the developing world.

Guided by these notions (economic growth-led poverty alleviation), the role of foreign aid in the process of poverty mitigation is assessed by testing *if* and *how* it affects economic growth of the recipient states.

2.2.1. Foreign Aid – Economic Growth – Poverty Reduction

The first empirical analyses on foreign aid effectiveness were based on oft-referred "financial gap" approach. The common belief was that economic growth in poor countries was being hampered by lack of capital, savings and foreign exchange to purchase capital goods (McGillivray et al, 2006). Since the level of savings in poor countries is rather low, it was argued that foreign aid injected into the economies of developing countries could "fill" this gap and lead to higher economic growth. However, further studies on finding a positive relationship between the inflow of foreign aid and the level of domestic savings and investments in the recipient countries have not been encouraging (Boone, 1996; Easterly, 1999, 2001). The line of thought is that there is no relationship between foreign aid, investments and savings. Moreover, foreign aid increases consumption which does not necessarily benefit the poor. Cassen (1994, p. 25) argues, however, that even if part of foreign aid is spent on consumption, it does not necessarily mean it is "wasted". When the income of the poor increases, it is spent on consumption rather than savings. Also, government spending on education and health care can be recorded as consumption; however this can provide noticeable returns in terms of improvement of the living standards of the poor.

Further, Easterly (2001) in his "*Elusive Quest for Growth*" raises the notion of *incentives* arguing that recipient states, once granted foreign aid, do not have the right incentives to invest more. Rather, foreign aid is used to buy more consumption goods perverting the recipient states' incentives to utilize their own resources. Thus, the question of

development and growth cannot be solved only by capital injections, which is a necessary but not a sufficient condition for “take-off”. The question comes down to identifying, creating and sustaining the right incentives both for the recipients and the donors.

On the other hand, an ardent proponent of foreign aid and an advocate for the need to fill in the financial gap with foreign aid injections Jeffrey Sachs (2005) argues that not only foreign aid works; it also needs to be “scaled up” today if we aim to end extreme poverty in the world by 2025. According to Sachs, a substantial part of the world’s population has not yet been successful in stepping up at the ladder of economic development since they lack financial resources to make vital investments to boost economic growth. Unfortunately, chances are they will not be able to get out of the extreme poverty trap if they are left alone in their struggle against poverty. According to Sachs (2005, p. 73), rich countries “*need to help poor countries to get a foothold on the ladder of economic development*” after which self-sustaining economic growth will follow. As a praiseworthy initiative, he welcomes the launch of the UN Millennium Project hoping that the achievement of development goals set forth within the project will reduce world poverty by half by 2015. Sachs blames the poverty trap rather than bad governance in low income countries in their failure to progress. The panacea for poverty elimination suggested by Sachs is the direction of sufficiently long lasting foreign aid toward investment in the infrastructure and people in the developing world “*attuned to their local needs*” (Sachs 2005, p. 208).

Meanwhile, findings of an ample of regression analysis using panel and cross-sectional data of a large number of aid recipient countries can be roughly grouped as such:

a) *Foreign aid has no effect (neither positive nor negative) on the economic growth of the recipient countries.*

In the regression analysis framework presented by Boone (1996) foreign aid does not promote economic growth in the recipient states since poverty alleviation is not merely contingent upon foreign capital inflows. In addition, aid does not motivate recipient governments to alter their existing policies so as to boost economic growth. Thus, Boone’s findings are in line with Easterly’s arguments about the lack of *correct incentives* in recipient countries when mobilizing foreign aid inflows into the economy of the country. Boone also finds evidence that foreign aid does not lead to improvements of basic human development indicators such as infant mortality and primary schooling ratios. Jensen and Paldam (2006) have conducted a rather provocative analysis on foreign aid effectiveness. Elaborating on the fact that aid-growth models rest upon using only 30% of the existing data, by simplifying the models, they have investigated whether they replicate on the rest of the data. Their findings attest that there is no association between growth and foreign aid. Nevertheless, they conclude that even though foreign aid does not necessarily help, it does not harm the recipient states either.

b) Foreign aid has a positive/negative effect on the economic growth of the recipient countries.

Hansen and Tarp (2000) by reviewing existing three generation cross country regression analysis on foreign aid effectiveness, conclude that findings with negative links between aid and growth are in the minority. They conclude that the micro-macro paradox coined by Mosley in 1987 has been dissolved in that foreign aid does spur growth at the macro-level. On the other hand, a more thorough meta-analysis on foreign aid effectiveness conducted by Doucouliagos and Paldam (2009) reviews 97 papers on the subject matter analyzing 143 models. According to the findings, 46% of the reviewed studies reveal a positive link in the aid – growth model. Forty-five percent of the reviewed papers find no relationship between aid and growth, whereas 9% of the studies conclude that aid hampers and harms economic growth. Further analysis based on the techniques of meta-studies reveal that even in cases when foreign aid leads to economic growth, this positive relationship is found to be small.

Through theoretical and empirical studies of foreign aid effectiveness, Dalgaard et al (2004) find positive evidence in the aid-growth nexus. However, they accept that aid cannot be the single cure against poverty; rather, it can stimulate the process of economic growth and poverty reduction. Their findings also suggest that aid does not have the same effect in all countries and its magnitude is determined by climatic and policy conditions of the recipient states. In a cross-section analysis conducted by Rajan and Subramanian (2005) a mixed relationship is found between aid and growth when regressions are run for different time periods and with inclusion of outliers. When cross-sectional analysis is run with a 40 year time span, a negative but a statistically insignificant relationship is found between foreign aid and growth. However, when disaggregating the analysis to the 1980 - 2000 time period and including outliers, small but positive evidence manifests in the foreign aid – growth nexus.

c) The impact of foreign aid on recipient countries is largely contingent upon fiscal, trade and monetary policies as well as the institutional framework of the recipient states..

In this regard, a seminal report on aid assessment published by the World Bank in 1998 triggered new debates in the aid effectiveness debate and provided a new insight into the macroeconomic approach to foreign aid impact assessment (McGillivray et al, 2006). A new hypothesis to be tested by economists was put forward: aid works but in countries with good economic policies and institutional environment. To estimate their growth model, Burnside and Dollar (2000) use panel data of 56 countries and 6 four time periods from 1970-1993. As proxies for institutional and political variables they select the budget surplus, the inflation rate and an openness dummy. Finding a positive relationship between aid and growth in countries with good policies, Burnside and Dollar (2000) conclude that

aid allocation should be conditional on the countries' policies. This will greatly improve its impact on the economic growth of the recipient states. However, the major criticism on the study by Burnside and Dollar raised by Guillaumont and Chauvet (2001), Hansen and Tarp (2001), Collier and Dehn (2001) is that they do not include negative trade shocks considering them as outliers. Since trade shocks can have an inverse effect on the growth of a country, they should not be omitted from the analysis to ensure robust findings. Further, when Collier and Dehn (2001) incorporate cases of extreme trade shocks into the Burnside and Dollar model, they find them substantially significant. This makes them conclude that foreign aid should be directed to countries experiencing negative shocks rather than to ones with good policies. Moreover, Tarp (2006) accepting the controversy and the simplicity of Burnside and Dollar model, questions whether the exclusion of countries with bad policies is be fair and non- discriminatory forever leaving them in a poverty trap? Could foreign aid to these countries be designed in a way as to promote good policies?

2.2.2. Foreign Aid – Agriculture – Poverty Reduction

On the other hand, taking into account the trend in foreign aid allocated to agriculture, studies conducted on rural poverty alleviation through this channel should not be neglected. The World Development Report (2008) "Agriculture for Development" called for a need to prioritize investments in agriculture in the years to come if fighting global poverty and hunger still fair high in the development agenda. Elaborating on the fact that the agricultural sector has been neglected during the last two decades, the World Development Report (2008) emphasizes the need for "*giving agriculture more prominence across the board*" arguing that 75% of the world's poor live in rural areas and heavily depend on the primary sector. In addition, the 2007 -2008 world food crisis has emphasized the prominent role of agriculture in rural poverty alleviation which can be accomplished by foreign aid provisions toward agriculture restating the sector's importance in food security and rural development (Islam, 2011).

Vollrath (1994) by looking at the empirical evidence of the economic growth trajectories of several countries concludes that growth in agricultural rather than non-agricultural industrial sectors has had more profound impact on increasing the incomes of the poor in developing countries. As a result of increased agricultural productivity growth eventually spurs in other non-agricultural sectors as well. Thus, his proposed vision for foreign aid² largely lies on its systematic allocation toward the agricultural sector to promote rural development and achieve increased incomes of the rural poor. Norton et al (1992) using data for 98 less developed countries between 1970-1985 and using variations of grouping these countries (by relative size of agricultural sector, income levels, relative external debt

²Vollrath (1994) also prioritizes the importance of governments' investment in education and basic rural infrastructures along with well-functioning institutions

levels) study the impact of foreign aid on agricultural growth³. Their findings suggest that foreign aid has improved agricultural productivity in Asia, which is not surprising given the egalitarian nature of land reforms in most Asian countries (Kay, 2002). Agricultural productivity in Sub-Saharan Africa has been affected to a lesser extent. This evidence, however, has not been found for Middle Eastern and Latin American countries, where land reforms were restricted in scope with distorted goals prompted by government malpractice and unequal distribution of land (Kay, 2002). Likewise, foreign aid has been less effective in boosting agricultural productivity in countries with high levels of external debt.

