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**“IMPACTS OF SOCIAL SAFETY NETS POLICIES.
THE POWER OF TRANSFER PROGRAMS”.**

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Abbreviations and Acronyms

CT	Cash Transfer
CCT	Conditional Cash Transfer
IHS2	Integrated Households Survey 2004
IHS3	Integrated Households Survey 2010
IHS4	Integrated Households Survey 2016
IHPS	Integrated Households Panel Survey 2013
LSMS	Living Standard Measurement Studies
MMP	Mary's Meals Program
SCTP	Social Cash Transfer Program
SFP	School Feeding Program
UCT	Unconditional Cash Transfer
WASH	Water, Sanitation and Hygiene
WFP	World Food Program
WB	World Bank

ABSTRACT

This thesis aims to assess whether social safety net policies used in a very poor country can concretely provide relief from poverty in the short run, while encouraging children education in the long run. The economic literature largely debates on the effectiveness of the social safety net tools, when applied in extremely poor condition. However, if well-tuned to target the right beneficiaries, social policies can be effective also in the poorest countries (Smith, 2001). In fact, by looking at Malawi, among the poorest countries in the world (170th out of 188 countries in the 2015 UNDP ranking), one can find highly significant effects for social safety net policies.

More in detail, the first chapter of the thesis analyzes the different forms of social policy transfer, either in cash or in-kind, and provides an overview of the policies literature and their practical applications.

The second chapter explains why Malawi has been chosen as a field of analysis. Among the poorest countries in the world, it is a country that adopted both cash and in-kind policies. The chapter describes the country profile and socio-political background, and the major efforts the country has gone through to improve living conditions of the poorest. In fact, despite its poverty situation, the Malawian government is deeply motivated to

eradicate poverty and ending starvation, improving and protecting the livelihood of the most vulnerable.

Finally, the third chapter provides an impact analysis of the main social safety net policies adopted in Malawi after 2004, by assessing their impact on school attendance. First by looking at the impact on school attendance of all social policies used in the country, which target ultra-poor people aged from 6 to 26 years old (considered as a broad schooling range period). Ultra-poor people are defined as living in families with no assets, very low income, being labor constrained and with a dependency ratio higher than three. Secondly, by looking at the impact of the two major in-kind programs present in this ambit (School Feeding and Mary's Meals, which both give daily meals to children attending the primary school) and measuring their impact on the primary school attendance of children aged 6 to 13 years.

In both kinds of analysis, we find significant and positive policy effects. However, if School Feeding and Mary's Meals programs overlap in the same district, their policy impact is insignificant. Our results confirm and usefully complement the previously available evidence from the literature, which was linked to the experimental case studies, and thus presented problems of external validation.

CHAPTER I: SOCIAL SAFETY NET PROGRAMS IN DEVELOPING COUNTRIES

INTRODUCTION

This first chapter of the thesis is dedicated to the description and literature debates of the most famous social safety nets policy programs, used and applied in most developing countries, for their strong contribution to increase children education and alleviate hunger and poverty. The programs used to reach these goals, by trying to increase children school enrollments in primary education, can be distinguished in: in-cash or in-kind. Cash transfer and school feeding remain the most used tools, and they have deep application. Both programs act differently, but targeting the same scope, helping to reduce the country poverty, by protecting the most vulnerable. Malawi, as one of the poorest countries in the world, uses both types of programs and the impact results on school attendance in primary education are positive for all of them.

The first part of this chapter dedicates attention to cash-based transfer programs. This is perhaps the most widely used policy tool across the world. The second part of the chapter focuses on in-kind programs, by describing their origin, literature and practical use. Some comparative assessment is finally provided. Appendix A is dedicated to the description of several applied programs, either in cash or in-kind.

1. WHAT IS A CASH TRANSFER PROGRAM?

One of the major issues a government of a developing country must deal with is the reduction of the poverty level. Since the beginning of the nineties, Latin American countries have started with the implementation of cash transfer programs, specifically addressed to sustain children and women. Over the years, the same type of policy commenced to have application also in countries, where poverty is more severe, such as Malawi and Bangladesh. Cash transfer is a payment, usually in cash, directly transferred to targeted and selected people, with the specific purpose to improve their living conditions in the short run, while increasing their investment in human capital in the long run. The first CT program was set up in 1997 in Mexico, following later by Brazil and Bangladesh. By 2008, all Latin American countries, and some African countries, such as Burkina Faso, Nigeria and Kenya introduced the policy tool as well, followed by Middle East, Turkey and Yemen, Pakistan, India, Cambodia, Indonesia and Philippines in later years. The role of CT can change from a place to place. The environment where the program operates influences the socio-economic aspects. For instance, Bangladesh experiences a large-scale program of CT, with the specific intent to reduce education gender disparity. Indonesia uses the program immediately after the Asian financial crisis, to avoid school drops out. In African countries, (such as Kenya and Tanzania) the program aims to cope with the number of orphans generated

by the spread of the HIV disease. Chile utilizes the CT program to increase the use of social workers. Other countries, such as Cambodia, Malawi, Morocco, Pakistan, and South Africa have still CT projects at the pilot stage. In places where poverty moves from a generation to another, such as Latin American countries, the CT is very common since years by now, and the major application reason is to reduce social inequality (Fiszbein et al, 2009). Different contexts may require different forms of cash assistance. Local governments usually identify the needs and priorities and whether cash transfers are appropriate to help those needs.

1.1 CONDITIONAL OR UNCONDITIONAL CASH TRANSFERS

The cash transfer can be conditional or unconditional. When conditional the cash is distributed to individuals or households with the respect of certain conditions, such as children attending school or being enrolled into school, and mothers attending health centers for childbirth. When Unconditional, the transfer is simply made by cash, transferred to individuals and/or households, without any conditions or requirements. The beneficiary receiving the cash, or voucher, disposes freely of the amount, without any constraint (Holmes and Uphadya, 2009).

The economic literature debates on the best way to apply the transfer tool: *Should it be conditional or unconditional?* There is not a specific theory behind the choice of implementing a conditional or unconditional transfer. Important evidence comes from the practical use of the policy.

Das et al. (2005) maintain that a conditional transfer can restore market inefficiency, or it can improve equity by redistributing resources to the poorest. In fact, most of the conditional cash transfer programs have two major purposes: first, to provide useful information on households' behaviors; secondly, as a screening mechanism for targeting resources to poor households (Holmes and Uphadya, 2009). We can generally admit that CT can increase welfare in society, either by protecting people from their own irrationalities and alleviate market failures (efficiency objective), or by providing incentives to redistribute resources (equity objective). Certainly, the choice of the right good to impose the condition is crucial. Referring to the efficiency objective, the conditionality can be necessary in society where the attention to human capital development of children is very low. Irresponsible parents do not consider investing in the human capital of their children, leaving the government to take over the responsibility and to protect children from bad parental behaviors. Also, when a cash transfer is already in use, a rationale for the conditionality is to avoid undesirable spending of the transfer. Because the unconditional transfer does not require a specific constrain, the irresponsible beneficiary could use the amount for more selfish purposes. On another side the conditionality implies also the consideration of certain constrains, which could address to the use of the unconditional. Such constrains behind a cash transfer mechanism can involve the supply side, the implementation

capacity of the government implementing the transfer, as well as cost benefits of the policy. More specifically, A) *Supply side constraints* occur when a policy aims to reach a certain objective, however the beneficiaries side misses completely the basic tools to benefit from the policy. This is the case of a CCT for children attending schools, in places where families' houses are far away from schools and local transport is inexistent. B) *Implementation capacity constraints* are related to the lack of government capacity to be reliable to achieve its objectives. Many countries have limited administrative skills or little experience in result-oriented management; low salaries or poor guidance and supervisions can very much affect people motivation. Therefore, capacity-building interventions involve more than supplying with computers, vehicles or administrative supervision. Those countries suffer from constrain in capacity implementation and they require behavioral change and public service reforms. C) *Cost benefits considerations*. Very often the implementation of a conditional policy can be very expensive, and the policy may miss the benefit. Before to implement a CCT program a cost benefit analysis is necessary, in order to avoid costs higher than the benefits of the project.

Among the different constrains, a conditional cash transfer can experience a distortion in the households 'consumption decision, even by reducing family welfare sometimes. By imposing conditions, the policymakers

provide incentives for households to take an action that they would not ordinarily take on their own. Das et al. (2005) argue in favor of the unconditional cash transfer. The reason is because the efficiency of a conditional cash transfer program depends on how well it addresses market failures arising from different preferences, and how well it targets resources to a group.

Practical experiences demonstrate that, in Latin American countries, the conditional transfer works better than the unconditional, while in African countries the unconditional seems to better suit to the local culture. Based on Latin American positive experiences, many agencies, such as World Bank, strongly encourage also African countries to use the CCTs. However, the best practice between the choice of the conditional or unconditional seems to link the transfer to the poverty level differences among the countries. In Africa, for instance, CT projects do not target all the poor, but focus on those who are extremely poor, generally with high dependency ratio¹, or people with labor constraints. In a nutshell, in Africa, cash transfer aims at reaching the households who are unable to access to the labor market at all. In Latin American countries, as well as in other countries with similar poverty level, people receiving the benefit, have easily access to labor market, having already a minimum level of

¹ Dependency refers to the numbers of people not able to work, because of the age or sick reasons, living within the households. It usually includes: children from 0 to 17 years old or elderly 65, or people between 18 and 65 unable to work.

subsistence. Moreover, African countries suffer from a less developed social organization, making more complicate the dispatch and control of the conditions. Poorer countries have lower general cultural level, poor social organization, therefore an unconditional transfer can better suit the country needs. In this case, the social unconditional policy would better fit in the poverty reduction policy purpose. Another aspect to consider is that an unconditional transfer can often lead to a lower cash transfer policy efficiency, due to the irresponsible behaviors of its beneficiaries, who are willing to spend the amount for other purposes, different from the target ones. However, a study conducted by Benhassine et al. (2013), demonstrated, instead, how an unconditional transfer in Morocco, labeled to school attendance, and provided to fathers instead of mothers, reported high school attendance rates and generally positive impacts on children education.

A conditional transfer better responds to a more structured society needs, by helping the local economy to growth. The concept of condition in CCT ensures that the beneficiaries act in a proper manner, without also changing any beneficiaries' behavior. It is also true that some families can keep receiving the benefit, just for the sake of a little extra money in the pocket. Perhaps a family is aware of how bad the near school is. However, they keep going sending children to school, instead of learning perhaps how to tend a field. A general suggestion regarding the

application of a conditional transfer is that, before to apply a CCT program, it is essential to investigate the socio-cultural and political conditions of the population where the policy applies.

It is also interesting to see how the condition appears to have a better impact on schooling issues, while the unconditional results to work better to solve social issues. Evidence in favor of this assumption comes from Baird et al. (2010). With a randomized control trial, the authors analyze simultaneously the impact of a conditional and unconditional transfer, compared to a control group. The study results show that the conditionality increases more the school attendance and enrollments, while the unconditional transfer impacts better on teenagers' issues, such as reducing teen fertility rate and overall child marriages.

Some governmental agencies link the poverty to inadequate access to nutrition, health and education or housing. Consequently, they have looked at the conditional of the cash transfer as indispensable element to reduce poverty. For instance, WFP adopted a CCT program in Sri Lanka, encouraging the use of the provided cash for consumption, rather than saving, aiming at reducing the limitation of food access. In fact, by receiving the transfer from the bank, people may prefer to keep the cash in the bank and saving it, instead of spending the amount for basic nutritional needs, without reaching the organizational goal of reducing access to food.

With the condition, the targeted beneficiary receives the amount of cash only if the policy requirements (condition) are fulfilled. Policy requirements for the beneficiaries can be related to health and nutrition and education. Generally, the health and nutrition requirements ask for periodical health checks, vaccination for children, prenatal care for mothers; while education requirements demand for school attendance above a certain percentage of school days (usually within 80%), and very occasionally, school performances. The targeted beneficiaries of the policy are usually families considered poor, because living below the country poverty threshold.

Several debates on the benefits regarding the conditionality of the transfer are still ongoing. Some countries prefer to go for the unconditional policy, because of the lower psychological stress the free transfer provides to the family preferences, some others for the conditional. Conditional cash transfer is usually justified in a few situations. First, when governments suppose that their households do not invest or under invest in human capital of their children, comparing to what is considered the optimal social level of education. Parents can believe that realized returns today, from their children work, are higher than future returns from schooling, discounting the investments returns of their children education higher than they should do. Some other time, the parents are against their children, having any or

different² interest for their children human capital investment. The government positive belief implication to support cash transfer program includes also the impact of the external benefits that a cash transfer can provide among the households. If children are better educated today, the country can benefit from a more professional and qualified workers tomorrow. The second reason why a cash transfer should be conditioned is when a government wants to redistribute resources in its economy (political economy reason).

1.2 HOW CASH TRANSFER PROGRAMS WORK

All cash transfer programs have the same basic system requirements: a) identification of the beneficiaries; b) identification of the payment mechanisms for the beneficiaries (i.e. monthly vouchers, direct cash from ATM's or monthly checks), and c) a monitor and evaluation process to implement after the policy implementation to verify the effectiveness. The program works exactly as any social assistance program, forecasting the number of beneficiaries and people in need of help.

The *Targeting* process identifies the poor households willing to reinvest their benefits in human capital of their children. Usually the selection can target households living in poor conditions, with children enrolled in the primary and secondary school, orphan or vulnerable children; sometimes

²Mothers are usually keener to sustain the human capital development of their children. This why most of the cash transfer programs are managed through mothers instead of fathers.

the selection is based on gender inequality or ethnic minorities; some other times the targets are preferred households with children with high level of malnutrition. The target poverty level can change according to the country where the policy applies. In Latin countries, for instance the poor people have living conditions below the country poverty threshold. While in African countries, the policy targets ultra-poor people, who generally have dependents, such as minors or elderly 65, or people, in working age, but unable to work, because of a disease (Miller et al, 2008).

The *beneficiaries' selection* is the delicate moment in which the government identifies the final beneficiaries of the policy, and the method used for the identification is directly related to the development stage of the country in which the policy applies. The methods can be of two types: a proxy mean testing, or a community-based targeting. Usually a *proxy mean testing*³ is used when the country has a more developed level of organization and communication system. With an estimation of the population welfare, it is possible to identify the people in need of economic help. Each household receives a welfare score. Those households above the cut off are eligible for the program. The others, falling below, are excluded. The same proxy mean tests is also useful for other studies to develop

³ The proxy mean testing is a statistical analysis, based on a survey database, which measures household welfare through household's assets ownership and other welfare indicators. The proxy is usually easy to measure, and normally includes local demographic characteristics, human capital characteristics, physical housing, ownership of durable goods, and productive assets.

poverty maps and targeting other policies beneficiaries. Because the proxy system is a statistical calculation, there is high risk of statistical errors, which could lead to the exclusions of the real beneficiaries from the program. This is the case of Panama, where an ex ante evaluation test estimated a wrong poverty index and the real poor resulted out of the program. Usually Central governmental Agencies are in charge for this targeting work. The second method most commonly used to target beneficiaries is the *community-based selection*. The method is very easy and straightforward. The local community, usually the community leader, is in charge for the selection of the families, beneficiaries of the cash transfer. It is a very rudimental technique, however, is the major practice in African countries, where lack of social organization leads necessary to a basic and easy selection process. Of course, the risk of missing the right beneficiaries is even higher than the statistical approach. Another easier way of targeting is simply geographically. The government selects directly the poor per geographical area and implements the program. The choice of the targeting method reflects either the political will or effort of the government who aims to implement the program, but overall the real development conditions of the country.

The benefit of the policy is the tool through which the government aims to increase welfare to its poor community. Some CT program differentiate the benefit based on number of children per family, some others decide

which poverty level to target; usually the benefit is never fixed by cost of living; only few are fixed by gender, age and school grades. *Bolsa Familia* in Brazil, for instance, captures families with three kids, providing an amount of 45 USD; Mexico chooses poor families with at least two children, delivering 153 USD. In Dominican Republic, the maximum amount is 19 USD, which correspond to the expenses of four or more children. The benefits can be also defining to contrast gender diversity and discriminations. In Bangladesh, girls have priority in receiving the benefits, while in Jamaica, boys from secondary schools receive higher payments because male have lower school enrollment than girls.