Mellor (1998), a proponent of “*agricultural –first*” approach, recognizes the importance of foreign aid with emphasis on agriculture and states that it has stimulated development in a number of Asian and Latin American countries. The success of the Green Revolution has substantially increased food production in Asia in the late 1960s and 1970s. In this regard, foreign aid intervention has emphasized the importance of agricultural production in tackling food bottlenecks as well as improving social welfare. However, Mellor (1998) also argues about the need for institutional modifications to ensure that the Green Revolution benefited the poor along with enriching the rich. While foreign aid intervention in Asia was initially directed toward agriculture and increase in food production, donors had jettisoned the focal role of agricultural productivity when designing and implementing integrated rural development projects in Africa leaving the donors with “uncompleted business” in the continent. Nevertheless, according to Mellor (1998) agriculture-focused foreign aid can lead to self-sustaining growth and poverty mitigation in Africa bearing in mind that the development process itself requires sufficient time.

Summarizing the literature review on the role of foreign aid in poverty mitigation through economic growth and agriculture-led mechanisms, it is rather difficult to conclude with one definite answer to the question whether aid contributes to poverty alleviation. Quantitative studies on the role of foreign aid in promoting economic growth and hence poverty alleviation triggers rather controversial findings failing to achieve a consensus among economists. Much of it of course has to do with the shortcomings of cross-country regressions (Bourguignon and Leipziger, 2006) such as country specifics, reverse causality, inconsistent data, types of foreign aid (aid, when disaggregated based on its type, can have a different impact on growth), etc. In addition, cross-country regression analyses mask most qualitative aspects of the role of foreign aid (micro-level failure or success stories) bringing down the discussion about aid effectiveness to rough numbers and formulas. On the other hand, the *agriculture-led* development approach through foreign aid intervention can prove to be a more direct and efficient technique in reaching out the rural poor unless

³Studies conducted by Pinstrup-Andersen and Pandya-Lorch (1995) provide evidence that agricultural growth is a key to poverty alleviation in developing countries

the benefits of foreign aid intervention are distributed unequally and donors' and recipients' goals are other than rural poverty mitigation.

2.2.3. Foreign Aid Impact Studies on Armenia

Based on ODA statistics for Armenia, foreign aid inflows can be an important source of economic growth and poverty reduction in the country. Since Armenia has been receiving a significant amount of aid since 1991, one could assume there would be a decent amount of studies conducted on how it has been used especially toward poverty reduction in the country. Such literature or research, however, is scarce, almost non-existent. Country assistance evaluation reports conducted by the World Bank, the UN and other international organizations (World Bank, 2004a; UNDP, 2002) provide a general description and evaluation of the implemented projects. Although a vast majority of their projects aim directly or indirectly toward reducing poverty rates (urban or rural) in the country, none of the studies narrows down its research objectives to depict the allocation of resources in the rural development sector to evaluate the role of its assistance in reducing rural poverty in the country. Other studies conducted by international or local organizations focus more on either providing the geographic distribution (World Bank, 2007) and causes of persistent rural poverty in Armenia (Minasyan and Mkrtchyan, 2005) or focusing on a general conceptual framework within the scope of which foreign aid *should* be allocated rather than how it *has been* allocated to address the issues of poverty in Armenia (EDRC, 2003).

Nevertheless, this thesis follows the conceptual and empirical framework developed by Le and Winters (2001) in analyzing foreign aid allocation patterns of MCA – Armenia's projects to find out whether it has been effectively allocated so as to address rural poverty in the country. However, instead of concentrating on aggregate foreign aid allocations in the country as Feeney (2003) and Le and Winters (2001) do in their respective studies, this study will limit its focus on aid allocation only within the context of one specific project.

2.3. Theoretical Approach

Agriculture-led rural poverty reduction objective of the case study under consideration necessitates a concise discussion of the theoretical ground about the role of agriculture in economic development and rural poverty alleviation.

Early studies conducted by economists have observed that the share of agriculture in the national product of wealthier countries is relatively small (Anríquez and Stamoulis, 2007; Timmer, 1998). In his second paper on the quantitative aspects of economic development Kuznets (1957), examining the level and trend of the share of the agricultural sector in national income and labor force, reveals a decline of the primary sector (agriculture) as countries gradually embark on their economic development path. His observations suggest

that the share of the primary sector in the national product rises as the level of per capita income decreases. If this is the observed historical trend, rapid growth of the agricultural sector could lead to structural transformation when resources will gradually divert from the primary sector to other industries significantly decreasing the share of the agriculture in total output and labor force ultimately stimulating economic development (Johnston, 1970 as cited in Anríquez and Stamoulis, 2007).

However, the declining share of the agricultural sector in the economy does not imply that the sector will be stagnating. Rather, functioning based on interdependency, agricultural and industrial sectors continue providing markets for each other's products. Meanwhile, the industrial sector continues embracing the labor force released by agriculture (Ranis and Fei, 1961). As further argued by Ranis and Fei (1961), consideration of this "balanced growth" can ensure sustainable growth and development. The vital role of agricultural growth in the economic development path is also emphasized by Johnston and Mellor (1961) stating that: a) production of food provides for the essential nutrition needs of the population thus increasing (though at a declining trend) food demand as the economy grows; b) agricultural exports increase foreign exchange earnings and income enabling the import of capital goods; c) agriculture generates savings vital for investments in other sectors of the economy; d) agriculture provides labor force for other sectors as the resource diversion from primary to secondary sectors starts to take place; e) increase in farmers' income as a result of growth in the agricultural sector increases farmers' demand for industrial goods. The mechanism through which agricultural growth further contributes to rural poverty alleviation is by increasing income and employment opportunities for the rural poor (Mellor, 1982).

Given the imperative role of the primary sector in the "take-off" process of developing countries, investments in agriculture will not only help alleviate rural poverty but may also thrust agricultural transformation processes which is at the core of structural transformation and economic development. MCA- Armenia investments in the country have been exclusively made in the agricultural sector aiming to reduce rural poverty through increase in agricultural productivity. Although not predominantly widespread, the rural poverty rate in Armenia in 2009 has been higher (34.9%) than the urban (33.9%) poverty (NSSA, 2010a). However, rural poverty reduction in the country through agricultural growth⁴ is important for several reasons. First, agriculture is an important sector of the Armenian economy (on average it constituted 17.8% share of GDP in 2005-2009) following construction (22.14%) and service (18.84%) sectors (NSSA, 2009). Second, it is vital for food security which gains more importance considering the current

⁴It has been estimated that rural poverty is more responsive to growth of agricultural sector than of the aggregate economy (Ravallion and Datt 1996 as cited in Feeney, 2003)

economic and political blockade with two neighboring states Azerbaijan and Turkey. Third, given the limited opportunities of off-farm employment, rural households mainly depend on agriculture to provide for their basic needs. Fourth, growth in the agricultural sector will create demand for other industries through reduced food prices which will also benefit the urban poor (33.9% of the population). Finally, reduction of rural poverty will mitigate external and internal labor migration⁵ thus ceasing the possibility of facing desolated rural communities.

In examining the role of MCA –Armenia’s resource allocation to reduce poverty in the country, we will be relying on the approach proposed by Le and Winters (2001). They argue that effective use of foreign aid for poverty alleviation should be designed and implemented not only to boost economic growth but also to contribute to poverty reduction through direct targeting mechanisms. Recognizing the importance of sustainable economic growth in the poverty alleviation process, Le and Winters (2001) nevertheless, emphasize the importance of economic growth caused by agricultural and rural development stating that poverty is a predominantly rural phenomenon in the world. Thus, foreign aid designated to the promotion of growth in the agricultural sector can lead to an increase in farm incomes and rural employment opportunities which can significantly contribute to the reduction of rural poverty rates. However, growth in the agricultural sector and rural poverty mitigation can be achieved through a combination of indirect (i.e. rehabilitation of vital infrastructures) and direct (targeting the rural poor providing them with technical assistance and access to rural credits) interventions.

An examination of MCA –Armenia’s resource allocation between its two projects (RRRP and IIA) will provide a picture of its contribution to agricultural development and hence poverty alleviation in the country. In addition, Water to Market Activity, implemented within the scope of IAP has been directly targeted at the rural poor. This is in line with Le’s and Winters’ (2001) approach that effective poverty alleviation cannot take place only with a focus on agricultural development through implementation of projects indirectly related to increase in farmers’ income. Rather, aid assistance should be focused on *“specific segments of the population who are identified as poor in order to ensure they receive the benefits of general improvements in welfare”* (Le and Winters, 2001). To ensure effective direct targeting the task would be to identify the poor (through targeting those regions and groups which are most vulnerable to poverty), find out the causes behind their poverty and develop a proper strategy to mitigate those causes. In case of Water to Market Activity (direct targeting), the selected group has been the poor farmers in rural communities. Extensive trainings about on farm water management, high value agriculture and post-harvest processing and marketing have been provided to the target group. In addition, the

⁵ As of 2009, 65.5% of the total population was living in urban areas

target group's limited access to sources of finance has been mitigated by provisions of rural credits. Improvements in the irrigation management sphere (important for serving the needs of the targeted group) have been designed to be achieved through technical support to water users associations. One caveat with the direct targeting approach is to control the inclusion of the non-poor. As we shall see later, there have been cases of non-group farmers free-riding on the benefits of the project.

Although the conceptual framework provided by Le and Winters (2001) does not completely help to assess the effectiveness of foreign aid allocation within the scope of MCA- Armenia's projects, it guides in the process of disaggregating aid to its uses trying to explain the level of importance in each case with alleviation of rural poverty as an ultimate objective. It also allows us to derive inferences about possible agricultural transformation as a result of the Program.

3. METHODOLOGY

3.1. Type of Study

In general, there are three main types of studies often used in social science research: descriptive, exploratory and causal. Based on the research question posited, this study is *exploratory*. As argued by Saunders et al (2009, p. 139), “an exploratory study is a valuable mean of finding out ‘what is happening; to seek new insights; to ask questions as to assess phenomena in a new light’”. With exploratory types of studies, the researcher starts with a rather broad overlook at the phenomena further narrowing it down to specific case (s) as the research progresses. This thesis seeks to describe general and rural poverty incidences in the country. Further, it narrows down to the examination of a specific case study (MCA-Armenia) trying to see whether the allocation of resources within the scope of the given project has addressed rural poverty issues prevalent in the country.

3.2. Research Strategy

The *research strategy* utilized in the thesis is that of a *case study*, which implies that a particular phenomenon, in this thesis, foreign aid inflows to Armenia, is studied as occurring in its real life setting with the use of different sources of evidence. It seeks to find possible answers to the questions ‘why?’, ‘what?’ and ‘how?’ (Saunders et al, 2009:145 - 146). By presenting and discussing general and rural poverty incidences in the country, this study seeks to further see whether the allocation of resources within the scope of the given project has addressed rural poverty issues prevalent in the country. Based on the outcome, general conclusions are drawn on how effective MCA-Armenia project has been in combating rural poverty in the country.

3.3. Research Method and Approach

Of the research methods used in social sciences, I have chosen to conduct this study adherent to the principles of *qualitative* research. First, lack of sufficient quantitative data does not allow utilizing econometric models in answering the research question of this study. Second, given the limitations of multiple regression analyses conducted on the subject matter, I am further convinced that the field deserves more qualitative research especially taking into account the narrow scope of the case study. Nevertheless, the limitations associated with the qualitative nature of this study are also acknowledged and stated in Section 1.4 of this thesis.

The *research approach* used in this study is *deductive*. At first, extensive literature review is conducted to develop a theoretical framework about the role of foreign aid in combating

rural poverty. Further, the already developed and discussed theories are evaluated on the example of foreign aid allocation in Armenia through the examination of a particular development project.

3.4. Data

This study heavily relies on the analysis of secondary data. Lack of time and possibilities did not allow for collecting primary information from the final beneficiaries of the project (the rural poor). As a previous employee in one of the project components, I will also use my own observations when analyzing reports provided by MCA-Armenia.

3.4.1. Secondary Data

When working on the descriptive section of the general and rural poverty incidences in the country, I mainly used survey based secondary data derived from the NSSA. In this respect, the processed data obtained from the International Living Standards Survey (ILCS) conducted by the NSSA in 2009 was at hand and helpful in receiving the most updated information on poverty incidences in the country. This information has also been supplemented by studies conducted by United Nations and World Bank specialists. To ensure the credibility of the obtained statistical information from public sources, such as NSSA, the possibility of data triangulation through availability of alternative sources has been especially important. Regional and sectoral allocation data of MCA- Armenia projects, as well as Program monitoring and evaluation reports have been both provided by MCA – Armenia and derived from its official website. In addition, OECD and World Bank’s updated databases on ODA statistics have been useful and especially important since the NSSA does not provide such data.

3.4.2. Visual Observations

Last, but not least, my own visual observations derived from previous work experience serves as data source (though more of an anecdotal nature) to supplement the interpretation of the analysis of secondary data. This, however, could complicate my task to some extent as a conflict of interests might arise when interpreting the results. Nevertheless, even though I have been provided with Program related reports, I have not committed myself to interpreting the results in favor of the MCA-Armenia Program. Having a genuine interest in the role of the Program in improving the living standards of the rural poor, I have tried to be objective in conducting and presenting the results of my research.

4. EMPIRICAL ANALYSIS

Before proceeding to the examination of the MCA- Armenia Program and its poverty targeting pattern, it is imperative to look at the rural poverty issues in the country to be able to examine the extent to which foreign aid allocation within the scope of the Program has addressed those issues. We will start with a brief look at the focal events in post-soviet Armenia that particularly catalyzed poverty in the country in the 1990s.

4.1. Poverty in Armenia

During the first years of its transition from command to market economy, Armenia faced a drastic decrease in living standards allowing perpetuate poverty to hinder the country's socio- economic development. Several pivotal events are held accountable for this. First, it was the devastating earthquake in 1988 which covered 40% of the country's territory and disturbed local industries claiming lives of more than 25, 000 inhabitants and leaving 500 thousand people homeless. Second, the dissolution of the Soviet Union left the country burdened by the remnants of the centrally planned economy (World Bank, 2004a). If the years prior to the transition claimed Armenia as an exporter of high technology products to the rest of the Soviet Republics, the years to follow witnessed a loss of traditional Soviet markets, shortage of foreign exchange and credit accompanied by drastically increasing energy costs. Further, country's engagement in a military conflict with the neighboring Azerbaijan during 1992-1994 over a disputed territory of Nagorno Karabakh and the consequent closure of borders with both of its neighbors Turkey and Azerbaijan left the country in an acute economic and political isolation unprepared to digest the challenges posed by transition.

In the aftermath of the above mentioned events, between 1990 and 1993 Armenia's GDP recorded a sharp contraction by more than 50% (World Bank, 2004a). The consequences of this unprecedented decline in output quickly found their reflection in income and poverty statistics recording a poverty incidence of as high as 55% during 1996-1998 and increasing income inequality in the country from a substantially low 0.25 prior to the transition in 1987-90 to 0.59 in 1997-1999 (Tumasyan et al, 2002).

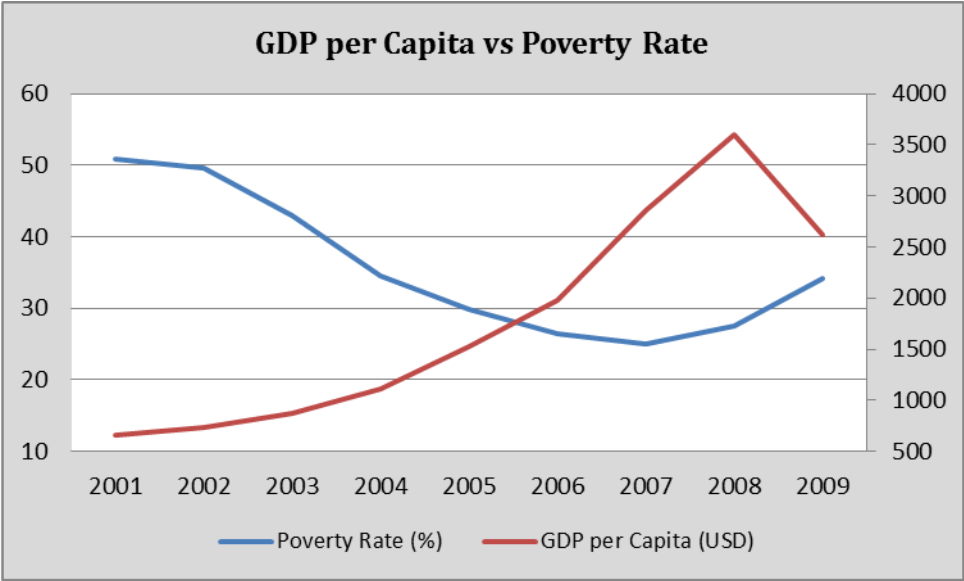
Although the reforms initiated by the government of Armenia and international financial institutions led to an overall macroeconomic stabilization during the first decade of the transition, it is argued that a remarkable portion of the double digit economic growth in the early 2000s was attributed to remittances received by households from their family members as a result of massive emigration during 1990 – 2001⁶. According to a study on

⁶ According to NSSA, population of Armenia decreased by 10% during this period

Migration and Remittances (for Eastern Europe and FSU countries) conducted by the World Bank, Armenia ranked high among countries with high GDP to remittances⁷ ratio (over 10%) amounting over 1 billion USD in 2005 (Asian Development Bank, 2008). In addition, the economic growth was also attributed to the inflow of foreign aid from donor countries and multilateral organizations. Armenia’s changing public policies and its new status as an independent state set a ripe ground for foreign aid received by the country to increase from 166.13 million USD in 1997 to 350.06 million USD in 2007 more than doubling in 10 years and further escalating to 527.6 million USD in 2009 constituting 6.17% of the country’s GDP (OECD, 2011d).