Timing of *payment* can vary according to the country, most likely it depends on economic conditions of the country, on the agreement with the lending Organization, on the political situation of the country, and more importantly, on the incentive effects of the timing of payment in relation to the timing and the cost of program monitoring. Some countries prefer to dispense the payment monthly; other countries dispense every two months, to economize on transaction costs, for instance. Mothers usually receive the payment. They are recognized as the most trustable in families, concerning kids care and education. Payments can be made through bank transfers and it can be withdrawn through ATM's, if the country is furnished. In more rural areas, where banks are few or none, the payment can be done in cash through temporary pay points. Post office can also be

in charge for the disbursement, as in Kenya, or they can even deliver to community representatives, which then provide distribution of the payment. Cambodia makes payments in cash but only directly to the students during class ceremonies, as a way of encouragement for better outputs. A very innovative way of delivering the cash transfer payment today, is also using bit coins instead of normal cash, which allowed the cash dispenser to reduce drastically bank transfers costs. WFP is the pioneer agency in the field now.

The *condition* is the most important aspect of the program. It reflects the objective that the government aims to achieve. A condition can be sending kids to schools or bringing kids or pregnant mothers to periodical health checks. Service used is generally a mean to a specific purpose and every government establishes what suits better for its country need. Therefore, the desired outcome must be the first target criteria. Selecting the right condition is the first step to set up a good program. Regarding school attendance condition, in order to receive the benefit, usually a child needs to attend at least 80% to 85% of schools' presence. Turkey allows the students to repeat only once the grade to keep their benefits, while Nicaragua requires full promotion at the end of the school year.

Monitoring and Evaluation. M&E is also an important part of the program set. Monitoring the program means to establish the frequency of controls, to check if the program works in a proper manner. For instance, if a family

does not comply with the program condition, as first receives a sanction, and if the non-compliance continues, then the family is excluded from the program, living room to other eligible families. Usually NGOs or communities' organizations provide inspections and audits to the programs, which are also useful to check the progress and reliability of the policy intention. During Progesa, for instance, a monitor work highlighted how anemia was not disappearing even within the program 's beneficiaries, because iron in the food availability was low, and kids were receiving even less food than other family members. An evaluation process allows to understand whether the policy actually worked. By evaluating the program, it is possible to understand if children attend schools or drop it; or if mothers take regular health controls or not. The estimation work is quite complex, because it requires a structure procedure and economists work. Overall the estimation takes time, and while in the short run, it measures if the condition is applied or not, in the long run, the effects allow to see the real social impact of the policy, such as increased educational level for a generation of people, or increased level of nutrition and consumption, etc. A policy evaluation can be executed through a real experiment or with a simulation of experiment. In both cases the evaluation process identifies two groups of people, respectively treated (treated group) and not treated (control group).

The first group receives the treatment while the second does not. The comparison of both groups' causal effects determines the policy results. Policy identification revolves around two alternative methods: the experimental approach and the quasi-experimental approach. The major difference between those methods is in the use of a randomization process. An experimental design or randomized controlled trial, selects the groups of people to compare through randomization, giving to all population the same chance to participate to the evaluation program. A quasi-experimental approach uses econometric methods to randomize treatment across the population. The final interest of the evaluation is to estimate the casual effect of the policy, as the outcome of the comparison between treated and non-treated groups. Credible causal conclusions come from a correct randomization, obtained either directly or through econometric methods (see on this Imbens and Wooldridge, 2009).

Another important criterion is *how to fix the right amount of cash* to deliver to the beneficiaries. First, government should quantify the income-elasticity of the outcome. Secondly, a larger transfer can result in bigger behavioral change by recipient household. Usually the appropriate transfer depends on the weight given to the program's goals, therefore varying according to settings. According to practice, the transfer is calculated as a proportion of the pre-transfer per capita expenditure (or consumption) of those poor, whose per capita expenditure is less than 25 percentiles of

national distribution of pre-transfer per capita expenditure. In programs, such as *Progresa* for instance, economists have helped the local governments in setting the right scale and amounts, by using structural modeling and experimentations based on small scale (Todd and Wolpin 2006)⁴.

1.3 THE IMPACT OF CASH TRANSFER PROGRAMS: A SURVEY

The large practical use of the cash-based policy program has given reasons for several policy evaluations processes. Most of the literature debates about its impacts, and the policy positive results gave room for program expansion. First important positive impacts come from the Mexico experience. Being the pioneer country in implementing the policy, studies for the nineties demonstrated increased percentage of school attendance, for children attending primary and secondary school. Moreover, from another Latin American country, Colombia, Attanasio et al. (2010) demonstrated how *Familias en Action* increased secondary school enrollment for children aged 8 to 14 years old. Children domestic work also decreased. However, not all the time the formal condition positively impacts on school participation and learning, while the condition can improve a lot the school attendance in rural areas. Benhassine et al. (2013) show that formal condition on attendance tend to decrease the overall impact on school

⁴ Mexico targeted more than 45 percent of the benefits to the poorest deciles of the national per capita expenditure distribution; Chile and Jamaica 40 percent of benefit to the poorest deciles.

participation and learning, while it does not change the impact if the condition is simply labeled. Finally, a cash transfer mechanism can reduce child labor. Impressive results have been reported by a study provided by Andre et al. (2017) in a poor African country, Tanzania. The study provides the effects of cash transfer on children time allocation, and it discovers that boys are more productive than girls, especially being busy in agricultural work, spending more than five working hours per week in fieldwork. Moreover, the study identifies a children shadow wage, which could be the corresponding amount of cash transfer provided to the families, to incentive to send children to school. The different impact evaluations, provided to estimate the efficiency and effectiveness of the policy, have reported several impacts on different socio-economic aspects of a society.

Impact on Education

The first important impact of CT is on education. Schultz (2004) and Todd and Wolpin (2006) with their pioneer policy evaluations studies on Progresa, in Mexico, demonstrated positive effects on increasing school enrollments as well as improvements in school quality. By increasing the level of enrollments, kids are also motivated to improve their learning, reducing grade repetitions and increasing completed grades of schooling. During the first 28 months of *Progresa* program in Mexico, Schultz (2004) demonstrated how the transition from primary to secondary school increased for boys (from 4% to 5%) and for girls (from 8% to 10%), with

a clear higher percentage for girls. In addition, Todd and Wolpin (2006) demonstrated how the program reduces the age of entry into primary school. The income effect generated by the program encourages the parents to send earlier kids to school. However, there is no evidence yet from studies on school quality improvements, but there is evidence of increased probability of working for young women, participating to the program, and even a shift from agriculture to non-agriculture employment (Behrman et al. 2010⁵). Still in Latin America, Attanasio et al (2010) demonstrated the positive effects on school enrollment of Familias en Accion in Colombia. By selecting 122 municipalities, 57 of which as treated and 65 being control, the study discovered an increased school enrolment rates, for children aged 14–17-year old, by 5 and 7 percentage points, and for younger children, aged 8–13-year-old, an increase of school attendance by 1 and 3 percentage points⁶. Positive effects of the CCT policy on education come also from studies, conducted in other countries, with different economies and cultural traditions. Benhassine et al (2013) provided similar positive results from a North African country, Morocco. With a randomized pilot project, taking 320 rural primary schools, out of which, 260 as treatment group, 60 as control, the study

⁵ By conditioning the program to school attendance, the policy incentivizes the time spent in school, and reshapes the working time, however with ambiguous effect on leisure time. Even if the working time decreases for kids enrolled in the program, leisure time remains higher for boys than for girls. Unfortunately, girls remain involved in house working while during leisure time.

⁶ In the study, domestic work decreased by around 10–13 percentage points. However, those, participating in income-generating work, remained largely unaffected.

demonstrated that by making the transfer explicitly conditional on regular school attendance, the effects on school enrollment were extremely positive, particularly in rural areas. Moreover, they discovered that targeting the program to mothers or fathers makes no difference⁷. Finally, positive impacts on education come also from a CT program, being unconditional and implemented in extreme poor country, such as Malawi. After 10 years from the program (SCTP) implementation in the country, a joint study program conducted by the university of Carolina and Unicef research center, demonstrated how school enrolment rates has become very positive, especially for children aged between 6 and 17 years old, among bigger and poorer families, and how also enrolment in the secondary school has increased.

Impact on Health

Studies conducted on the health impacts of a CT program demonstrated significant effects either among young children or among adolescent and adults. Barber and Gertler (2009) for instance, evaluated the impact of Progresa on the health of young women about to deliver, beneficiaries of the policy, located in rural areas. They found out that beneficiaries received 12.2% more prenatal care procedures compared with non-beneficiaries. Barham and Rowberry (2013) examined the impact of

⁷ In fact, the program in Morocco provides cash to the father instead of mother.

Progesa on the rate of mortality of people aged from 65 and older, majorly due to diabetes issues. The extension of the program benefits can reach also other family's members. The study demonstrated how from the beginning of the program (1997) until 2000, there was a reduction in death, specifically from diabetes, on average of 4%, demonstrating that beneficiaries of the program have less probability of being obese or being overweight. Moreover, the increased use of health services leads to a reduction in depression disease, especially among women, and a reduction in infections due to a reduction in diabetic related death.

Impact on Poverty

CT impact on poverty has effects both in the short run and in the long run. Immediate change in consumption brings poverty alleviation in the short run, especially between the poorest, while in the long run, CT touches people consumption behaviors, changing their poverty level. It is commonly recognized that better qualified education brings to higher quality of job and therefore to higher remuneration. By becoming richer, the household gets used to spend more, increases its consumption. People participating to *Progesa* revealed those effects in Mexico. The straightforward economic consequences are that as food consumption increases, aggregate food consumption also increases. The new consumption includes ordinary food as well as products of higher value,

as per Engel's Law⁸. Studies have proved that quality of food also increases, especially items rich in protein, such as milk meat and eggs. Households learn how to diversify their diet and increase quality of calories. Attanasio and Angelucci (2013), proof that the quality of food change, did not appear in the households where the head had a higher bargaining power. The meaning of this conclusion is that the positive effects on food quality change are evident when the transfer is delivered to the women⁹ in the households, and not to the men. Interesting impacts are also noted on women empowerment. Because the mother or female heads of the household are usually the first recipients of the transfer, the effects on gender and demography are straightforward. Domestic violence against women reduces drastically and money are properly spent for their real objective. Especially in poor rural area, women living conditions have improved comparing to the pre-program. Young adolescent women prefer to continue studying instead of working, delaying instead marriage and childbearing, and the time for pre-marital sex is delayed (Gulemetova and Swan, 2009). On another side, a CT program can also lead to increase the number of separation and divorces (Bobonis, 2011). By receiving directly, the transfer and being in charge

⁸ Engel's Law suggests that the income elasticity for food demand is between 0 and 1, meaning that as income rises, the proportion of income spent on food falls, even if absolute expenditure on food rises.

⁹ Identified as the person in household with a lower bargaining power, having usually lower income.

of its management, the mother is consecrated to be the head of the family.

The transfer responsibility determinates the base for a women empowerment process.

Impact on Consumption

The eligibility condition, in order to become a beneficiary of a cash transfer program, requires the household to be poor, ultra-poor, or being unable to satisfy the basic food needs¹⁰. By receiving the subsidy, the household succeeds in increasing its consumption, and, as previously discussed, when disbursed to the right person, the transfer can even improve quality of food and diversifying the family diet. However, the cash provided to the family is majorly spent on consumption. Very hardly the receiving family is able to save the amount received, with the risk to keep the family in a *saving trap*¹¹. This assumption generates a huge debate on the utility of the cash transfer as a tool useful to generate economic growth or simply a transfer to alleviate temporarily poverty, keeping the households in a poverty trap. In reality the effect of the cash transfer is yes, to alleviate poverty in the short run, but the long run intent is to increase education level, which implies better future jobs and overall a gradual changing in consumption behavior of the households. This escalation of positive effects would lead the

¹⁰ The eligibility choice depends by which quintile of income distribution the government chooses to select to fix the poverty threshold.

¹¹ The saving trap refers to the poverty trap that occurs when poor people are able to save only after having met the basic needs.

beneficiary family to escape from the poverty trap and give the chance to pursue also an economic growth. It is also true that this conclusion suits better countries, such as Latin countries, where poverty level is moderate, comparing to the African countries where growth is not negative, but trapped in asset of circumstances in which growth is always negative (Sachs et al, 2004).

The impact of CT does not rely only on aggregate consumption but also on the consumption of given items. Attanasio and Angelucci (2013), in a study conducted on *Oportunidades* have proved how CT can move the Engel curve when decreasing food sharing and increasing food expenditure. In addition, women, who usually receive and manage the money, are keen to buy different kind of products. Therefore, the straightforward consequences are that as food consumption increases, aggregate food consumption also increases. The new consumption includes ordinary food as well as products of higher quality, as per Engel's Law. Finally, of particular interest is the impact of the CT on the consumption of non-eligible households benefit from the social policy. By living in the same villages, the households can share higher income, by receiving new transfers, by borrowing money and reducing their savings. In this regard, the policy impact has a larger economy effect.

Impact on Child Labor

One of the major effects of a CT program is the strong reduction of child labor. The first reason is due to the conditionality of the program, which increases school attendance, depriving children from participating in income generating activities. The second reason impacts on the children 's parents, who are less willing to send their kids to work for higher family incomes. *Oportunidades* in Mexico gave proof of higher school attendance for boys and lower domestic work for girls (Skoufias and Parker, 2001). However, the program sometimes chooses only one child in a family. In this case the selected child's siblings can perhaps end up working more to compensate his/her sibling missing income (Schady and Araujo, 2006). A study conducted by Barrera-Osorio et al. (2008), on the CCT program in Colombia, raised that point first. The selected students received directly the transfers, instead of receiving the amount through the parents. The results were that the student sibling was working one hour more than the beneficiary sibling was. There are not particular effects on the behavior of the adults' work. The beneficiaries' parents receive the benefits because of their poor condition and lower level of income; however, they could be interested in remaining in the same income situation, to avoid losing the monthly benefit. In addition, it is possible that the parents should take some time off from work to bring their children to the periodical health check, making excuses for not working.

The effects of the CT policy on child labor is coming to attention from more poor countries, where the transfer policy is in place also to try to reduce the child labor issue. Very recently, Andre et al (2017) provided an estimate of the opportunity cost of children, and the effect of conditional cash transfers on children's time allocation in Tanzania. With a total sample of 4996 households of which: 1703 surveyed in 2008, and 1711 in 2010, they have found that: boys are generally more productive than girls; boys spend more than 5 hours per week on agricultural tasks, while girls only spend less than 4 hours; older children are more productive than younger ones (15 years old children are 63% more productive than 11 years old), and finally that a shadow wage (unpaid work) for those children exists. To conclude the study says that children enrolled into school because of the policy, work 26 days less per month than others not beneficiaries. If the cash transfer exactly compensates the wage the children would earn if working, with a monthly salary of 3.1 to 5.3 USD, the policy transfer would hit the child labor issue.

Impact on Fertility and Family Composition

The details of the social assistance program design are very crucial for the good development of the program itself and may have impacts on fertility and family composition of the selected population. For instance (Stecklov et al. 2006), in Nicaragua new families receive the benefit, if they give birth to children and the cash amount is function of the number of kids in

the family. This is a direct incentive to increase fertility and family composition. The same study demonstrated how in Mexico a lump sum payment (regardless of the number of children) did not have any effects on fertility.

2. IN- KIND TRANSFER PROGRAMS

An in-kind transfer is a direct provision to targeted beneficiaries of a tangible asset¹², or a provision of good or service valued in monetary terms, according to the rules agreed upon by the members of the organization or government, which have implemented it. The in-kind contribution includes goods, use of services and facilities, such as public housing, professional services or expertise in the form of staff time, provision or access to equipment, or special materials. One rationale behind the in-kind program is that the government or the organization in charge for the implementation can easily induce consumption of the right goods, such as healthy food or public housing (instead of tents). Despite the cash transfer, the in-kind contribution makes the beneficiaries less independent regarding their choice, while cash provides more freedom to the beneficiaries in spending option and results less expensive to be settled. The most common in-kind programs used are the school feeding programs and the children gathering programs. The first are commonly used in more developing countries,

¹² Generally, in kind transfers include a food basket of necessary goods.

providing directly food to the children in the places of education, as incentive to attend the classes. The second type of program provides a service to gather children, such as kindergarten or day care services, and it is frequent in more developed countries to answer to different social needs, such as taking care of children, when both parents work. Table 1 below provides a more detailed list of different possible transfer solutions, for easy reference

TABLE 1 DIFFERENT FORMS OF TRANSFER

<p><i>Unconditional cash transfers</i></p>	<p>are given without specific conditions, as cash transfers can be used indistinctly for beneficiary 's needs. People prefer to receive cash than other forms of assistance (food aid, public works, etc.). Cash gives the freedom to spend the amount on the goods people needs.</p>
<p><i>Conditional cash transfers</i></p>	<p>The cash is conditional to a specific need, such as rebuild houses, plant seeds, bring kids to school, doing health periodical health checks, etc.</p>
<p><i>Commodity vouchers</i></p>	<p>Identify the items (and their cash vouchers amount/weight) or services for which the recipient can exchange their voucher. The vouchers have a specific value and can define a service or item or a range of items for the amount of the voucher value. Alternatively, the voucher can allow the recipient the freedom of choice, concerning what to purchase with the voucher.</p>

<i>Combined vouchers</i>	(Cash and commodity values) also exist. Pre-selected shops can exchange the vouchers, with specified traders/service providers or at specifically organized fairs
<i>Cash for work</i>	are payments for work for community or public works programs. The aim is to improve or rehabilitate community services or infrastructure. Wages delivered under the programs should cover basic needs but be slightly below market levels to avoid competition with the labor market.
<i>Social assistance transfer</i>	is a form of cash transfer provided to longer-term vulnerable or destitute households or specific individuals (i.e. the elderly, pregnant women), government agencies define the type of transfer according to the specific need.