The described short synopsis of the country’s pathway to economic growth reveals one troubling aspect about its economy: Armenia heavily relies on foreign resources, among them foreign aid, which makes its economy vulnerable to external shocks. Taking it as given, an important aspect to consider in relation to the scope of our study is whether the economic growth (presumably also stimulated by foreign aid), has been pro-poor contributing to decreased poverty rates and improved living standards.

Figure 1. GDP per Capita and Poverty Rate (2001-2009)



Source: IMF, World Economic Outlook (2011) and NSSA, 2009

⁷Apart from the direct effect on the income and wellbeing of the recipient households, remittances also have a strong secondary multiplier effect for the economy through expansion of consumption, investment and foreign exchange market. One could assume that through this mechanism remittances could also boost construction, mining and service industries in the country; sectors of the economy which constituted other big share in the country’s GDP growth

Figure 1 illustrates the relationship between GDP per capita and poverty rate in the country during 2001-2009. A quick look at the graph allows us to conclude that poverty rate and GDP per capita are inversely related roughly until 2007 implying that economic growth has claimed to be, if not a sufficient, at least a necessary condition for poverty alleviation in the country. However, during 2007-2008 poverty rate follows suit with increasing GDP per capita allowing us to speculate about growth without equal distribution. In fact, income inequality measured by the Gini coefficient has started to increase from 0.359 in 2005 to 0.389 in 2008 (NSSA, 2010*b*). However, at the same time, according to the results of *ILCS* of Armenia, poverty-to-GDP elasticity has increased (in absolute terms) from 0.57 in 2004/2008 to 1.78 percentage points in 2008/2009 (NSSA, 2010*a*). This can be interpreted as an increase of poverty rate responsiveness to GDP growth. Interestingly, the elasticity coefficient was the highest among the rural population which can be substantiated by higher rural than urban poverty incidence in 2009.

Table 1 provides a snapshot of poverty indicators in the country for different time periods and years based on the results of *ILCSs* (1998/99, 2005, 2008/2009) conducted by the NSSA.

Table 1. Basic Poverty Indicators, 1998/99, 2005, 2008, 2009 (percent)

	1998/99		2005		2008			2009		
	Very Poor	Poor	Very Poor	Poor	Very Poor	Poor	Poverty Severity	Very Poor	Poor	Poverty Severity
Urban	26.2	62.1	5.3	30.7	13	27.6	1.5	20.4	33.7	2.6
Yerevan	24.8	58.4	3.6	23.9	8.1	20.01	0.9	13.7	26.7	1.6
Other Urban	27.4	65.5	7.2	37.8	18.2	35.8	2.1	27.9	41.5	3.8
Rural	14.1	48.2	3.2	28.3	11.9	27.5	1.2	19.5	34.9	2
Total	21	56.1	4.6	29.8	12.6	27.6	1.4	20.1	34.1	2.4

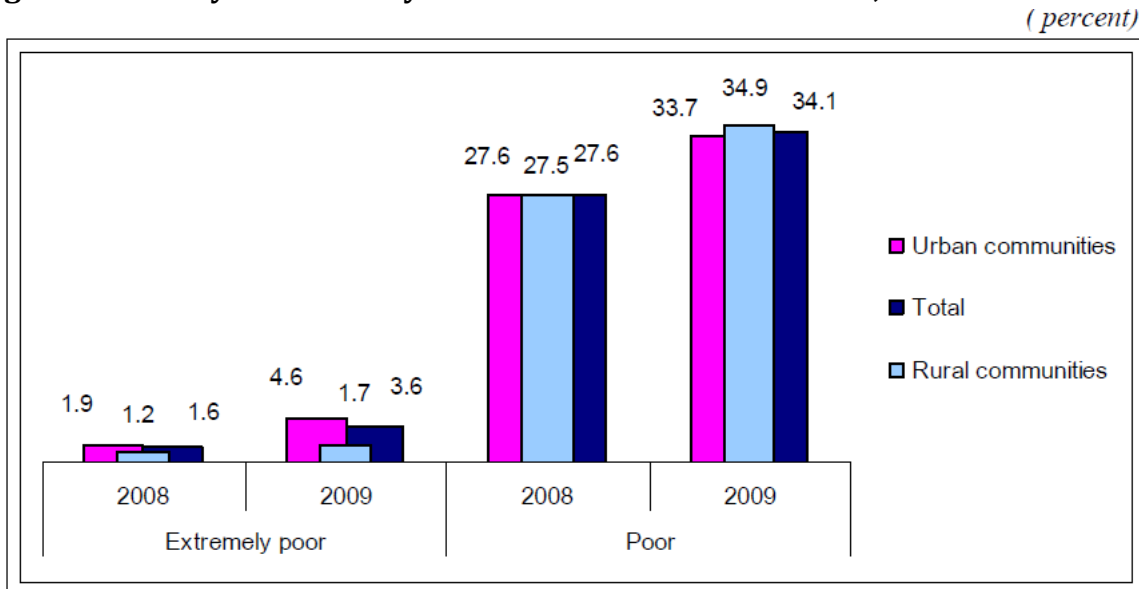
Source: NSSA, ILCS 1998/99, 2005, 2008/2009

According to Table 1, Armenia has achieved a remarkable reduction in poverty rates and a consequent improvement of living standards between 1998/99 and 2008. The percentage of poor population has decreased from 56.1 in 1998/99 to 27.6 in 2008 thus reducing the number of poor people almost by half within a 10 year time period. This implies that around 800,000 people were raised out of poverty being able to consume above the upper total poverty line. Next, looking at 2009 data, we discern that the percentage of poor people increased to 34.1 in 2009 from 27.6 in 2008. This increase in the poverty rate could be explained by the contraction of the economy by 14.2% in 2009 as a result of the global

financial crisis. Poverty severity likewise increased from 1.4% in 2008 to 2.4% in 2009 indicating about an increase in inequality among the poor (some poor people were pushed further from the poverty line, whereas some showed consumption patterns closer to it). Another interesting observation to draw from Table 1 is the difference between urban and rural poverty indicators. If in 1998/99 urban poverty was more prevalent (62.1% urban poverty versus 48.2% rural poverty), in 2009 more poor people were living in rural than in urban areas (34.9% rural poverty versus 33.7% urban poverty).

Nevertheless, despite recent remarkable economic growth rates (prior to financial crisis of 2008), according to basic poverty indicators approximately 1/3 of the population of Armenia or some 1million people continued to live below the poverty line in 2009 of which approximately 360, 000 lived in rural areas. The dynamics of rural and urban poverty incidences for 2008-2009 is portrayed in Figure 2.

Figure 2. Poverty Incidence by Urban and Rural Communities, 2008-2009



Source: NSSA, ILCS 2008/2009

Figure 2 implies that poverty in Armenia is not a primarily rural phenomenon. However, given the importance of agriculture in the economy of Armenia and a possible expansion of internal⁸ and external migration (mainly to Russia, the U.S. and Europe) as a result of declining on-farm and off-farm employment opportunities in rural Armenia, reduction of rural poverty in the country becomes a priority⁹.

⁸According to NSSA, in 2009 29.5% of internal migrants moved from urban to rural settlements versus 22.5% indicator from rural to urban settlements (from peripheral rural areas to towns in the core, from highlands to lowlands, etc)

⁹ See Section 2.2. about the importance of agricultural sector in the economy of Armenia

MCA – Armenia Program’s beneficiary communities are located in all the 10 regions of the country. Although each rural community has its own distinctive characteristics when it comes to the level and causes of poverty, there are a few general characteristics of poverty attributed to all rural communities which continuously impede development and rural poverty reduction in the country. In the next sub-section, characteristics of rural poverty in Armenia are presented. This will be useful for our further analysis in trying to examine the extent to which the MCA –Armenia Program has addressed those issues.

4.1.1. Characteristics of Rural Poverty in Armenia

According to the results of the most recent *ILCS* conducted by the NSSA, in 2009 the rural poverty rate exceeded the national average by 3.5 percentage points (34.9% rural poverty versus the national average of 31.4%). Moreover, compared with 2008, the rural poverty rate increased by 7.4 percentage points or by 26.9% versus 6.1 percentage points or by 22.1% (Table 1). This increase can be partially explained by the sharp contraction (14.4%) of Armenia’s economy in 2009 as a result of the global financial crisis. However, according to *ILCS* 2009 there are other impediments more of a perpetual character that continuously hamper rural development in Armenia.

Underdeveloped condition of physical and financial infrastructures (roads, irrigation systems, communication, processing and preserving facilities of agricultural products, access to sources of finance)

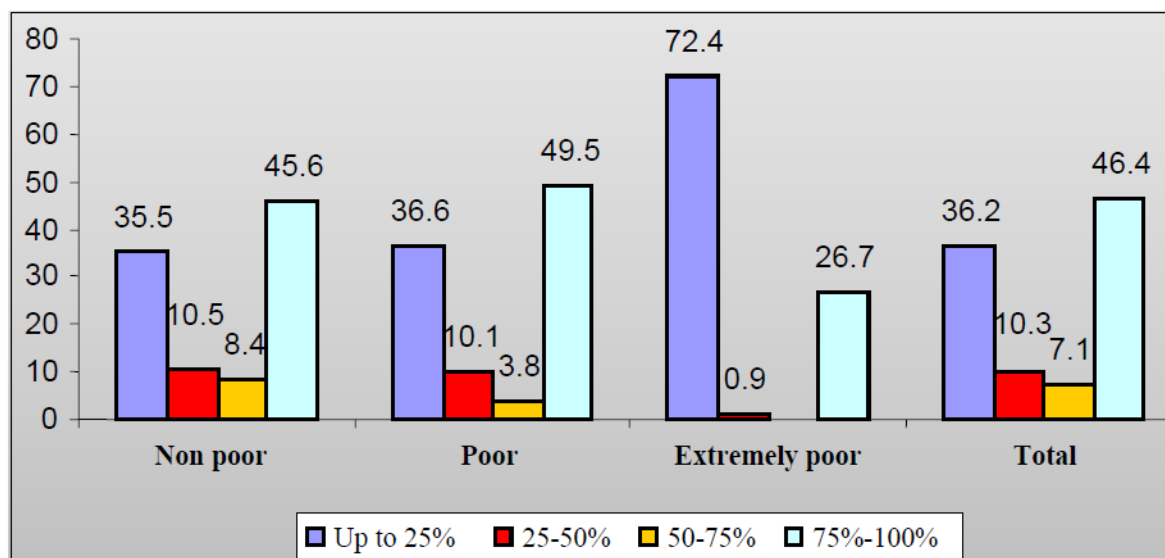
Insufficient and disproportionately low public investments in rural infrastructures during the first years of the country’s transition has resulted in a deteriorated condition of its rural roads and irrigation systems particularly vital for boosting agricultural production and improving the living conditions of the rural population. Inefficient pumping schemes associated with high maintenance and electricity costs, water losses incurred in the secondary and tertiary canals as a result of the poor irrigation network are some of the reasons behind a general decline of the total irrigated area compared to the pre-transition period. According to a study conducted by the World Bank (2004*b*), the proportion of arable land being irrigated declined from 54% in early 1990s to 39% in 2003 making efficient irrigation of only 60% of the farms feasible. At the same time, the absence of good roads or low quality roads paralyzes the commercialization of agriculture failing to lift it from subsistence level. Nevertheless, although substantial investments have been made both in road rehabilitation and irrigation infrastructures mainly through external sources of financing (World Bank, IFAD, Lincy Foundation, MCA – Armenia, etc), the *ILCS* 2009 report still mentions their state of underdevelopment as one of the key factors impeding rural development in Armenia. However, according to the same survey some improvements can be seen in the field in the last years. Particularly, the share of irrigated

land in 2009 has increased by 27.4% amounting 33% vis-à-vis 25.9% in 2007; 96% of the respondents had mentioned that the operation of irrigation systems had improved “significantly or to a certain extent” (NSSA, 2010). Almost 66% (lower by 1 percentage point compared with the previous survey) and 16% (lower by 6.8 percentage points compared with the previous survey) of the surveyed rural households had evaluated the condition of intra and inter- regional roads as poor.

While it has not been possible to find detailed empirical evidence about the link between rural poverty and the condition of rural roads, according to World Bank (2007) studies on Geographical Distribution of Poverty in Armenia, geographic isolation of rural communities is strongly associated with poverty in that communities with limited or no access to inter-community and inter-town roads tend to be poorer than those at the vicinity or with access to main roads and central markets.

ILCS 2009 provides a depiction of irrigated land by poverty rate (Figure 3).

Figure 3. Irrigated land by poverty rate, 2009 (percent)



Source: NSSA, ILCS 2008/2009

Figure 3 reveals that chances of poverty incidence rise with decreasing percentage of irrigated land. Almost 1/3 of the total cultivated land was irrigated up to 25%. The incidence of the highest extreme poverty (72.4%) was recorded among the category of households with up to 25% of irrigated lands. A regional breakdown of data on irrigated land reveals that Syunik, Shirak, Gegharkunik and Kotayk regions had the highest percentage of lands irrigated up to 25%. As we shall see below in Table 2, the poverty incidence in these regions (except for Syunik) has been highest among others.

Table 2 portrays the poverty incidence in Yerevan and the 10 regions (Marzes) of Armenia during 2008-2009. In the 5 poorest regions – Shirak, Kotayk, Lori, Gegharkunik, Ararat (highlighted in Table 1) – 52% of the population resided in rural areas. These regions account for 61% of the total rural population of Armenia .The highest poverty incidence recorded both in 2008 and 2009 was in Shirak (42.4% and 47.2% respectively). This region has suffered the most from the earthquake in 1988 and is located 1500-2000m above sea level which makes its lands as well as climate less favorable for agricultural activities¹⁰. Kotayk, Lori, Gegharkunik and Ararat have been the next poorest regions in the country. While high poverty incidence in Lori and Gegharkunik can be explained by the distance from the capital city markets as well as less favorable agricultural land, high poverty incidence in Ararat and Kotayk comes as a surprise taking into account their proximity to the core, a more favorable geographical location for agriculture (Ararat) and recent development trends of their regional economies (expansion of tourist industry in Kotayk, concentration of agricultural processing factories in Ararat). Vayots Dzor (44%) and Tavush (35%) experienced a higher increase in poverty incidence during 2008-2009.

Table 2. Basic poverty indicators by region and in Yerevan, 2008-2009 (percent)

	2008			2009		
	Extremely Poor	Very Poor	Poor	Extremely Poor	Very Poor	Poor
Yerevan	1.1	8.1	20.1	2.1	13.7	26.7
Aragatsotn	0.5	7	20.3	1.6	10.4	25.4
Ararat	1.6	15	31.3	3.4	26.5	39.8
Armavir	0.7	11	24.5	3.7	17.9	31.3
Gegharkunik	0.4	11.1	32	2.2	19.5	40.4
Lori	2.8	17.9	34.2	7.7	29.2	41.7
Kotayk	2.1	20.2	39.5	6.6	30.9	43
Shirak	4.6	21.2	42.4	5.5	28.5	47.2
Syunik	1.3	11.5	20.3	2.2	11.6	23.4
Vayots Dzor	1.9	8.6	21.1	1.6	15.9	30.3
Tavush	1.7	9.7	23.2	1.8	17.2	31.3
TOTAL	1.6	12.6	27.6	3.6	20.1	34.1

Source: NSSA, ILCS 2008/2009

¹⁰According to World Bank studies on Geographical Distribution of Poverty in Armenia, communities located at high elevations displayed higher poverty incidence (due to climatic conditions) than those at medium and low elevation levels

In 2009, rural households on average derived 35.6% of their total income from agriculture (NSSA, 2010) as compared to 38.8 % in 2008. Given the importance of plant cultivation (87.8% of rural households were engaged in plant cultivation), poverty incidence is higher among those with no access to land or with a smaller irrigated land area (Table 3 and Figure 3).