2.1 IN-KIND TRANSFER PROGRAMS AND THEIR EFFECTS

The type of child-care services can be diverse, according to the level of the country development in which the policy applies. In more developed countries child-care services go from a kindergartens service, to free school meals for primary education classes, and the services can be either provided by the government or by privates, funded by governments. In less developed countries, due to reduced amount of resources, childcare service is limited to the school feeding program, free health controls during the early childhood or during mothers' pregnancy, or government subsidies to support students attending higher school levels. School feeding remains the

most used and most popular, due also to the effectiveness and the most practical use of the policy. The program has large application in developing countries, where it is used as a powerful tool to increase school attendance. By providing free school meals, which can go from breakfast to lunch, to midday meals, children are more willing to go to school and more active during lessons, receiving also more calories and therefore energy to study. In the majority part of the developing world, lack of transport system obliges children to walk far distances to reach the school, and most of the time without having eaten a proper meal.

2.2 SCHOOL FEEDING PROGRAMS: A SURVEY

From Africa to Asia, several countries have adopted school feeding as a necessary tool to keep children continuing the second grades. In all the studies (see Appendix A), the impact of the policy is significant, increasing school enrollment and class attendance, reducing school dropping (Bangladesh, 2002), providing better achievements in grades results (Jamaica, 1973), improving daily calories and children weight (India, 2001), and reducing gender disparity by increasing girls enrollment (Burkina Faso, 2007).

With the beginning of studies on children health and development, attention has been addressed on the nutrition aspect, and overall on the effects of malnutrition on children education and growth. Since then, school-based health and nutrition programs have spread very rapidly in developing

countries as cost effectiveness and as low-cost solution, to answer to the children malnourished issue. Particularly, after the World Education Forum (Dakar 2000), which launched the global effort to achieve the goal of *Education for all (EFA)*, school health and nutrition programs have expanded across the developing world. Since then, many countries adopted the policies. Africa feeding programs instead descend from colonial antecedents of school meal programs, set up to serve the minority of foreigner children attending schools in urban areas or elite boarding facilities.

According to Bundy (2005), two issues remained unresolved concerning the development and implementation of a food-based program. One is the role of food as real incentive to participate in education; the second is the appropriate target age to which address the policy. The first issue relates to the uncertainty for children to receive more food, once back home, after the school portion; moreover, the family could sell the take home ration instead. The second issue affects the right children age to target with the policy. Bundy maintains that the right age to be targeted is within the first three years of children age, when the development of skills is higher and deserves more nutrition support.

According to the literature, the use of nutrition programs in developing countries has a weak commitment, due to several reasons. The World Bank (2006) maintains that the governments of developing countries invest in

nutrition programs because of the financial aid they receive from external partners. Also, largely debated is the timing of intervention on children. Usually the program applies on children from standard 5 to 8, which correspond to age 10 to 13 years old, exactly opposite to what Bundy (2005) maintains. Del Rosso (1999) showed that children in poor health conditions start school later in life than children with better nutrition. Moreover, most of the developing countries have not the financial position to sustain a nutrition program spending on average 34 USD, for roughly 180 school days per year per children. Despite the criticisms, the school feeding program has a positive impact on girls' enrolment. However, to get positive results, the program must target very poor areas, where the school enrolment and attendance are low, and where the value of food is perceived as enough to attract children to school (World Bank 2006)

TABLE 2 SCHOOL FEEDING PROGRAMS ACROSS THE WORLD IN 2005

<i>Country</i>	<i>Schools</i>	<i>Students</i>	<i>Annual Cost per child in USD</i>	<i>Implemented by</i>
Ghana	577	83,000	0.54	Government
Guinea	600	350,000	-	Government
Indonesia	627	161,000	0.1	NGO (Yasan Kusuma Buana)
Madagascar	4,585	430,000	0.78	Government
Malawi	679	642,109	22	WFP and Gov
Tajikistan	200	100,000	1	Government
Tanzania	353	113,000	0.89	Government

Source: Bundy (2005).

3. CASH OR IN-KIND TRANSFER PROGRAMS?

Since the pioneer project in Mexico in 1997, almost all Latin American countries have already experienced the cash program in practice, or it is in the plan of the country development policy strategy. In the last decades cash transfer programs had large application across African and Asian countries as well. Despite the Latin American experiences, in Africa the program copes more with the problem of orphan and vulnerable children, such as children affected by HIV, (Kenya, Malawi and Tanzania), while in Asian countries the policy target, most commonly, remains the gender gap issue. In Bangladesh for instance, the cash transfer is addressed to increase girls' education. Whether a cash or in-kind transfer could provide better results, while used during an anti-poverty policy, is a matter that cannot be easily settled. There are *pro* and *contra* in the use of the two different form of subsidy.

Many papers indicate that CT programs have improved life of poor people. If transfers are correctly distributed, they increase beneficiaries' consumption level, and reduce poverty, providing a direct income to the poor. However, CT cannot be the only social protection program used. The best option, according to researchers, is to bundle CT with other social programs, such as social pensions and employment programs, in order to cover the different beneficiaries' needs.

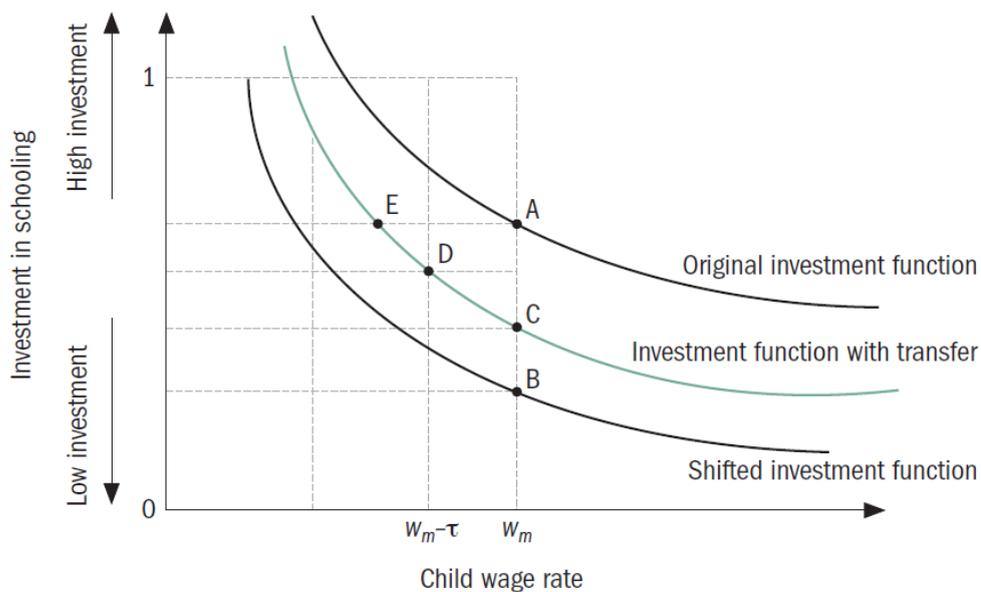
Criticisms about cash subsidies. As mentioned above, the program is designed to provide benefits to the beneficiaries in terms of health and education services. However, when choosing to implement such program, a government must decide between investing in a subsidy program, providing direct cash to the beneficiaries, or using the same dedicated funds to finance other projects useful for the country economic growth, such as investing in new schools' infrastructures, or roads to get to schools. First, a cash transfer subsidy mechanism can exclude the real target beneficiaries from the program benefit. If a family lives far away from the school, for instance, it becomes useless to provide a cash transfer to the family, with the intent to send children to school. The school can have bad education program or infrastructures, or the clinic, where the health checks are supposed to be done, has outdated services. In some other cases the beneficiaries would accept the transfer only for the sake of extra cash in the pocket. Perhaps it can result much more useful for children to learn how to farm, in this case. Another argument against the subsidy is that the cash can generate a wrong incentive to work to the beneficiary family, reducing labor supply. Generally, a direct public investment in infrastructure can be considered a valid alternative to the program. Despite this assumption, in several countries, where direct investments in infrastructures and public services have been performed, investment programs did not reach very poor people. In Nicaragua, a public investment in electricity distribution in 1998, did not

reach the final beneficiaries, because only 10% of the population had access to the electricity in the country (de Ferranti et al, 2004, 209, fig 7.9). In general, the real reasons to go for a subsidy option, is: a) when a public investment of funds is not able to reach the very poor targeted people; b) when family incomes is very much affected by fluctuations, impacting severely on schooling or family health; c) when, in presence of inequality of opportunities, people suffer from discriminations due to gender, race or family backgrounds reputation.

Theory in support of conditional transfers. There are three major reasons to apply a condition to a cash transfer subsidy and therefore to justify the use of a CCT. First, people behave in different manners. Parents can act against their children interests or have a different opinion from their partner, making parental decisions not completely rational comparing to what their children would have chosen for themselves. This is the case of “incomplete altruism” and distorted information, that together with myopia about the future of the children and disinformation, can lead to lower or discouraging any investment in children human capital. The economic theory that justifies a government paternalist approach is that poor people do not act in a proper manner, good for its own interest, but need the support of the government to decide what is good for them. The *merit goods idea* of Musgrave (1959) maintains that a society obtains its utility only from the education of each people, from the decent living of each member as well as

from each person health care. In general, the weight of the social plan is higher than individual plan, especially on the consumption of certain goods. Same as per *merit goods* idea, a conditional cash transfer program places a value on children schooling higher than it should be if provided by individual level. At the same time, a simple dynamic model of educational choice can explain private decision failures. Children can contribute to the family income by working during childhood, but at the expenses of studying time today, or children can invest in human capital during childhood, at the expense of earnings and consumption when adult. Thus, the tradeoff between present and future welfare can explain the education decision model. The higher the opportunity cost of schooling, the lower would be the intent to invest in education.

FIGURE 1 INVESTMENT CHOICE IN CHILDREN EDUCATION AND CHILDREN WORK



Source: Fiszbein et al. (2009).

In Figure 1 above, Fiszbein et al. (2009) illustrate graphically the tradeoff between the investment decision for children, between education and work. High child wage today leads to lower the investment in education for children today, also with low earnings when adults. Low child wage today implies higher investment in education today, with higher earnings in the future when children become adults. The original investment function represents the households demand for schooling, given a child wage rate w_m and a set of additional parameters, such as expected returns to schooling, discount rate, quality of the education and other income available to the families. When the function is drawn against the wage rate, it slopes downwards. In fact, the higher the opportunity costs of schooling, the lower is the desire to invest in education. Any change of the additional parameters (quality of education, other family income available etc.) pushes the function up or down (shifted investment function).

Another economic theory in support of the use of a conditional subsidy is the Heckman (2008) theory of investing on early childhood, whose main evidence however relates to The Perry Preschool Program was an early childhood education program conducted at the Perry Elementary School in Ypsilanti, Michigan, during the early 1960s.

A further reason behind the conditionality of a cash transfer program is the political economy behavior of a government. A condition, imposed to a subsidy implementation, can influence the political election of a country

and thus its government leadership. Voters are generally interested in their welfare and look at the government redistribution of the resources and taxes. A third reason is the social efficiency argument. An investment in human capital for the poorest does not imply necessarily its efficiency once in practice. The policy intent can be good, but not social optimal, because the markets can fail. For instance, a policy program can generate better-qualified workers, however the market could not be able to absorb those workers, because of job scarcity.

Comparing cash and in-kind transfers. An interesting aspect, that deserves to be treated, while implementing the policy, is the effect of cash and in-kind transfer on the prices of local market. Either cash or in-kind immediate provide a *positive income effect* to the beneficiaries. In both cases they have availability of more income, due to the cash in the first case, and to the availability of normal goods, in the second case, which allow them to spend their income for different uses. However, the in-kind increases also the local supply, by the amount of the new supply of goods provided to the economy through the program. Thus, in case of cash, local price increases, due to the higher demand for goods. In the in-kind case, local prices first increase, because of the higher demand for goods, but secondly decrease, because the new government supply increases, lowering the local prices. Certainly, cash impacts more badly to consumers, due to the price increase of normal goods, while producers suffer more from the in-kind contribution, due to the

higher market supply. On another hand, the in-kind, by lowering also the prices, encourages more consumption for normal goods¹³. How the change in prices can affect the market of normal goods depends on the degree of the market competition. A study conducted by Cunha et al. (2011) on the price impact of PAL¹⁴ in Mexico, denotes exactly that prices of necessary goods are higher in the market where the cash transfer applies, while prices are lower in in-kind villages, where the supply effect occurs. The study compares simultaneously two counterfactual groups (cash villages and in-kind villages), with a control group, with pre and post policy data, and explains why in more remote village, the price effects of the transfer are bigger. A closed economy has a less competitive local market and a steeper supply curve. Because local supply also determines prices, the prices would adjust quicker to the market shocks. Evidence from other studies, (Alderman and Yemtsov, 2013; Levy and MacLennan, 2015) indicates that in small economies, with market imperfections and weak market integration between rural and urban areas, a transfer mechanism, particularly cash, can reduce the efficiency of the policy and calls for complementary measures to give benefit to both, beneficiaries and domestic economies. The results of those studies are that, when the transfer policy is implemented alone, there

¹³ Certainly, those effects are valid in case of a closed economy or imperfect competitive market. Usually in development policy issues, rural villages are considered closed economies, due their distances to more urban areas, where markets are more competitive.

¹⁴ Programa de Apoyo Alimentario (PAL) is an in-kind Mexican program, adopted in 2004 and targeting very poor people from rural villages, located in remote areas of Mexico. The transfer consists of a basket of basic items and two/four supplementary items.

is no real increase in the GDP of the country, even if the aid comes from aid donors. As previously also mentioned, particularly for cash transfer, its rapid injection provides market distortions, due to the higher households' income and therefore demand for goods, which is not immediately satisfied by the supply. The supply reacts, but not quick enough to fill the new demand. Therefore, production would increase, but through the trade and not through local production, generating an increase in import of goods. Particularly for the agricultural sector, the demand for new goods cannot be immediately satisfied, due to logical natural growing reasons. Finally, a transfer program, implemented alone, is insufficient to provide growth to the target market. To be efficient, the program needs to be combined with a productive investment, such as in agriculture, rural infrastructure, to play a real growth economy strategy. Public investments are a good complement to the social protection policy, only when domestic supply is stimulated, allowing it to respond to the increase in demand, without increasing prices. The combination of social protection policy and public investments can be a good engine for a local economic growth, especially in remote areas. Actually, because of the transfer combined with a public investment, the local market prices do not increase; local food production also increases, generating also a positive effect in the trade balance, because imports decrease, while exports increase rapidly. In conclusion, we can say that both transfer programs have different effect in the short and long run.

However, any transfer program, either in cash or in-kind, only bundled with a public investment, can generate economic growth. When used alone, the transfer program, either in cash or in-kind, is more suitable to alleviate temporarily poverty instead.

TABLE 3 GENERAL EFFECTS OF TRANSFER PROGRAMS: A SYNOPSIS

CT Long Run Impacts	CT Short Run Impacts	SFP Long Run Impacts	SFP Short run Impacts
Decreases child labor.	Increases consumption level.	Increases income To families.	Alleviates short-term hunger.
Increases the numbers of years of schooling.	Increase preventing and health service.	Becomes increasingly cost-effective.	Improves nutrition and cognition of children.
Increase the use of educational and health services.	Increase school enrollment and growth monitoring.	Efficient tool to quickly achieve intended outcomes.	
Reducing gender gap (such as in Bangladesh, Pakistan and Turkey).			

4. CONCLUDING REMARKS

Despite the massive application of the cash-based transfer program in the world, either cash or in-kind social programs have deep positive effects on poverty alleviation and both increase the level of education. Both types of programs increase human capital outcomes. While in-kind programs always had large application anywhere, in countries with different poverty

level, the cash-based transfer, starting in Latin American countries, is today commonly used also in countries where poverty is extreme, such as in Africa or Asia. Few negative effects of both policies exist. However, what remains the most important aspect is the intent to reduce intergenerational poverty transmission. If some important constraints are not correctly addressed to the households, as properly designed, the results of the Programs cannot be positive. In fact, inadequate information, poor parenting involvement, low quality of service, can lead to a program failure. Sometimes, the benefits do not seem to be worth the transaction costs implied. If beneficiaries live in remote areas, residents should face with high transportation costs and this cost can be even higher than the benefit itself. Moreover, considering the massive involvement of people, a CT program cannot be avulsed from *corruption risk*. According to Levy (2006), the intervention of local officials in selecting the program beneficiaries and the provision of benefits leads to increased political corruption¹⁵. *Environment* also matters. Because of the social development, allocations for intensive consumption of land increase, providing environmental pollution. Moreover, the increased household's income reflects a consumption increase of protein rich food, such as milk or beef. This human behavioral change leads to a deforestation of lands for pasture

¹⁵ Studies have proved that the early program enrollment has a link with higher voter turnout, and even with a higher incumbent vote share during 2000 presidential election in Mexico.

and increases environmental pollution. Finally, it is necessary to account also the *stigma effect* a policy implementation can provide, which make people ashamed to participate into the program.

We still do not know if the effects those policies (increasing in educational level, health and human capital) significant impact on the employment, income and poverty of the children object of the policies, when they will become adults. The impact analysis conducted until today still does not contemplate these results. Results will be evident only in the future, after the programs implementation, and no one of the existing cases are so old to conduct such estimations. Some economic aspects still need more research, as how transfer programs affect the general equilibrium of the local economy.

TABLE5 APPLICATION OF IN-KIND PROGRAMS AND THEIR IMPACT EVALUATIONS.

Country	Country Program Starts	N. Children	Target Children	N. of Schools covered	School Days per year	Daily Meal	kil- (kcal) per day	Evaluation Title and Authors	Evaluation method	Achievements
Bangladesh	2002	1.21 ml	Grade 1 to 5	6,126	240	mid-morning snack a packet of 8 biscuits	300 kil- (kcal)	IMPACT OF FEEDING CHILDREN IN SCHOOL: EVIDENCE FROM BANGLADESH Akhter U. Ahmed (2003)	Diff & Diff	raised school enrollment by 14.2% - increased school attendance by 1.3 days a month- reduced dropping out of school by 7.5%
Jamaica	1973	137,000 early childhood (in 2016)+202,000 (age 9-13)	Standard 7 (12-13 years)	836	-	breakfast and lunch. 100 mL milk (544 kJ) and either a slice of cake (1046 kJ) or a meat-filled pastry (2510 kJ)	(544 kJ)+(1046 kJ) +(2510 kJ)	School feeding in Jamaica: a review of its evaluation. Donald T Simeon (1998).	multiple regressions	higher school attendance and greater achievement in arithmetic
India	2001	120 ml by 2006	primary school	98% of Gov Schools	-	cooked midday meals	300 kcal	School Meals as a Safety Net: An Evaluation of the Midday Meal Scheme in India. Abhijeet Singh Albert Park Stefan Dercon (2012)	regression discontinuity design	increase school attendances, reduces daily protein deficiency of participants by 100 per cent and calorie deficiency by almost 30 per cent
Chile	1964	1/3 of primary school Students	primary school	Gov Schools	180	school meals	700/ 1000 kcal	The impact of Chile's school feeding program on education outcomes. Patrick J. McEwan (2013).	regression discontinuity design	There is insufficient evidence on whether they affect education outcomes
Burkina	2006/2007	-	primary school	National School	-	Lunch school meal for all students + THR of 10 kg of cereal flour, conditional on a 90 percent attendance for girls only	-	Educational and Health Impacts of Two School Feeding Schemes Evidence from a Randomized Trial in Rural Burkina Faso. Harouan Kazianga Damien de Walque, Harold Alderman (2009).	DID	both programs increased girls' enrollment by 5 to 6; mathematics scores improved slightly for girls. School Attendances increased; take-home rations have increased weight; school meals did not have any significant impact on the nutrition of younger children.
Malawi	1999 Pilot project 2008 scale up	in 2009 947,503 children	Standard 5 to 8 (Secondary school) school enrolment and attendances for girls and orphans, and to compensate the gender gap in favor of girls.	National School	80% of school attendances	Receive a mid-morning serving of porridge (Likuni Phala), in each school day. In addition, orphan girls and boys, in standards 5-8, receive take-home rations (THR) of maize in the months from January to April, by providing the 80% of school attendance	100 g of Likuni Phala per day per pupil, 12.5 kg of maize per month (take-home rations) to all girls and orphaned boys from grades 5-8, from January to April, with a cost of US\$22 per year per child.	1. WFP Evaluation report of Malawi School Feeding Program (2016). 2. Impact of Malawi School Feeding Program, J. Fellers, Boston University, 2015)	DID and PSM	1. Increased Health and dietary practice. 2. Higher enrollment rates and school attendances.

CHAPTER II: MALAWI AS A FIELD OF ANALYSIS

INTRODUCTION

The second chapter of the thesis addresses the attention on an African country, Malawi, which has been chosen for the research, because of its extensive social safety net programs application, despite its extreme poverty conditions. The country is the proof that Smith (2001) was right. Even in extremely poor situation, social policies programs, if well implemented, can provide relief to malnourishment and hunger, as well as increase educational attainment.

Malawi adopted several social safety nets programs after 2004, with the specific purpose to target the most vulnerable people in the country, and to eradicate extreme poverty. Those programs are specifically addressed to reduce food insecurity and to increase enrollment in primary and secondary schools. What is impressive in the Malawian experience is the scaling up at national level of several transfer policies, in a country that remains very poor. Among the different programs, the country adopted an extensive social cash transfer and school feeding programs, both with the will to increase school attendance of children attending the primary school.

The following chapter starts providing a general overview of the country, in terms of geographical and political characteristics. It explores Malawi structural socio-economic aspects, institutional details as a background for the policy evaluation exercise to be performed in the third chapter. The

chapter also describes the poverty situation in the country, the education system, and how family's decision model works. Finally, the chapter focuses on the country social safety nets policies, including the Social Cash Transfer Program, the School Feeding Program and another relatively important program, the Mary's Meals Program, describing in detail their set up and development over the years.

1. MALAWI COUNTRY PROFILE

This section is entirely dedicated to the country of Malawi. The description of its statistics, demographic and development indicators, such as education, labor, family composition and households' wellbeing, provides an overview of the country living condition and gives the idea of how much those policies are needed, and how much can be difficult to set up those policies programs in such a poor situation.

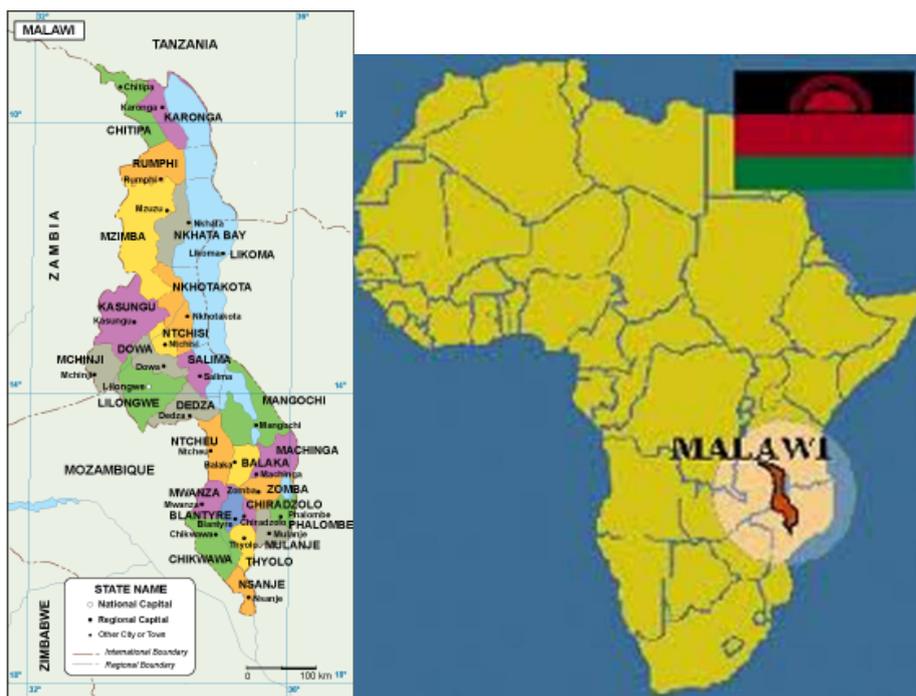
The data sources here used are the last Malawian national census (2008; provided by the Malawi National Statistical Office) and the Living Standard Measurement Studies, Integrated Household Surveys 2004-2016, provided by the Malawi National Statistical Office and the World Bank.

Geography

Malawi is a landlocked country, with a long stretch shape, located in the sub Saharan Africa region. The country extends its territory along the Great Rift Valley on the western shore of Lake Nyasa (Lake Malawi), covering an area of 118,484 km², and divided in 31 districts, among the Southern,

Central and Northern regions¹⁶, with the Central African Plateau located in the middle of the country. Because of its geographical shape and position, the country experiences different climate changes and big climate events, such as prolonged dry spells and floods, which are increasing, possibly because of climate change. Certainly, frequent weather shocks undermine the subsistence production and access to food, particularly in the south of the country. Another distinction is made between rural and urban areas. Both sectors have actually important differences.

FIGURE 2 MALAWI LAND DIVIDED IN DISTRICTS AND AREAS AND WHERE THE COUNTRY IS LOCATED IN AFRICA.



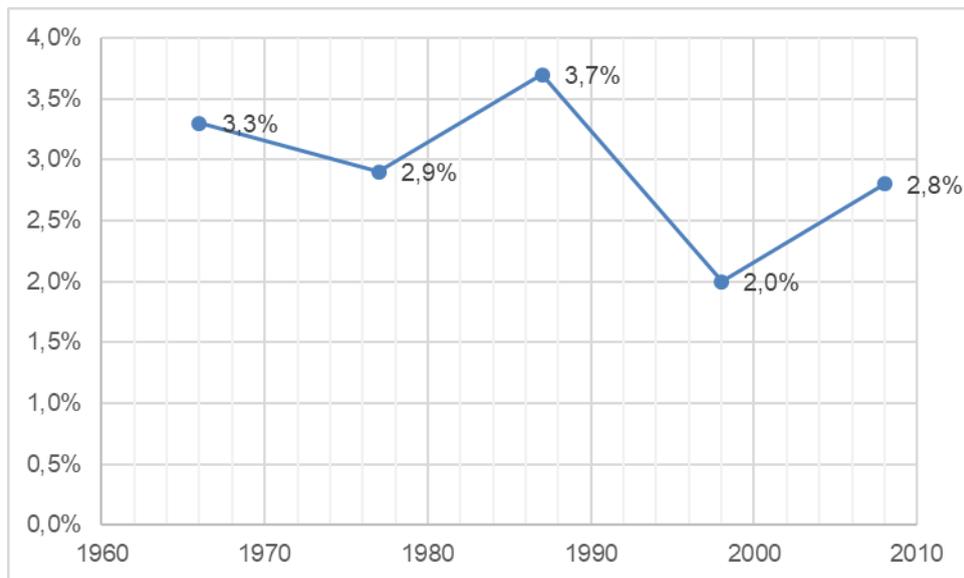
Source: web

Population

¹⁶Source : <http://www.nationsonline.org/oneworld/malawi.htm>

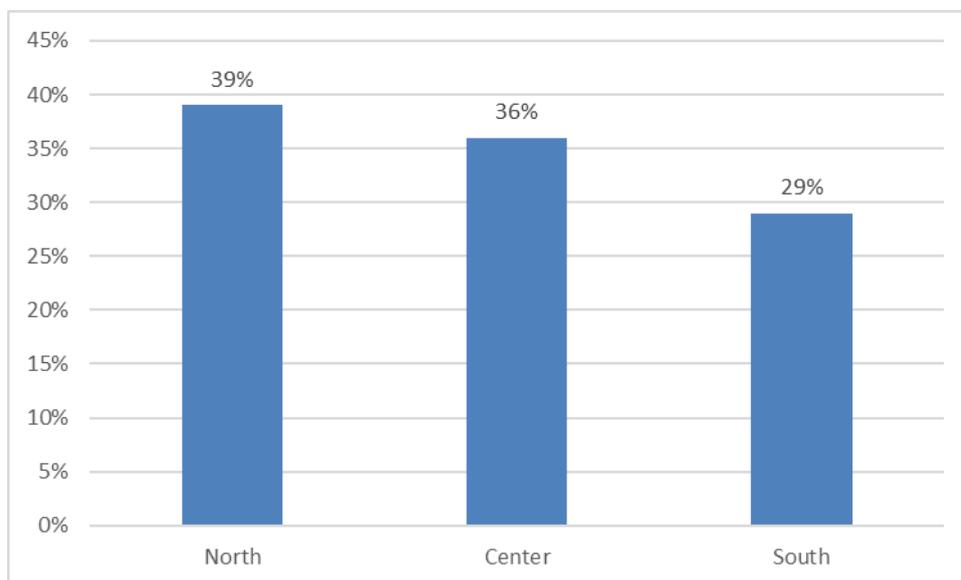
According to the national census 2008, population in Malawi has increased in 20 years on average by 2.9%. The population growth has increased differently according to the geographical area, with the North growing higher and faster (39%) than central (36%) and southern (29%) regions (Malawi National Statistic Office, 2008. Main report). Most people (84.7%) still live in rural areas. Most populated areas of the country remain the center and southern regions, due to the country geographical shape, which allows many of the economic activities. The biggest cities, Lilongwe, (the capital city) and Blantyre are located respectively in the central and southern regions of the country. Because of their economic development, the center and south areas stimulate people migration from rural to more urban areas. This phenomenon also explains the discrepancy between growth and density of population, which appears different across the regions, with more persons per square kilometer in the Southern Region (184 in Chiradzulu and Thyolo) than in Central (155, Likoma) and Northern regions (63, Rumphu and Mwanza).

FIGURE 3 MALAWI POPULATION GROWTH RATE (1966 – 2008).



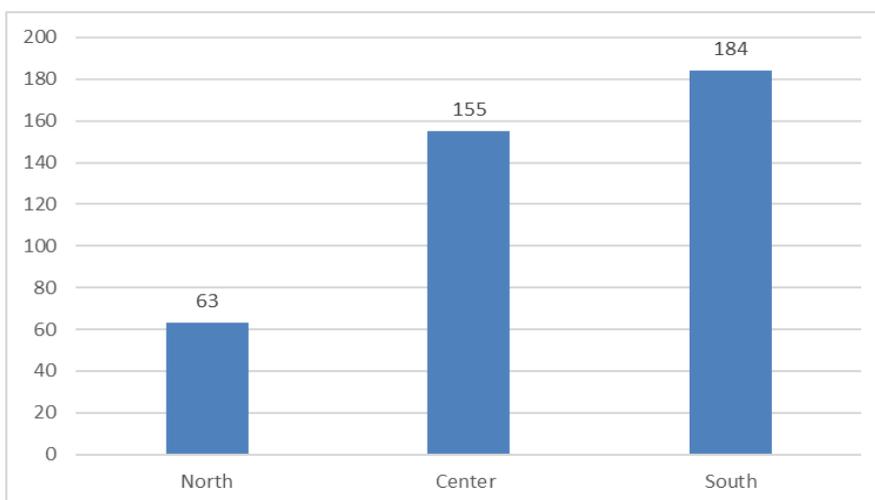
Source: Malawi National Statistical Office, census 2008.

FIGURE 4 AGGREGATE POPULATION GROWTH RATE - BY GEOGRAPHICAL REGIONS (1966-2008).



Source: Malawi National Statistical Office, census 2008.