Table 3. Poverty incidence in Armenia by access to and size of land (percent)

Size of land (hectare)	2008		2009	
	Extremely Poor	Poor	Extremely Poor	Poor
0 ha	0.5	21.4	3.1	41.9
Up to 0.2 ha	1.1	24.3	2.1	33.2
0.2 - 0.5 ha	0.9	20.9	1.2	27.8
0.5 - 1 ha	1.7	20.5	1.3	28.6
1 ha and more	0.5	28.2	1.3	31.5
TOTAL	1.4	24.4	2.7	30

Source: NSSA, ILCS 2008/2009

According to Table 3, poverty incidence in 2009 has been the highest (41.9%) for households with no access to land. Interestingly, compared with that of 2008, this indicator has almost doubled. Given the low incomes derived from farming, many farmers sell their lands to wealthy landowners. Moreover, the recent (January 19, 2011) call by the government of Armenia for consolidation of agricultural lands embedded in the low profitability of small and fragmented farms will perhaps limit farmers' access to land even more. However, if the tendency of selling agricultural land to wealthy landowners is not accompanied by creating off-farm employment opportunities and equal income distribution, growth in the agricultural sector and rural poverty reduction might be postponed for more decades. In fact, in its recent report, the UN has expressed its concerns about the ongoing concentration of agricultural land in the hands of the rich speculating on the possibilities of poverty increase in rural areas and a consequent new wave of emigration (Asbarez, 2010).

Implications for aid intervention

The above presented discussion on the characteristics of rural poverty in Armenia highlights the following priority areas toward which foreign aid should be directed if it is aimed at rural poverty reduction in the country.

a) Improving physical infrastructures

Given the poor condition of rural road and irrigation infrastructures and the extent to which it hampers rural development and poverty mitigation (lack or limited access to central markets, water losses, inability to shift to high income agricultural crops because of limited supply of irrigation water, low percentage of irrigated land, etc), prioritized investments in this area could have a substantial indirect impact on the improvement of the well-being of the rural poor.

b) Increasing access to resources

Households with no or limited access to land and other resources are exposed to a higher poverty incidence. Thus, rural credit programs, land allocation schemes as well as on farm trainings could be possible areas where foreign aid could mitigate rural poverty.

c) Preventing/mitigating risks associated with crop losses

The geographical and climatic conditions of Armenia preclude successful harvesting on a continuous basis. Crop losses are inevitable in many rural communities because of unfavorable weather conditions, prevalent diseases and pests, lack of freezing facilities, inadequate packing, etc. These factors restrain agricultural produce for commercial purposes also increasing food insecurity and poverty among rural households. Introduction of crop insurance schemes (connected with natural disasters) as well as projects addressing the rest of the issues that bring about crop losses could be possible areas for aid intervention.

4.2. MCA – Armenia Project and Poverty Alleviation in Armenia: An Evaluation

In January 2004, the government of the U.S. established the Millennium Challenge Corporation (MCC) launching its foreign assistance program to more than 40 developing countries in the world aiming to fight global poverty.

The program was innovative in many aspects, among them: a) through MCC program the U.S. Government aimed to deliver a “smarter” foreign aid prioritizing good policies, country ownership and traceable results. Thus, in line with foreign aid allocation arguments proposed by Burnside and Dollar (2000), MCC partnered with developing countries with good policies meeting the eligibility criteria¹¹; b) MCC triggered country-led solutions as

¹¹ MCC website lists 17 eligibility criteria and use of supplemental information on the assessment of which countries have been selected. See <http://www.mcc.gov//pages/selection/indicators>

the participating countries were required to develop sustainable growth and poverty reduction proposals based on identified priorities. Hence, the development projects implemented within the scope of MCC were by large attuned to local needs as recognized and proposed by the recipient states themselves reiterating the importance of recipient countries' participation in the design of foreign aid projects proposed by Sachs (2005); c) MCC also triggered country-led implementation by establishing local accountable entities in charge of managing and monitoring program implementation through all its stages. Nevertheless, it should also be noted that foreign aid provided within the scope of MCC is bilateral allowing speculations upon the donor's possible political, economic and security interests in its aid allocation preferences (Le and Winters, 2001).

4.2.1. MCC Objectives in Armenia

The general objective of MCC funded projects in Armenia has been the *“reduction of rural poverty through a sustainable increase in the economic performance of the agricultural sector of Armenia”* (MCC, 2010). Embarking on prioritized investment needs in agriculture and rural development proposed by the government of Armenia, a large proportion of MCC funding was directed toward the rehabilitation of rural infrastructures (rural roads and irrigation schemes). In addition, the third sub-project (Water to Market) funded by MCC adopted a more direct targeting mechanism reaching out to rural farmers and agribusinesses through provisions of technical and financial assistance (trainings, credit, irrigation technologies). The newly established local entity Millennium Challenge Account – Armenia was in charge of managing and monitoring the implementation of these projects.

Description of MCA – Armenia Projects

Rural Road Rehabilitation Project (RRRP)

Initially, RRRP aimed to rehabilitate 943 kilometers (more than one third of the lifeline road network of Armenia) of high priority rural roads in the country. The objective of the project was *“to expand the access of over 265 project beneficiary rural communities to agricultural markets and services, non-farm job opportunities as well as social infrastructures”* (MCC, 2010). As prescribed by the Contract, the government of Armenia was held accountable for the maintenance of the rehabilitated roads in the future. The project was later re-scoped as a result of the devaluation of the USD and low estimates of economic rate of returns for few of the road rehabilitation designs. In June 2009, when only 24.4 km of rural roads were rehabilitated, MCC ceased financing RRRP due to its increasing concerns about democratic governance in the country¹². The World Bank further

¹²Presidential elections in 2008 and consequent violence and restrictions imposed on the freedom of press violated the democratic governance principles pertinent for the country's continuous eligibility for MCC funding.

undertook the funding of 150 km of rural road rehabilitation designed within the scope of the MCC Program prior to the RRRP termination.

Irrigated Agriculture Project (IAP)

The general goal of IAP has been “to increase the productivity of the agricultural sector by extending and improving the quality of the irrigation system, strengthening the entities that manage the system and enabling farmers to commercialize their products” (MCC, 2010). To achieve project goals, two Activities have been designed and implemented within the scope of IAPP:

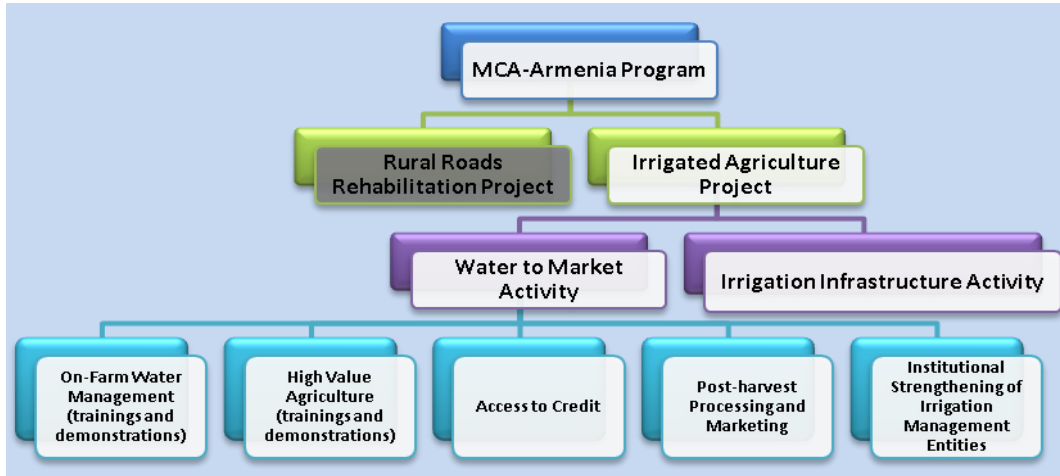
a) Irrigation Infrastructures Activity (IIA)

The largest component of the MCA-Armenia Program, IIA has envisaged the rehabilitation and construction of irrigation infrastructures in the country such as *main and tertiary canals, pumping stations, gravity schemes and drainage systems*. The investments within the scope of this Activity have been aimed to decrease water losses, ensure reliable irrigation water supply, save electricity, and increase crop productivity in drainage areas. The ultimate objective of the Activity has been increased irrigated land area for the rural households which will also boost farmers’ income derived from land cultivation and contribute to rural poverty reduction.

b) Water to Market Activity (WTM)

A more reliable irrigation water supply ensured by the rehabilitation of irrigation schemes would enable farmers to cultivate high value agricultural crops (fruits, vegetables), which yield more income per hectare than low value crops (cereals). To safeguard a smooth transition from low to high value crop cultivation, on-farm trainings have been organized for farmers directly targeting their needs for new knowledge on farming practices. Within the scope of the rest of WTM components *a)* irrigation technologies have been introduced and installed in the land plots of progressive farmers also serving for demonstration purposes to the rest of the farming community; *b)* farmers and agribusinesses have been continuously provided with consultations on marketing, food safety and environmental issues; *c)* institutional capacities of water management entities have been strengthened; *d)* consolidation and collection centers have been established. To be able to adopt the agricultural practices promoted by the Activity, training participant farmers have been exposed to the opportunity of applying for rural credits within the “*Access to Credit*” component of WTM Activity. Figure 4 summarizes the detailed structure of MCA – Armenia’s projects.