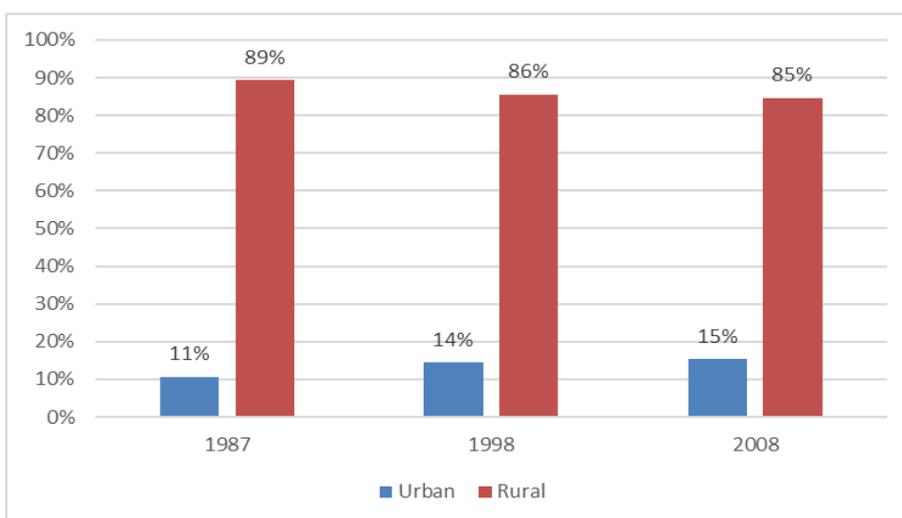
FIGURE 5 AVERAGE VALUE OF POPULATION DENSITY BY REGIONS (INHABITANTS PER SQ-KM) (2008).



Source: Malawi National Statistical Office, census 2008.

Population density, in general, increases every year, scoring an almost 100% increase in the last 26 years¹⁷.

FIGURE 6 PERCENTAGE DISTRIBUTION OF POPULATION BY URBAN AND RURAL AREAS (1987-2008).

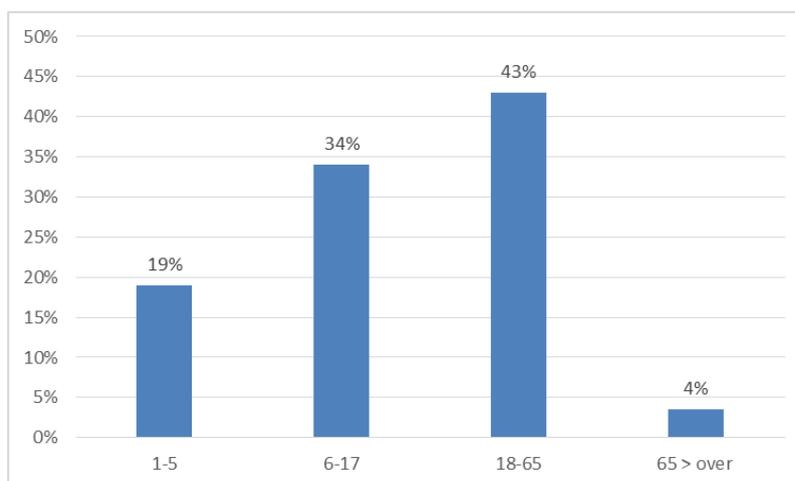


Source: Malawi National Statistical Office, census 2008.

¹⁷ Source: Malawi Growth and Development Strategy II 2011-2016

Malawi population is extremely young. Considering the last census (2008), the median age of the population is 17 years. Only 4% of the population are aged 65 years or older. Infants represent the 19% of the population, and 34% are between 6 and 17 years old. The remaining 43% includes working age population (18-65).

FIGURE 7 MALAWI POPULATION DISTRIBUTION BY AGE (2010).



Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016.

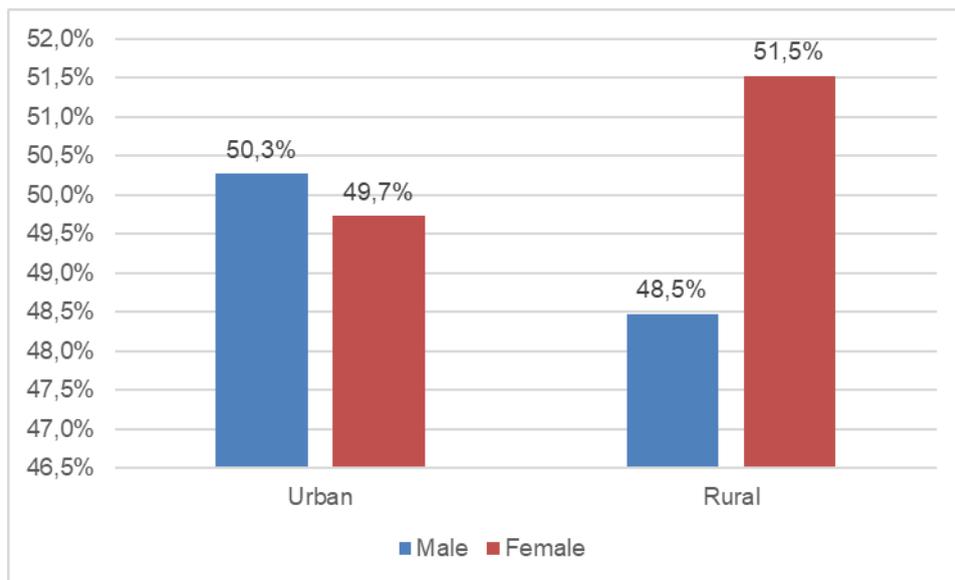
Malawi average household size in 2008 was 4.6 people per HH. Household size varies across the regions, and 42.9% of households still live in traditional dwelling units¹⁸.

According to the Integrated Households Panel Survey, most of the population living in the rural areas is female, while males are relatively more concentrated in urban areas. Male are more willing to move to urban

¹⁸ Traditional dwellings are those with both thatched roof and mud walls. They are called Yomata (made with daub & wattle). The semi-traditional dwellings are called Mdindo. They are made with rammed earth and have more rectangular form. Permanent dwellings are called Zidina and are made with sun-dried mud blocks.

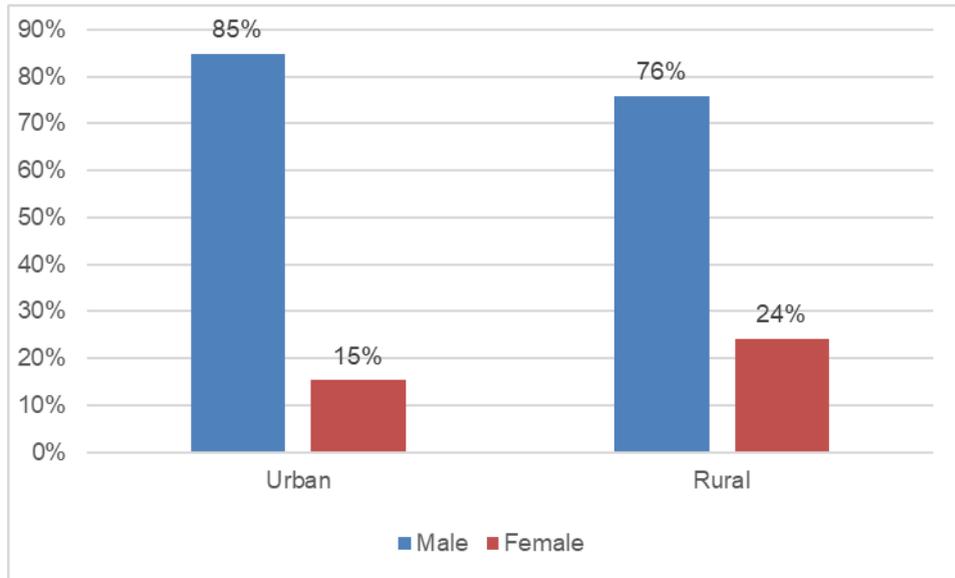
areas for work, while female persons remains in the countryside, gathering the family. This phenomenon also explains the higher percentage of female households' heads in rural areas (24%) comparing to the urban areas with 15%.

FIGURE 8 POPULATION DISTRIBUTION BY AREAS AND GENDER (2010)



Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016.

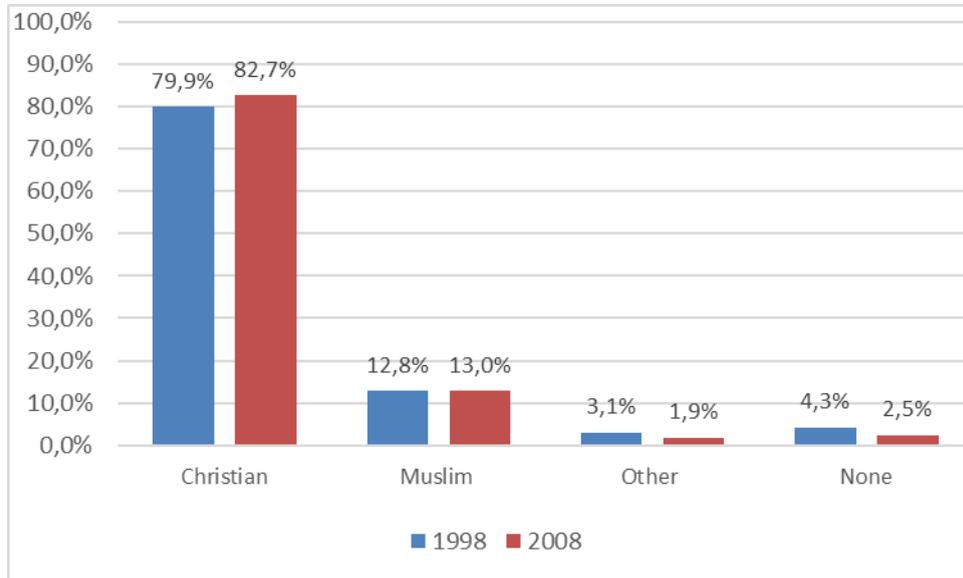
FIGURE 9 HOUSEHOLDS-HEADS BY GENDER AND AREAS (2010).



Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016.

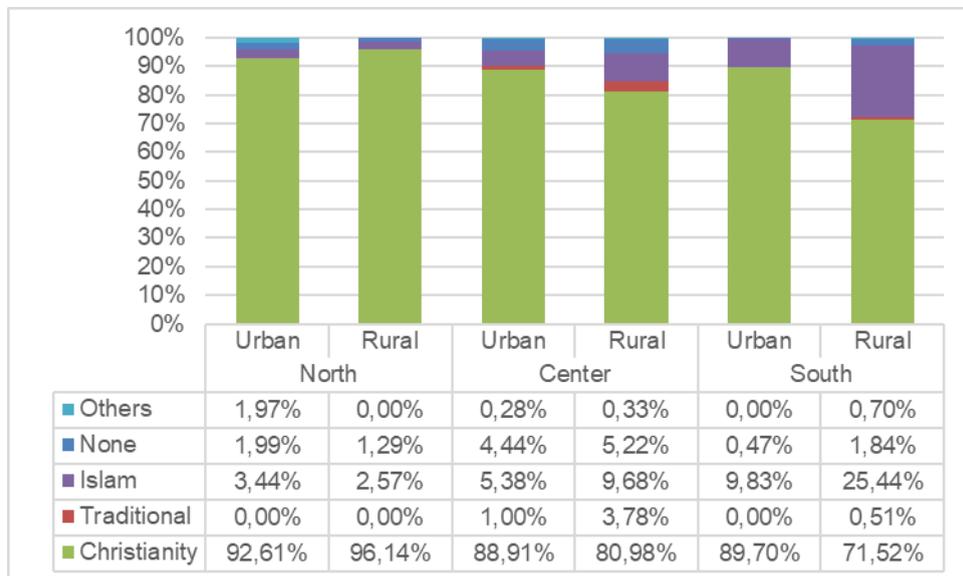
Christianity is the most common religion in the country; with 83% of population being Christian, and 13% being Muslim, in 2008. The concentration of Islamic population is higher in rural areas. Traditional animist is also present with a low percentage (2%) and majorly located in rural areas. The Malawian family behavioral model reflects the influence of the two biggest religions. However, this aspect will be treated further in more details.

FIGURE 10 POPULATION DISTRIBUTION BY RELIGION IN MALAWI (1998 AND 2008).



Source: Malawi National Statistical Office, census 2008.

FIGURE 11 POPULATION DISTRIBUTION BY RELIGIONS AND AREAS (2010).



Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016.

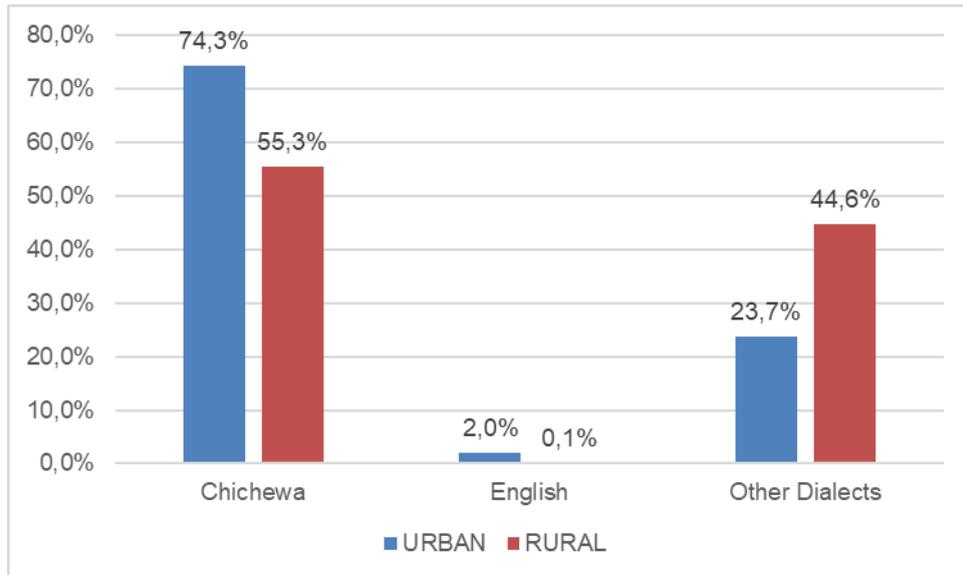
Language spoken and literacy

Chichewa and English are considered the two official languages in Malawi.

However, Chichewa is the most spoken language in households, either in

rural or urban areas, together with other traditional local dialects, which are almost only spoken in rural areas. The level of spoken English in households is still very low, either in urban or rural areas.

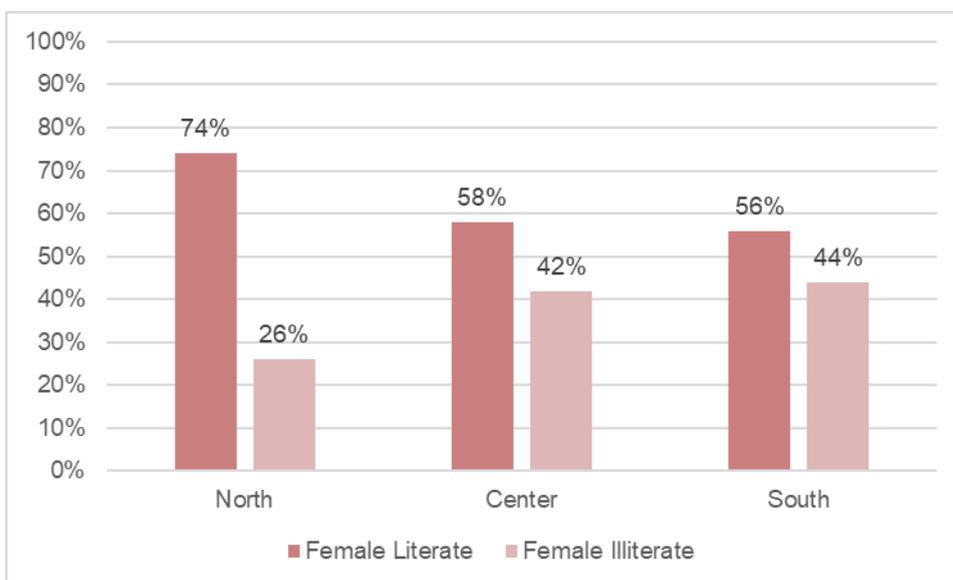
FIGURE 12 POPULATION DISTRIBUTION BY SPOKEN LANGUAGES AND AREA (2010).



Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016

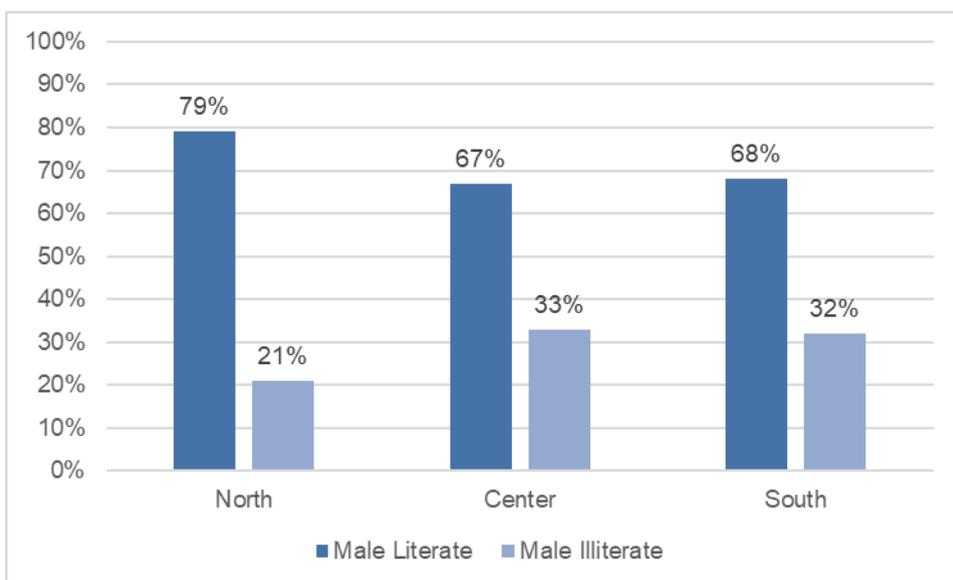
Literacy is the ability of reading and writing either in English or Chichewa. The level of population literacy is higher in the northern regions, either for females or males, while decreasing in the center and southern regions. Male are generally more literate than female. Families still prefer to continue to send sons to school instead of daughters, when they can. In fact, it is still a common behavior in households, to let the girls to get married as soon as possible. If not married, young girls are left gathering the house, while families work. In both cases they are forced to drop the school.

FIGURE 13 FEMALE POPULATION DISTRIBUTION BY LITERATE AND ILLITERATE ACROSS REGIONS (2008).



Source: Malawi National Statistical Office, census 2008.

FIGURE 14 MALE POPULATION DISTRIBUTION BY LITERATE AND ILLITERATE ACROSS REGIONS (2008).



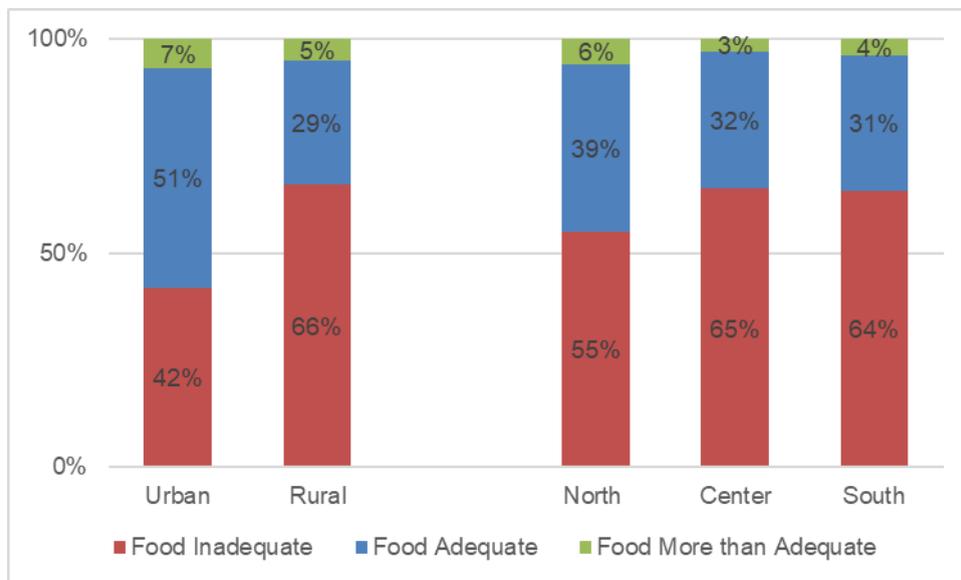
Source: Malawi National Statistical Office, census 2008.

Food Consumption

According to the last Malawi households survey (IHS4-2016), the country experiences a high level of food insecurity. Most people suffer from

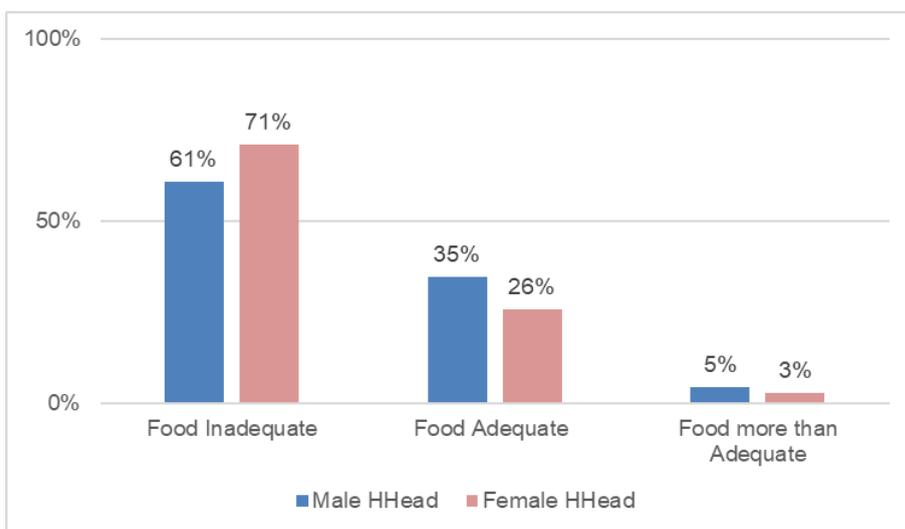
malnutrition and lack of food, with highest percentage in rural (66%) than urban (42%) areas. Female-headed households suffer more than compared to male-headed households (69% against 58%, respectively) and family income just meets the food expenses.

FIGURE 15 PROPORTION OF HOUSEHOLDS REPORTING INADEQUATE CONSUMPTION OF FOOD, BY AREAS AND REGIONS (2016).



Source: Own elaboration with data from Integrated Household Panel Survey, Report 2016.

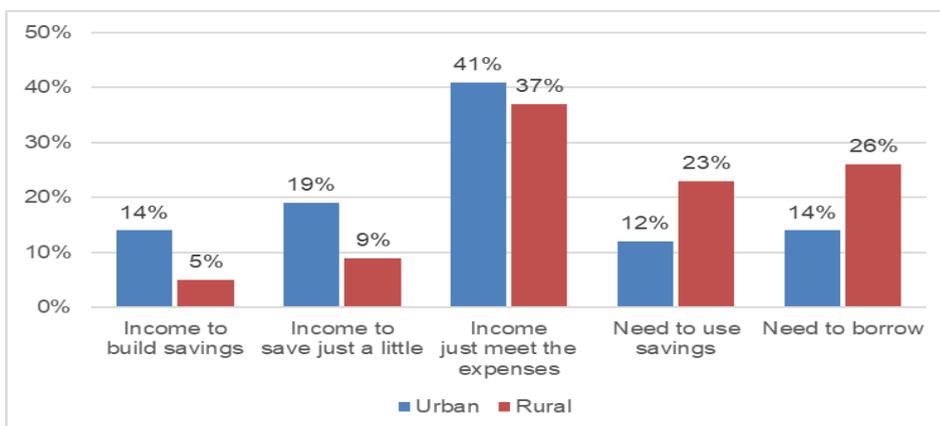
FIGURE 16 HOUSEHOLDS HEADS REPORTING INADEQUATE CONSUMPTION OF FOOD, BY GENDER (2016).



Source: Own elaboration with data from Integrated Household Panel Survey, Report 2016.

Households need to cope with malnutrition by using alternative methods. Some people must borrow money; some rely on cheaper food or cut down the size of meals. Reducing the numbers of meals per day is customary. Generally, adults prefer to sacrifice a meal in favor of children.

FIGURE 17 DISTRIBUTION OF PERCEIVED ADEQUACY OF HOUSEHOLDS' CURRENT INCOME, BY AREAS (2016).



Source: Own elaboration with data from Integrated Household Panel Survey, Report 2016.

People living in rural areas are generally poorer than in urban areas. Much of the rural population receive an income capable to satisfy the family daily expenses (37%), while 26% of households is not satisfied with their income, and they must supplement with borrowings. To meet their requirements, some households must rely on savings (23%). Borrowing is very common in rural areas, more than urban, probably due to a difference in cultural attitude. Only in the urban area households have chance to save some money. This last observation can explain also the reason of the rapid urbanization.

Climate changes have provided frequent and intense prolonged dry spells and floods. Weather shocks undermine subsistence production and access to food, especially in southern region, and in the most populated northern zone, where food consumption is higher than elsewhere. From December to March, during the lean period, households are obliged to compensate insufficient production with the purchase of food. In some years, such as 2009, 36% of households run out of food already by the month of October, majorly due to compromise food consumptions in rural areas, where live large numbers of households, headed by women, not literate people/or people with disability¹⁹. Nearly 70% of school children, aged 8–10 do not regularly eat breakfast before going to school. Major reason is the inadequate amount of food at household's level. Still during the lean season,

¹⁹ WFP Malawi country program, 2012-2016.

which coincides with the second school term, many children drop out of school because of hunger and malnourishment. Low number of calories per day reduces schooling performance and has trouble in learning capacity. Of course, the perpetuation of such malnutrition influences human capital, as well as productivity and economic development²⁰. Nutrition and easy access to food is still a challenge in Malawi. Even if the country experiences a decreased malnutrition level from 2004 to 2010, children in more central and southern rural regions suffer more problems of underweight. Very common problems are anemia, HIV, tuberculosis and other respiratory infections (WHO, 2000).

1.1 EDUCATION

The education system in Malawi is still very young. Only in 1994, the government has established free primary education, which includes the first eight years of compulsory schooling. Since then, the number of students enrolled increased year by year, and private schools started to develop as well. The education system follows the 8-4-4 rule. The primary school last for eight years, from Standard 1 to 8, and, if completed, it releases the Primary School Level Certificate (PSLC). The secondary school last for four years, and it releases two certificates, the Junior Certificate Examination (JCE) after the first two years, and the Malawi School

²⁰ WFP Malawi country program. 2012-2016.

Certificate Examination (MSCE) after the further two years. Finally, there are additional four years of tertiary education.

Primary School

Primary school (from Standard 1 to Standard 8) usually enrolls children from 6 to 13 years old. However, it is common to have children with different age in the same class, due to the high repetition rates. Subjects are different from science to math and social sciences, and children must pass the final PSLC final exam at standard eight, in order to progress to the secondary school. Primary school has usually three school terms: from September to December, from January to April, and from April to July. During the schooling months, weather is wet and humid, with high percentage of rainfall especially from January to April. Many students are more willing to drop the school during this time, due to the lack of easy transportation, floods, which affect the poor school infrastructure.

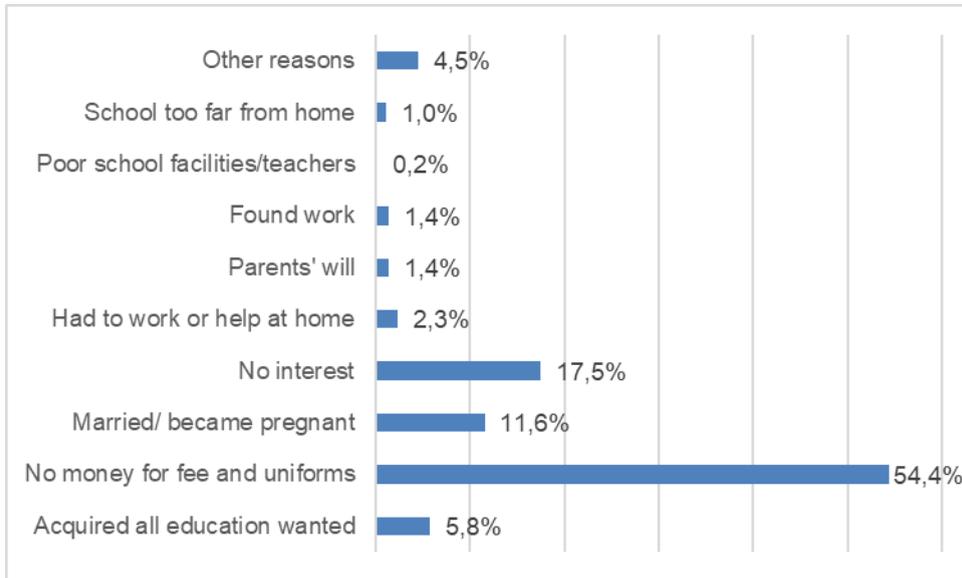
Unfortunately, the increasing enrollment of children did not go in parallel with the teachers supply. Therefore, the schools result under staffed, and very often underfunded, making challenging the entire primary education system. Teaching tools, such as books, desks, pens and other basic teaching material, are very poor. Often three kids share one desk and very often classes are outside in a temporary structure, making impossible to study during the rainy season. Lack of teachers is also due to the relatively young

teaching system, having the country only started free primary school in 1994.

Despite the absence of a primary school fee, children are required to purchase their own schooling material, including uniforms, pens and books, resulting very often very expensive for a normal family income. Lack of schooling material is one of the major reasons of school dropping, followed by will of parents, and lack of schooling infrastructures. Also because of all those problems, Primary education remains the highest level of education in the country. School dropping rates are high. Only 60% of children enrolled in the first year of primary school, reach the end of the fifth year (Standard 5), and only 40% reach the Standard 8 level (the end of secondary school)²¹. Poverty remains the first major reason of school dropping (54%), followed by no interest in school (18%), marriages and pregnancies (12%), and work outside, or helping at home (2%).

²¹ Source: Malawi statistical office, census 2008.

FIGURE 18 DISTRIBUTION OF STUDENTS BY SCHOOL DROPPING REASONS (2010).



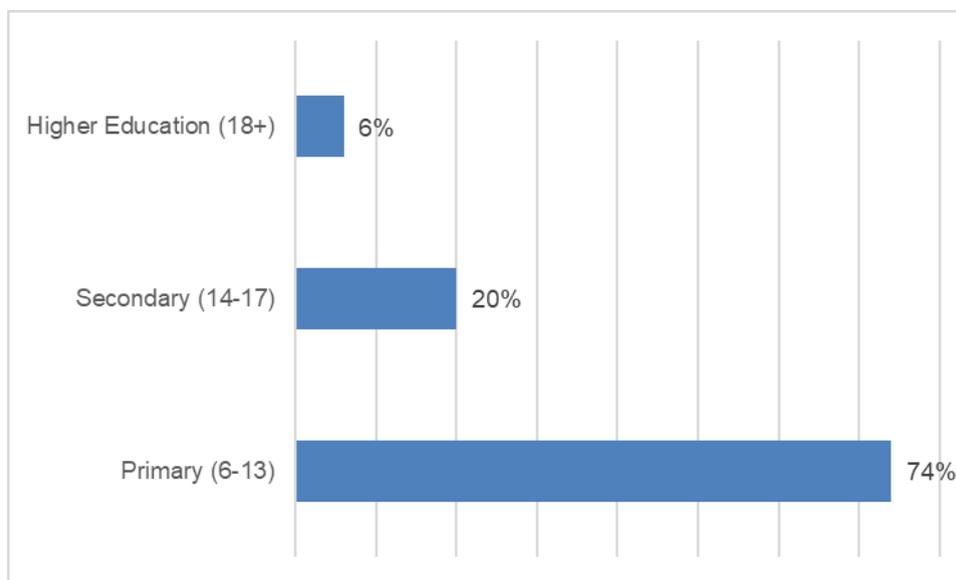
Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016

Secondary School

Secondary school runs from Form 1 to Form 4, and usually from age 14-17 years old. The government does not provide it freely. Students need to pay a year fee, varying according to the local community schools or boarding schools. At the second year of secondary school, students need to pass an examination, which allow them to get the Junior Certificate of Education. When reached the Form 4, the students attend another exam, which allows them to achieve the Secondary certificate of education (MSCE). Secondary school also struggles, with poor teaching levels and inadequate schooling materials. The MSCE certificate confers already a title to work. Therefore, only very few students are enrolled to the University, after the examination.