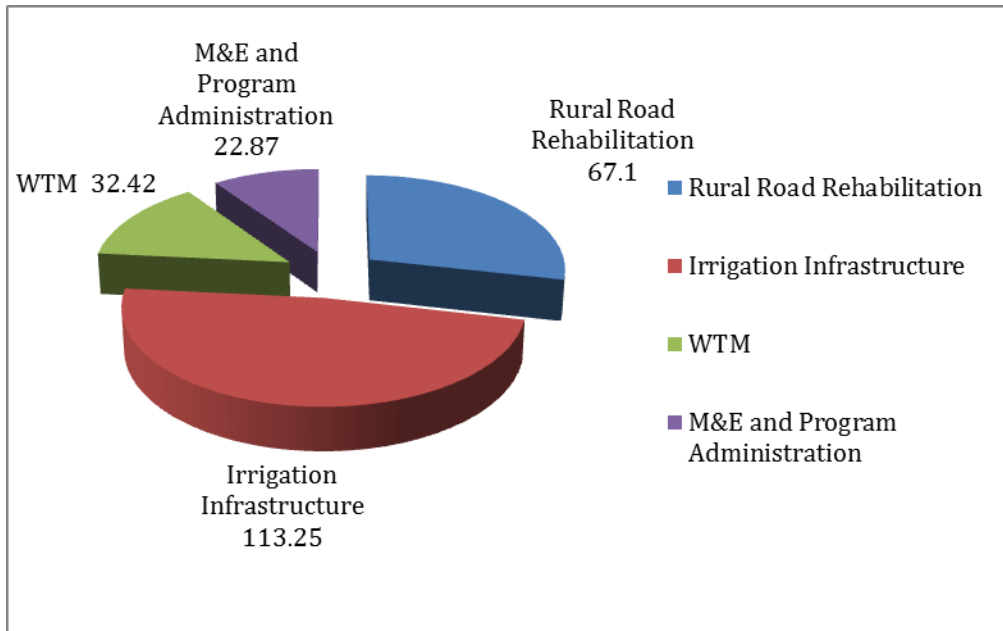
Figure 4. Structure of MCA –Armenia Program



Source: MCA- Armenia

Figure 5 depicts total sectoral obligations of MCA- Armenia Program before the termination of RRRP in June 2009.

Figure 5. MCA- Armenia’s obligations by key sectors (million USD)



Source: MCA – Armenia

As illustrated in Figure 5, the vast share of investments (48%) has been designated toward rehabilitation of irrigation infrastructures. In retrospect, it is evident that MCA- Armenia’s projects have been, by large, planned to address the needs of the rural poor. Deteriorated

rural infrastructures (irrigation and rural roads), limited or no access to financial resources, shortage of processing and preserving facilities among others have been highlighted by the rural respondents of the ILCS 2008/2009 as major impediments of rural development and poverty reduction in the country. Nevertheless, apart from the initial design of the projects, it is also important to look at the geographic and sectoral allocation of project activities to reveal the extent to which the poorest regions, sub-sectors, groups and their needs have been targeted and addressed within the scope of MCA – Armenia’s projects.

4.2.2. Geographic and Sectoral Allocation of MCA – Armenia’s Programmatic Activities

In its recent (March 2011) “All about results” publication MCA – Armenia summarizes the major achievements of its projects implemented since 2007. Meanwhile, the publication provides the geographic distribution of the Program’s beneficiary communities and farmers trying to evaluate the extent to which the program has managed to target the poorest regions of the country.

Geographic and sectoral distribution of IIA and RRRP

Table 4 summarizes MCA- Armenia’s interventions in each region within the scope of IIA.

Table 4. Constructed/rehabilitated irrigation infrastructures within the scope of IIA (item)

Region	Main Canals	Pumping Stations	Gravity Systems	Drainage Systems	Tertiary Canals	Total	Percentage of Total
Aragatsotn	2	2	0	0	11	15	11.81
Ararat	1	9	1	1	21	33	25.98
Armavir	1	1	1	1	23	27	21.26
Gegharkunik	0	2	1	0	9	12	9.45
Lori	0	0	1	0	3	4	3.15
Kotayk	1	0	0	0	4	5	3.94
Shirak	1	0	1	0	7	9	7.09
Syunik	0	1	0	0	3	4	3.15
Vayots Dzor	0	0	0	0	7	7	5.51
Tavush	0	2	0	0	9	11	8.66
TOTAL	6	17	5	2	97	127	100.00

Source: MCA – Armenia, “All About Results”, 2011

Table 4 shows that a vast portion of construction/rehabilitation of irrigation infrastructures has been implemented in Ararat (25.98%) and Armavir (21.26%). The

poorest regions such as Lori, Shirak and Kotayk have received incomparably lower investments toward the rehabilitation of irrigation infrastructures in their respective areas. Prior to the termination of RRRP in 2009, rehabilitation of rural roads has taken place in Shirak and Aragatsotn with 90% of the investments implemented in Shirak.

Geographic and sectoral distribution of WTM Activities

A look at the allocation of WTM activities in the country reveals an emphasized bias in donor's investments in Ararat and Armavir. Table 5 summarizes the geographical distribution of WTM Activities.

Table 5. Project activities within the scope of WTM Activity (unit)

Region	Training Component		OFWM and HVA Components		PPM Component		Access to Credit Component	
	Trained Farmers	Percentage of TOTAL	Demonstration farms	Percentage of TOTAL	Collection/Consolidation Centers	Percentage of TOTAL	Number of Loans	Percentage of TOTAL
Aragatsotn	8609	10.84	21	9.77	1	4.76	72	7.74
Ararat	16466	20.74	48	22.33	5	23.81	321	34.52
Armavir	22269	28.05	52	24.19	3	14.29	324	34.84
Gegharkunik	5303	6.68	19	8.84	1	4.76	64	6.88
Lori	4562	5.75	5	2.33	1	4.76	10	1.08
Kotayk	3882	4.89	9	4.19	0	0.00	27	2.90
Shirak	3097	3.90	11	5.12	0	0.00	1	0.11
Syunik	1814	2.29	11	5.12	1	4.76	37	3.98
Vayots Dzor	5436	6.85	12	5.58	5	23.81	36	3.87
Tavush	7947	10.01	27	12.56	4	19.05	38	4.09
TOTAL	79385	100.00	215	100.00	21	100.00	930	100.00

Source: MCA – Armenia, “All About Results”, 2011

As portrayed in Table 5, out of 930 disbursed loans, only 1 loan has been provided to the poorest region of the country, Shirak, versus 321 and 324 loans provided to the relatively better off regions of Ararat and Armavir respectively. Likewise, the bias toward Ararat and Armavir is apparent in the allocation of the rest of the project activities across the other components of WTM Activity.

Table 6 summarizes the geographical distribution of all beneficiaries¹³ of all the projects implemented within the scope of the MCA- Armenia Program. It also refers to regional poverty incidences to illustrate the extent to which Program beneficiaries have been residing in the poorest regions of the country.

Table 6. Geographic distribution of MCA- Armenia’s total beneficiaries

	2009				
	Poverty Incidence	Number of Program Beneficiaries	Percentage of TOTAL	Rural Population as a Percentage of Total Population	Rural Population as a Percentage of Total Rural Population
Aragatsotn	25.4	27019	6.32	76.60	9.27
Ararat	39.8	163320	38.18	70.57	16.82
Armavir	31.3	134809	31.52	64.19	15.58
Gegharkunik	40.4	29856	6.98	67.00	13.86
Lori	41.7	1593	0.37	41.36	10.00
Kotayk	43	10993	2.57	43.97	10.53
Shirak	47.2	36093	8.44	39.64	9.57
Syunik	23.4	6199	1.45	32.18	4.22
Vayots Dzor	30.3	3692	0.86	65.41	3.13
Tavush	31.3	14185	3.32	60.85	7.01
TOTAL	34.1	427759	100.00	54.76	100.00

Source: MCA- Armenia, “All About Results”, 2011 and ILCS 2008/2009

The first four poorest regions (Shirak, Kotayk, Lori, Gegharkunik) inhabited by almost 44% of the total rural population in the country account for only 18.4% of the Program’s total beneficiaries. Although the poverty incidence is also high in Ararat (39.8%), its number of Program beneficiaries is more than 5 times higher than that of Gegharkunik, which depicts only a slightly higher poverty incidence (40.4%) than Ararat (39.8%). It is also evident that Ararat and Armavir inhabited by only 32.4% of the total rural population and located at the vicinity of the capital city and markets have both had significantly higher number of Program beneficiaries. However, these 2 regions also display the highest percentage of rural population.