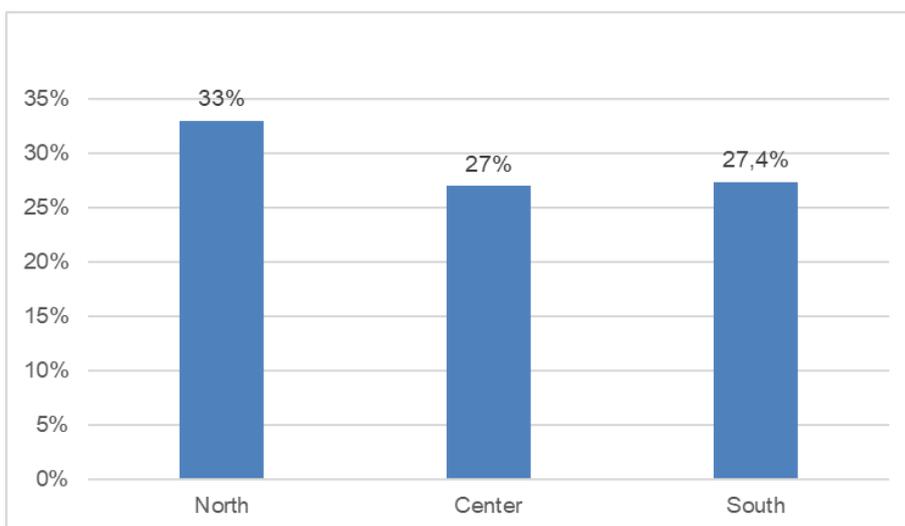
According to the last census (2008) from the Malawi National Statistical Office, Malawi has 74% of pupils enrolled in primary school, 20% attend the secondary education, and only the remaining 6% reach the higher education. The North has higher level of school attendance (33%), followed by the Center and South, with 27%.

FIGURE 19 DISTRIBUTION OF STUDENTS CURRENTLY ENROLLED IN SCHOOL, BY CLASSES (2008).



Source: Malawi National Statistical Office, census 2008.

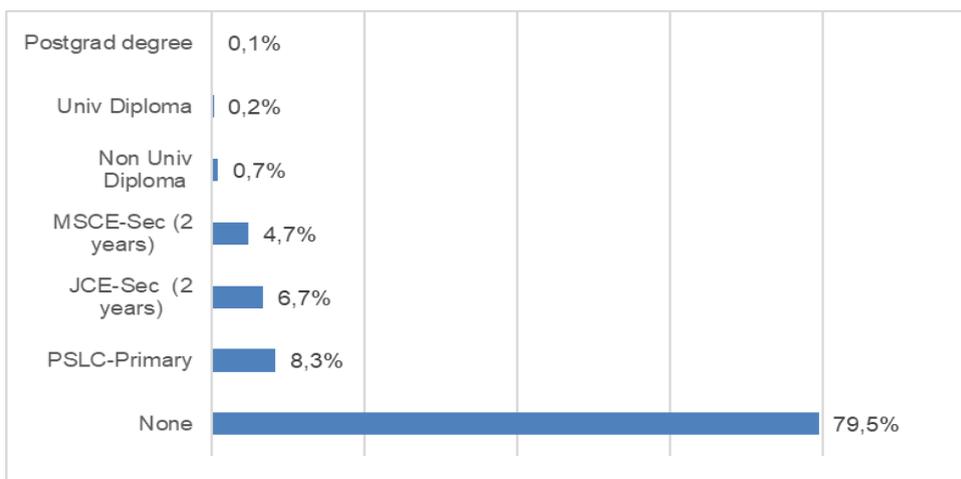
FIGURE 20 DISTRIBUTION OF STUDENTS CURRENTLY ATTENDING SCHOOL, BY REGIONS (2008).



Source: Malawi National Statistical Office, census 2008.

Despite many efforts made by the government to improve school enrollment, most of the population remains illiterate. 79% of the population has no education at all. The highest classes attended remain the primary schools. The first two years of secondary school are attended by 6% of the population, while only 4% attends the third and fourth years.

FIGURE 21 POPULATION DISTRIBUTION, BY SCHOOLING LEVEL (2010).



Source: Own elaboration with LSMS Data, from Malawi Survey 2010-2013-(IHS3).

Higher Education

Malawi's higher education system is very poor. The country counts only two public Universities, the University of Malawi (UNIMA) and Mzuzu University. UNIMA is the largest and the oldest university in the country and it counts different subjects of studies, including Agriculture, Medicine, Polytechnic for engineering and Nursing. The few Universities heavily relies on government subsidies for essential resources. Unfortunately, the government incomes are still poor, with continues dependency on foreign aids, and unstable financial support providing poor teaching activities, without any stimulation for quality research. Universities students usually receive an annual loan of MWK 25,000²² from the government, but often not on time²³.

Finally, University level is a privilege only for the 0.2% of the population. University of Malawi, founded in 1964, is still located in Malawi former capital of Zomba. The University consists into four colleges. Every one of them has a different specialization field²⁴. The Bachelor's degree takes 4/5 years to be completed. The Master level takes two years of full-time study, while the doctoral level requires more 3 to 5 years of study after the master level. The doctoral level concludes with a final dissertation and a mandatory

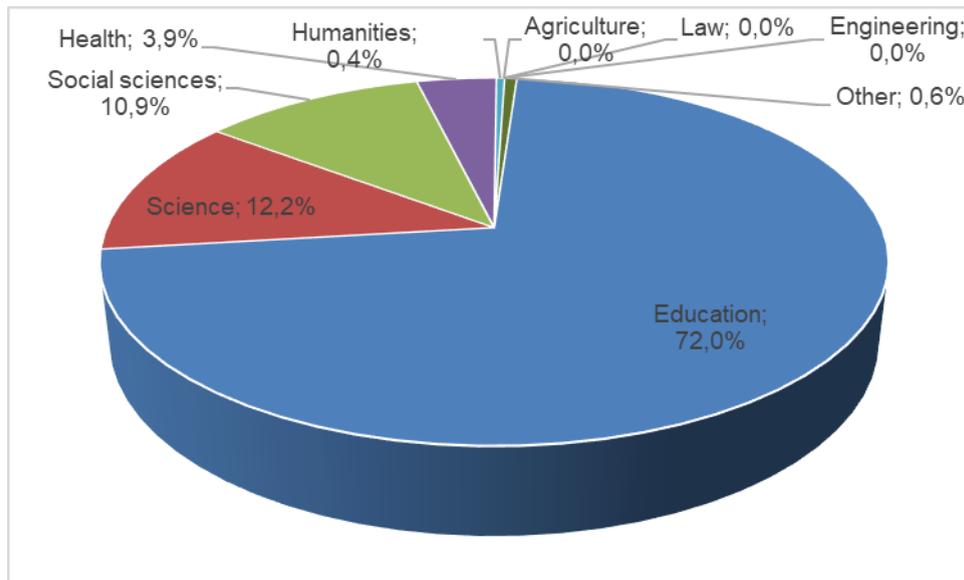
²² Equivalent in 2004 to 35.04 USD

²³ Source: World Bank report 2004.

²⁴ Bunda College has its own specialty in agriculture; Chancellor College offer arts, education, sciences, social sciences, law, and public administration; Kamuzu College provides nursing, community health, mental health, maternal and child health care, and medical surgical nursing courses; and the Polytechnic College gives more technical courses.

university residency of at least six months. Malawi major field of graduation studies is teaching (72%), following by science (12, 2%), and social sciences (10.9%). Medicine²⁵ is only at 3.9% while the remaining 0.4% is in humanities.

FIGURE 22 MALAWI TERTIARY EDUCATION GRADUATES, BY FIELD OF STUDY (1994).

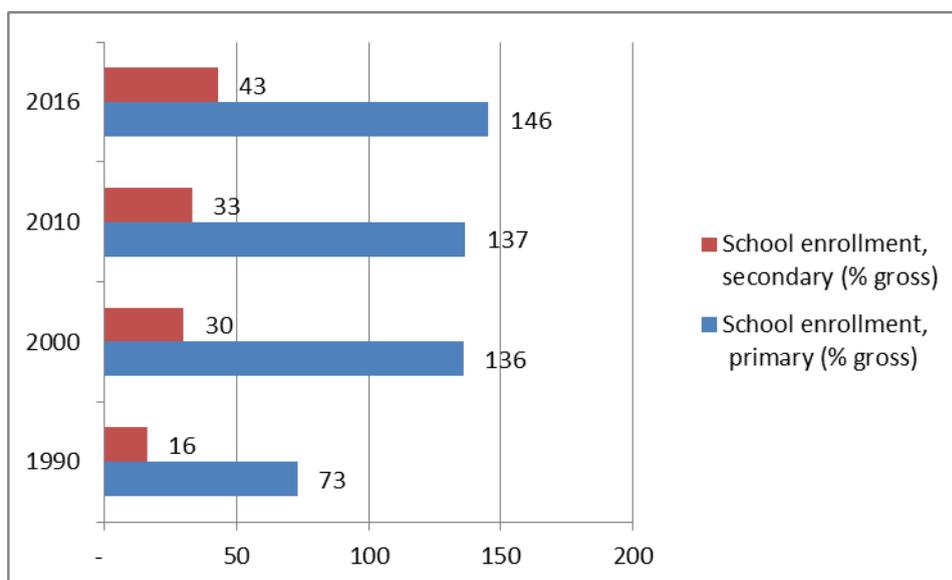


Source: Own elaboration with data from stateuniversity.com (1994).

Reasons for no schooling or dropping school

Primary education remains the highest level of schooling attended in the country. Thanks to the Free Primary Education Program, established in 1994, the primary school is free of charge. Yet only recently, Malawi has nearly achieved high enrollment into primary education. Moreover, attendance and completion rates are still low and classes' repetition rates are high.

FIGURE 23 EVOLUTION OF SCHOOLING ENROLLMENT BY NUMBERS OF STUDENTS IN PRIMARY AND SECONDARY LEVEL, FROM 1990 TO 2016.

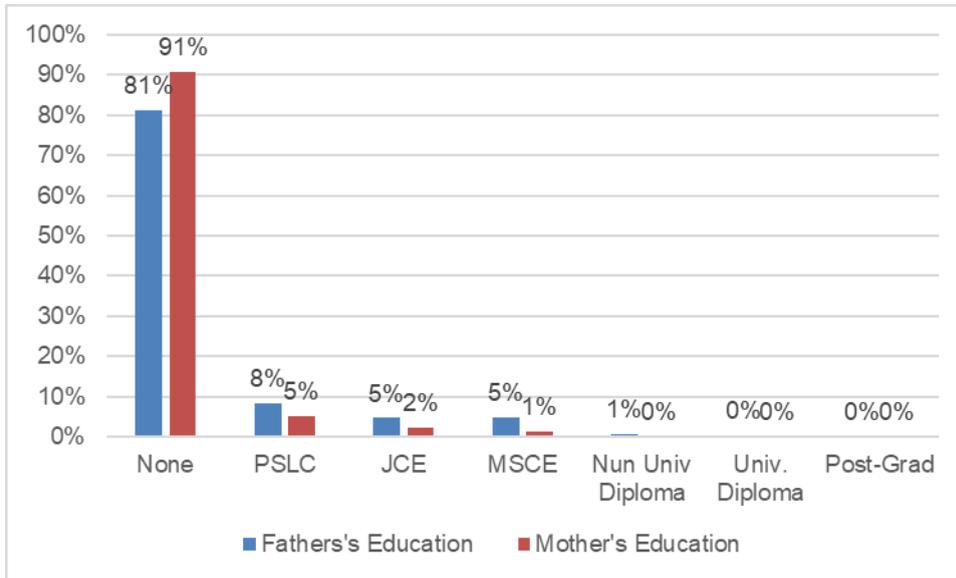


Source: WB Country Data²⁶.

Many of potential students decide not to attend the schools also because parents prefer them to work instead of studying. Because young for heavy works, many children help in house gathering and some also support the families' in household agricultural works, which do not require a physical strength, such as fertilizing. In a country where primary education has become more accessible only in the last decades, most parents remain illiterate, with only 8% of fathers and 5% of mothers completing the primary schools.

²⁶ Gross enrollment ratio is calculated by dividing the number of students enrolled in primary and secondary education, regardless of age, by the population of the age group officially corresponding to primary and secondary education.

FIGURE 24 DISTRIBUTION OF PARENTS' POPULATION, BY EDUCATION LEVEL (2010).



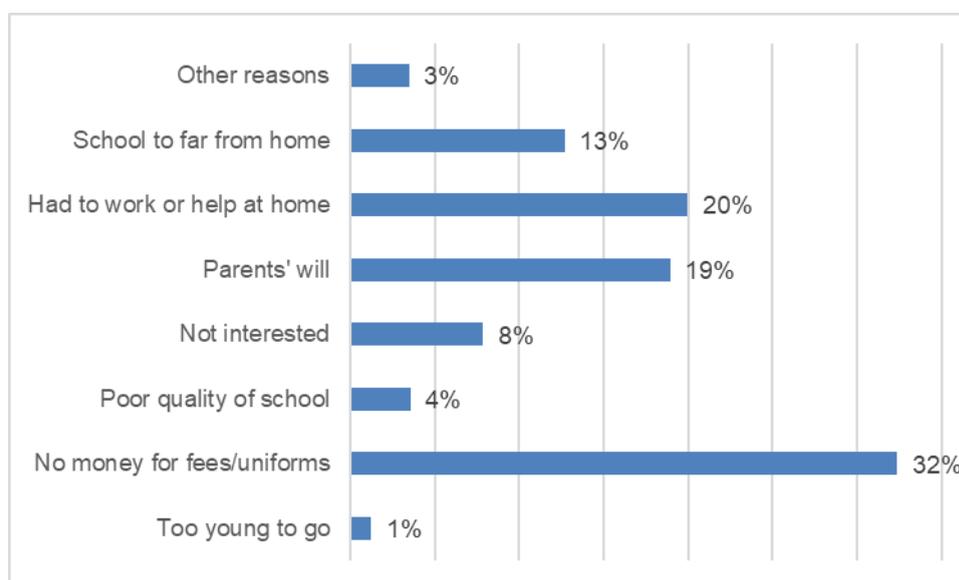
Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016

Primary schools are more frequent inside villages, secondary schools are less in numbers and located only in a few villages. Therefore, students attending the secondary level need to walk long distances to reach the schools. Several studies have proved how high distance from home to school is considered a major barrier to children school attendance. Mulkeen and Chen (2008) describe how in Chad, when the school is one kilometer away from the village, children enrollment is less than half than when the school is located within the village. In Malawi the expected walking distance from school to home is 5 kilometers away. Considering that transport system is inexistent, many of the children must walk long distances, especially in rural areas, where numbers of compulsory schools are less, and secondary schools are few and they are not located in every

single village. During raining seasons, it becomes even impossible for many of them to reach the schools, due to the bad street situation.

Quality of school infrastructure is also relevant. Usually three students need to share a desk and classes are often outside, without any covering infrastructure. During the rainy seasons, it becomes impossible to attend any class.

FIGURE 25 DISTRIBUTION OF STUDENTS, BY REASONS FOR NOT ATTENDING SCHOOLS (2010).



Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016

Poverty remains the most important reason of no schooling. High school fees, uniforms and teaching materials, such as books and pens, are very expensive, remaining unaffordable for families. With the beginning of the secondary school, expenses raise because families are supposed to sustain all school expenses, including fee, books, uniforms, pens, and most of the time also school maintenance.

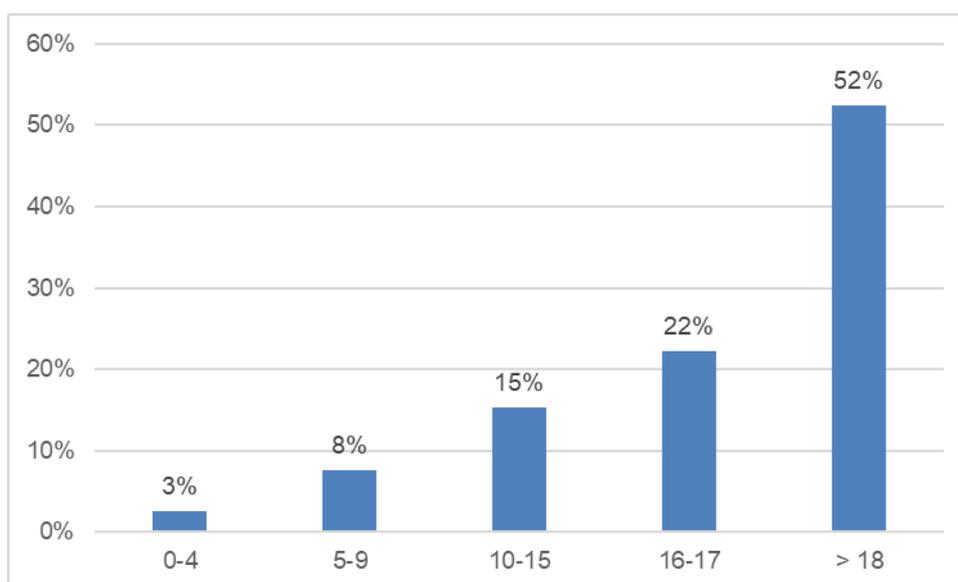
TABLE 6 AVERAGE SCHOOLING EXPENSES BY HOUSEHOLD, FOR ONE SCHOOL YEAR (2010).