¹³ MCA –Armenia provides beneficiary estimates categorizing them into 3 following groups: national or regional investments (IIA and RRRP), broad based investments (ISSA) and targeted projects (WTM). See <http://mca.am/new/enversion/pdf/BAforGC-ENG.pdf>

It is interesting to see the disaggregation of the beneficiaries of some of the projects implemented within the scope of WTM Activity by gender¹⁴. In the scope of the Training Component of WTM Activity, only 24% of the trained farmers have been female. Likewise, only 9% and 17% of total loan recipients and owners of installed demonstration farms have been female. Taking into account the emphasized vulnerability to poverty among female-headed households and the increase in female-headed households in the rural communities in 2009 by 11.9% as compared to 2008, more female participation in the project activities could address their needs and contribute to poverty reduction among this group. Although this issue has been recognized and addressed by Program specialists, cultural peculiarities have impeded women's active participation in community events misrepresenting them as strong decision makers.

At the same time, the majority (58.17%) of rural credits have been provided to finance installation of greenhouses and freezing facilities, whereas animal husbandry has received only 6.56% of financing during the first compact year of WTM Activity. The provision of rural credits to finance animal husbandry has later been terminated since it has been difficult to monitor the purposeful use of the loans. While no evidence has been found between poverty incidence and rural households' access to greenhouses and freezing facilities, according to a study conducted on the Geographical Distribution of Poverty in Armenia (World Bank, 2007), households that possessed livestock, were less vulnerable to poverty. Since the poorest region Shirak is favorable for animal husbandry, the cessation of rural credit provisions for this purpose has clearly harmed the rural poor in the region bringing down the amount of loans provided to one. In addition, according to ILCS 2009, 78.1% of loan receivers (for agricultural purposes) through banks and development programs were non-poor whereas only 0.9% of loan receivers were classified as extremely poor. This indicators signal that the extremely poor rural households continue lacking access to financial resources and are thus trapped in a continuous poverty cycle and inability to expand agricultural production.

4.2.3. Discussion

The above presented examination of sectoral and geographical allocation of the Program's activities in the country reveals two important aspects that necessitate further discussion.

First, sectoral allocation patterns of MCA-Armenia projects clearly indicate about the Program's emphasized investments in sectors (RRRP and IIA projects) that have an indirect impact on the poverty alleviation of the rural poor. If placed in the theoretical framework

¹⁴ Disaggregation of male and female beneficiaries of the WTM Activity has been tracked more accurately given the direct targeting approach of the Activity, whereas in case of IIA and RRRP the disaggregation has been done based on male and female population residing in the project beneficiary communities

suggested by Le and Winters (2001), the majority (over 50%) of Program funds have been invested in sectors which promote long-term growth in the agricultural sector having an indirect impact on the income and well-being of the rural poor. However, an effective foreign aid program, according to Le and Winters (2001) should also focus on direct targeting schemes identifying and working with groups that are vulnerable to poverty. Although all of the MCA-Armenia's projects have been intended to work in a complementary manner leading to an ultimate rural poverty reduction, only WTM Activity through provisions of technical and financial (rural credit) assistance to the farmers has adopted a direct targeting mechanism when working toward achieving its project goals, however, constituting only around 14% of the Program's investments. While WTM Activity has allowed reaching out to the rural poor farmers, in a few cases it has also facilitated free-riding when individuals not belonging to the target group have been able to reap the benefits of the project (non-farmer training participants and credit borrowers). This attribute has been mentioned by Le and Winters (2001) as an inevitable shortcoming of the direct targeting approach. Unfortunately, Le and Winters (2001) do not further clarify what the optimum balance should be between projects promoting agricultural growth and directly targeting the rural poor. Part of the difficulty is associated with the specifics of each country when one panacea might not work for everyone. In addition, the level of importance of the two approaches can be better assessed only after rigorous program impact analyses are conducted.

Second, the geographical allocation of the Program's activities reveals that Ararat and Armavir have had the most beneficiaries of the projects implemented within the scope of the MCA-Armenia Program. While it is evident that these regions are agriculturally the most prosperous in the country due to favorable climate and vicinity to the core, it is also apparent that they do not display the highest poverty incidence among others (see Table 1). On the contrary, the first 4 poorest regions (Shirak, Kotayk, Lori, Gegharkunik) of Armenia, which are less favorable for growing high value agricultural crops and are mainly engaged in animal husbandry and harvesting wheat and potato have had a relatively smaller number of Program beneficiaries. The poorest regions have not been targeted the most also within the scope of WTM Activity through direct targeting mechanism. Rather, in cases when animal husbandry could be financed in the poorest region of Shirak in the scope of *Access to Credit Component* of WTM Activity, once again there has been a clear bias toward provisions of rural credits to other sectors (orchards, greenhouses, freezing facilities, etc) concentrated in Ararat and Armavir. Taking into account that the goal of MCA-Armenia Program has been poverty reduction through increasing productivity in agriculture, one could explain the concentration of the Program's main activities in regions that are more favorable for agricultural activities and thus would yield the most economic benefits.

However, this pattern of allocation can also accentuate inequality in terms of addressing the poverty issues of the poorest regions to a less extent giving preference to regions which are already relatively better off relishing the advantages of their geographic proximity to central markets and favorable climate for agriculture. A mitigating approach to the observed unequal allocation of Program activities could be embedded in possible speculations about agricultural transformation stimulated by the Program. Concentration of most Program activities in agriculturally favorable regions (Ararat and Armavir) could increase agricultural productivity lifting the sector from its subsistence level towards a more specialized agricultural production and leading to a further structural transformation of the whole economy, in which *“increasing proportion of economic output and employment are generated by sectors other than agriculture”* (Staatz, 1998). Although the income of rural households derived from agriculture in 2009 decreased by 8% as compared to 2008, at the same time the income from wage employment in 2009 decreased by 10% as compared to 2008 (NSSA, 2010a). This signals about decreasing incomes derived from agriculture at the farm level which, however, is not accompanied by increasing employment opportunities in non-agricultural sectors. During 2005-2009, agriculture provided employment to 45.62% of Armenia’s labor force without severe fluctuations. Construction was the only industry which had experienced a significant growth in the country during 2007-2008 more than doubling employment in the sector. During the same time period agriculture recorded a 4% decrease of employment in the sector. However, growth in the construction sector accelerated due to the inflow of financial resources from abroad rather than a transfer of resources from agriculture. Thus, possible inferences about agricultural transformation in the country brought about by the Program are but untimely and doubtful.

Despite the observed bias of the Program implementation in less poorer but agriculturally favorable regions, the Program has addressed a few implications for foreign aid intervention aiming to reduce rural poverty in the country. It has invested heavily in construction/rehabilitation of rural physical infrastructures imperative for the growth of the agricultural sector and ultimate poverty reduction. The Program has also increased farmers’ (although unequally) access to resources through provision of technical and financial assistance. Introduction of compensation schemes for crop losses as a result of unfavorable weather conditions has not been planned by the Program, which, however, could have had a significant impact on the well-being of the rural poor.

5. CONCLUSION

This master thesis has sought to study the role of foreign aid in combating rural poverty in Armenia through examination of the allocation patterns of the activities implemented within the scope of MCA - Armenia Program. By examining the geographic and sectoral allocation of the activities in the scope of the Program and presenting the characteristics of rural poverty in the country, this study has aimed to find out whether the Program has addressed the regions and sectors/groups most vulnerable to poverty. The findings are two-fold.

First, although all the projects implemented within the scope of the Program have aimed to reduce rural poverty in the country, only 14% of the investments have directly targeted the poor through WTM Activity. The remainder of the investments made in rehabilitation and construction of rural infrastructures had aimed to indirectly reduce rural poverty. Although investments in vital rural infrastructures can be considered strategic for the country's sustained development, direct investments to improve knowledge and farming practices of the target group (farmers) are also important and can have a faster impact on improving their well-being and reducing poverty levels. In addition, given the vulnerability of construction/rehabilitation industries to corruption and rent-seeking, the extent to which the allocation of resources toward this sector guarantee benefiting the rural poor is doubtful. In this regard, an implication for future foreign aid programs is a need for more emphasized investments in the targeted group (s) that will directly impact their well-being minimizing the role of intermediary sectors and actors.

Second, the examination of the geographic allocation of the Program's activities in the country reveals that it has mainly targeted agriculturally prosperous Ararat and Armavir, which, however, display a lower incidence of poverty than the poorest regions in the country. However, given the significant share of the labor force employed in the primary sector and stagnating employment opportunities in non-agricultural sectors possible agricultural transformation processes stimulated by the Program are untimely. Thus, a more equitable geographical distribution of Program activities could prove more effective in mitigating poverty in the poorest regions of the country.

At a broader scale, if poverty reduction and development is a priority, it is reasonable to note that foreign aid intervention alone cannot help (if not disturb) achieving these goals unless the local resources are fully mobilized and ready to absorb and adapt the proposed improvements to domestic needs. The trained farmers cannot successfully apply the knowledge they gain unless the local system provides correct incentives for them to be efficient. Thus, a complex rather than a single panacea for poverty reduction should be considered in which foreign aid works complementarily with recipient state's firm will to make aid work for development and improvement of living standards of the poor.

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