SCHOOLING EXPENSES	MKW	USD
Materials	51.905	72
Uniforms	51.339	71
Boarding Fee	39.802	55
Maintenance	47.708	66

Source: Own elaboration with weighted data from Integrated Households Panel Survey 2010-2013-2016

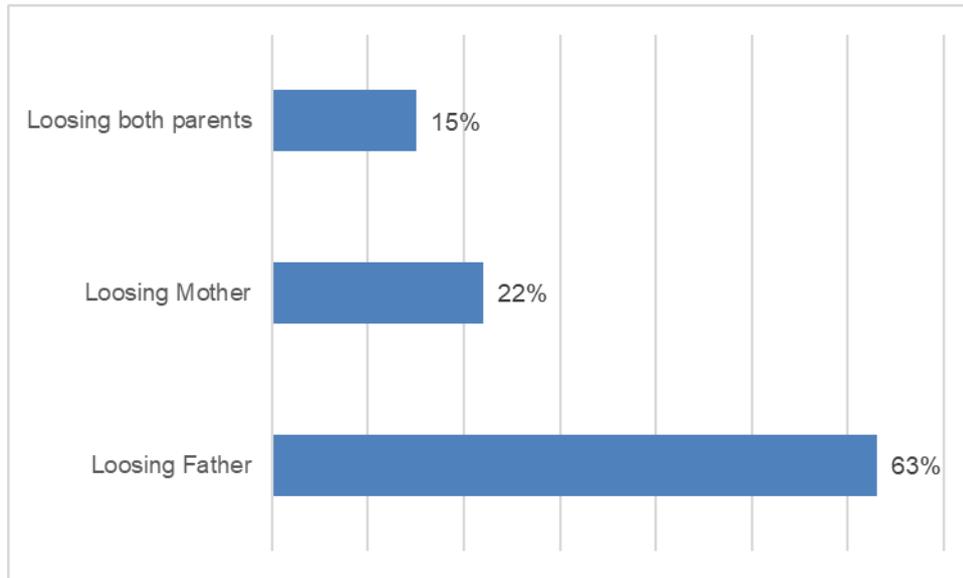
Another reason of no schooling is the orphanhood status. As well as birth mortality rate, orphanhood is a very common status for children below 18 years age in Malawi, particularly high for children between 16 and 17 years old. Due to the spread of HIV, the number of orphans reached roughly 10% of children, either in the urban or rural areas in 2016, among a children population of 6.8 mln, with 63% losing the father and 22% losing the mother, 15% losing both parents (Integrated Household Panel Survey, Report 2016).

FIGURE 26 ORPHANS' DISTRIBUTION BY AGE (2016).



Source: Own elaboration with data from Integrated Household Panel Survey, Report 2016.

FIGURE 27 ORPHANS' DISTRIBUTION BY PARENTS' LOSS (2016).



Source: Own elaboration with data from Integrated Household Panel Survey, Report 2016.

1.2 POLITICS

Politics is always a very sensitive topic, and generally its effects immediately impact on the country development. An unstable or difficult political situation can make a difference in a country development process, and in a developing country, it can increase the risk to perpetuate poverty.

Malawi is among the poorest country in the world, and despite its political changes and history, has been able to look forward and to implement social policies programs, with a strong interest to escape from a poverty situation, and to improve the living conditions of its population. The country, as ex-British colony, gained independency in 1964. After thirty years of autocratic regime, in 1994 the country became a democratic republic, where the president is both head of state and head of government, surrounded by a

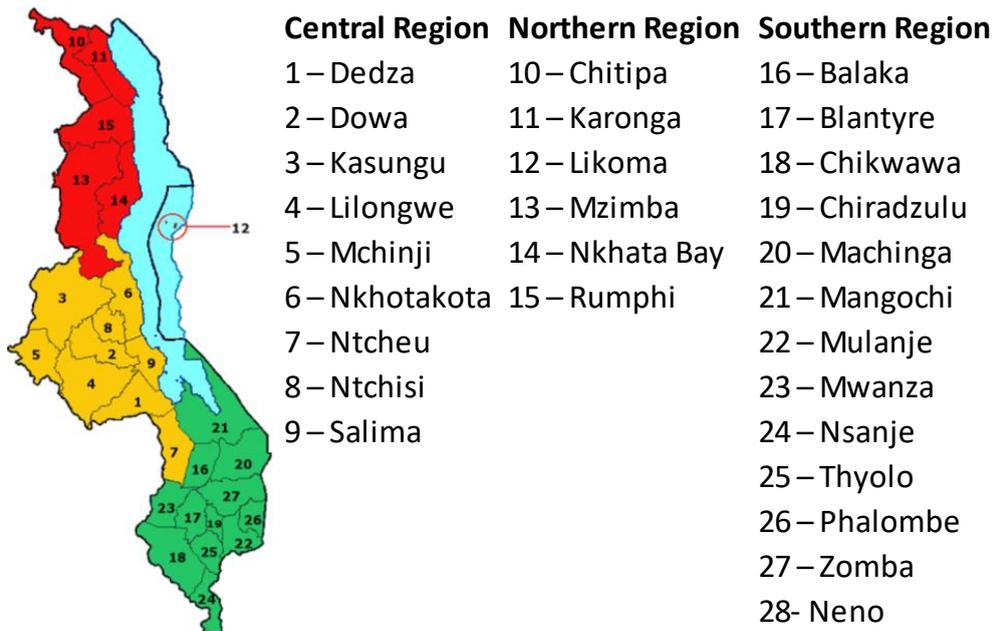
multi-party system²⁷. With the beginning of the democracy, the help of international organizations²⁸ and some debt reduction with foreigner countries, gave room for different social policy programs startups²⁹. Moreover, to be managed in a more efficient manner, the country has been divided in three big regions of North, Center and South, making the country administration easier. Graph below gives more details of the regions' distribution of the country in 28 districts. The extension of land and country geographical shape gives reason for districts divisions. However, lack of good transport system, low technology and poor infrastructures make difficult the country management, as well as any development initiative. Considering the starting poor conditions of the country, remains impressive the country policy effort to escape from poverty, and to implement successful social programs, such as SCTP and School feedings have been.

FIGURE 28 MALAWI MAP WITH REGIONS AND DISTRICTS.

²⁷The government has executive power; the judiciary power is independent, while the government and the national assembly vest the legislative power. The national assembly includes 193 members elected every 5 years.

²⁸ Such as World Bank, IFAD and IMF.

²⁹ The last section of the chapter take up again the different social policies implemented in the country.



Source: web

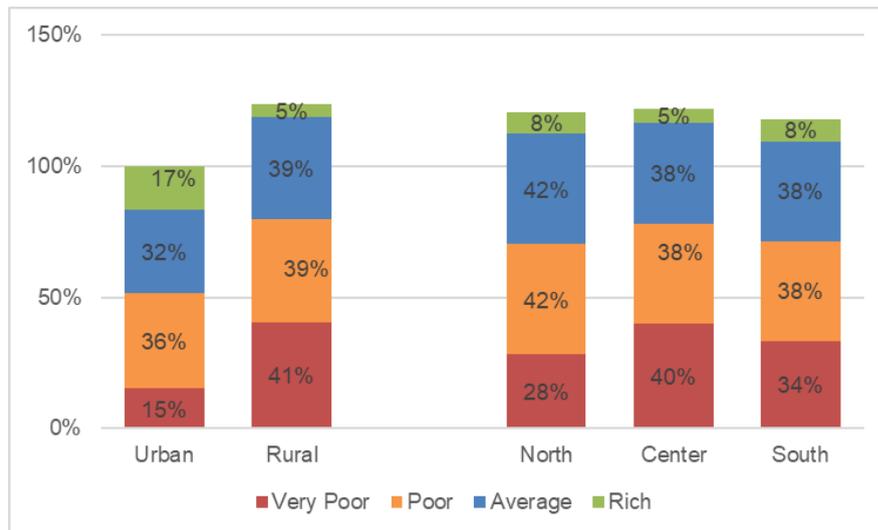
2 INSTITUTIONAL DETAILS

2.1 THE POVERTY SITUATION

Malawi is one of the poorest countries in the world. According to the UNDP human development index, the country ranks in the bottom 15% of the poorest countries, at the 170 places out of 188, in 2015. Despite the high fertility rate (on average 5.6 births per woman), infant mortality is also high (89 per 1000 births), life expectancy is low, on average 43 years, due to the strong presence of HIV/AIDS diseases, 28% of the adult population is illiterate and average schooling is of 9 years old. In rural areas and central regions, households declare to be poor and very poor. The only higher percentage of rich is in urban areas (17%), probably due to the higher level

of business, which stimulates local economy, providing more jobs and better food resources.

FIGURE 29 DISTRIBUTIONS OF HOUSEHOLDS WITH SELF-PERCEIVED CURRENT ECONOMIC WELL-BEING, BY AREAS AND REGIONS (2016).



Source: Own elaboration with data from Integrated Household Panel Survey, Report 2016.

Several are the reasons behind such underdevelopment of Malawi. The country landlocked geography does not facilitate the transports, impacting negatively on import and export costs. Extreme climate changes, with high rainfall seasons (December to April) followed by very hot dry winter season (September to November), combined with a very poor irrigation system, result in only one growing season (from May to August). Lack of a good political leadership also affects the country development. Malawi comes from a British colonization and thirty years of regime, which did not help to reduce income inequality, in egalitarian land distribution and inadequate social development. Most of the population still lives in rural areas, and even household with a small land ownership is not able to provide food to

the entire family. Major employment is in agricultural estate, where households earn only meager returns, when possible in cash otherwise in kind. The spread of HIV disease across the population has provided a change in the household's structure. More female has taken the family lead and many children became orphans. Very often the country experiences food crises, majorly due to weather shocks. However, from 2004 to 2010 people living in poverty have decreased from 52% to 39% thanks to new investments in infrastructures, increased families' provisions and easier access to social safety nets. In most recent years, families have more access to food and drinkable water, as well as sanitation, in percentage from 73% to 84% in 2005 and from 80% to 93% in 2010. In the past, several international organizations and donors have proposed different suggestions to try to alleviate the poverty issue in the country, with debt cancellation strategies, investments in public infrastructures, and incentives to trade policies. Most of those policies failed, many never reached the real beneficiaries, and sometimes they even became regressive politics, targeting non-poor beneficiaries. Like a pension funding system, paradoxically settled in the past, was covering white employees, counting 10% of the population, leaving many poor behind. In addition, the lack of a proper census, weak local government and corrupted bureaucracy, never helped to settle a proper safety net strategic policy. Despite all the poverty related problems, the country is willing to accelerate the economic growth and to

reduce poverty, with the help of effective social protection programs that can mitigate the economic and social side effects of an economic growth. In 2000, the Malawian government decided to move from poverty policy to poverty programming. As such, several social programs rapidly expanded, across the country. First, with the success of the pilot School Feeding Program in Dedza (1999), in 2000, the country expanded the program in two more districts, reaching 31,500 children in 58 schools. Moreover, in 2002, the government gave access to the Mary's Meals program private expansion. Finally, in 2006, the Social Cash Transfer Program (SCTP) was set up, first at district level, starting in Mchinji region, then also rapidly expanded to other regions. By 2010, SCTP scaled up to seven more districts, reaching 23,651 households and 92,786 beneficiaries (Miller et al. 2010). The programs are discussed more in details in the next sections.

TABLE 7 SCTP EXPANSION ACROSS DISTRICTS FROM 2006 TO 2013

	District	2004	2006	2007	2008	2009	2010	2013
Nord	Chitipa	no	no	yes	yes	yes	yes	yes
Nord	Likoma	no	no	yes	yes	yes	yes	yes
Center	Michinji	no	yes	yes	yes	yes	yes	yes
Center	Salima	no	no	yes	yes	yes	yes	yes
South	Machinga	no	no	yes	yes	yes	yes	yes
South	Mangochi	no	no	yes	yes	yes	yes	yes
South	Phalombe	no	no	no	no	no	yes	yes

Source: Miller et al, 2010.

2.2 CHILDREN SCHOOLING IN A CONTEXT OF POVERTY

In a contest of poverty, it is relevant to observe the correlation between poverty and children outcomes. Changes in family's income and poverty

environment can influence differently children outcomes. Children outcomes are usually measured through child wellbeing, where the specific dimensions of children wellbeing refer to physical health, cognitive ability, school achievement, emotional and behavioral outcomes, and teenager childbearing. Literature demonstrates that first, poor family income impacts negatively on child and adolescent nutrition, reducing physical health for older children, while providing low birth rate and high infant mortality for the youngest. Overall, low family income results to impact severely on cognitive abilities and schooling outcomes. A study conducted by Brooks-Gun and Duncan in 1997, reports clearly that children living below the poverty threshold are 1.3 times likely to experience learning and development disabilities. The earlier in life time the children experience the poverty, the higher cognitive negative effects occur. Also, the negative impact results to be higher on children experiencing long term poverty status, than for children living in poverty only for a short term.

Poor family income limits also schooling achievements. The effect of family income on schooling depends also by other confounding factors, such as parental education, family structure, also neighborhood and social environment. When children reach the school age, other extra-familiar factors influence children abilities and behaviors. Therefore, income effect matters more on early childhood (from birth to 5 years old) than later, from age 5 to 10. Thus, in poverty conditions, children and teenagers' wellbeing

is affected the most. But while family poverty impacts more on children abilities and achievements, environmental poverty affects more the emotional outcomes. Particularly emotional outcomes depend on the length of time the children experience the poverty. Persistent poverty impact on happiness and anxiety for instance, while short term poverty provides more hyperactivity or strong behaviors. Therefore, a social policy program, which aims to reach a positive impact on children, and goes to alter family income, should consider the different effects of poverty environment on children, and the related effects of family income on children. A cash transfer program cannot have positive effects on children, without prioritizing this distinction.

Concerning Malawi, since the ambitious program of free primary education (FPE) in 1994, the country embarked a big increase in primary school enrollment. However, the policy did not consider the real family costs for schooling, thus the poverty environment, which continues to be very expensive for many households, and did not consider also the quality of teaching. The primary schooling expansion requires more and qualified teachers, more school infrastructures and better transportations, and the country seems to lack on all those requirements (Kadzamira and Rose, 2003).

2.3 FAMILY ECONOMIC BEHAVIOUR IN MALAWI

Economic models of the family (see Persson and Jonung, 2003, for good survey) first included “common preferences models”, assuming that the family maximizes only one utility function. Family behavior is independent from households’ members. Second-generation “cooperative bargaining models”, differ from common preferences model, because of the independent agency of husband and wife, and the difference in their behaviors. Both the above models consider the family behavior as Pareto optimal. No family member can be made better off, without another family member made worse off. This idea is attacked by the non-cooperative models of the family, which imply that family behavior can be inefficient. Norms and convention can affect bargaining actions inside marriage, influencing the decisions. Therefore, family policy intervention needs to count the marriage market of the country where the evaluation applies.

Especially for the last class of models, economic modeling of the family and family decision-making becomes an important aspect of policy design. Policies should not simply target the household head, but understand the dynamics of family decision-making, based on headship or gender rules. In Malawi there are two types of marriages, a matrilineal marriage and a patrilineal marriage. In the first case land is transferred through women, from wife, to daughter and nieces. Married couples take residence in the women land and in case of partners’ separation, the husband goes back to

his village and children remain with the mothers' families. In case of patrilineal marriage, things happen the other way around. The family lives in the father's village, and land is transmitted from father to son and in case of partners' separation, the children remain with the father's family. Around the mid-nineteenth century, Malawi family culture shifted from the matrilineal approach, to a more patrilineal culture, probably due to the advent of the Christian missionary activities, colonialism, and the modern capitalist economy. A recent study conducted by Meijer et al. (2015) analyses the families' decision behaviors of different families across the country, by looking at the several agricultural activities and how the households' parents' members were acting, during decisions. The study noticed that in some villages, decisions are taken by the father, while in other villages by both father and mother together. Very uncommonly decisions are taken by the mother alone. The results of the study proof that most of the agricultural activities were carried out jointly from husband and wife, while other activities were more specific, respectively to wife or husband. For instance, firewood collection decision was more related to women, while tree planting and management activities were more related to fathers' independent decisions. Finally, the selling of farm products was equal for fathers, mothers or joint decisions. The study concludes by assuming that the selected households were using a mixed decision approach, demonstrating that the household head is not always the only

decision maker. Meijer et al. (2015) also show that when legal institutions do not provide enough enforcement to marital contracts, intra households' equilibria stand more on self-enforcement. In addition, Pareto efficiency is affected by institutions, by social context of marriage and by the characteristics of the marital partners. Individuals in a household can compete as well as co-operate, recognizing that the individuals' behaviors inside a household have direct implications on the production.

3 MALAWI SOCIAL SAFETY NETS PROGRAMS

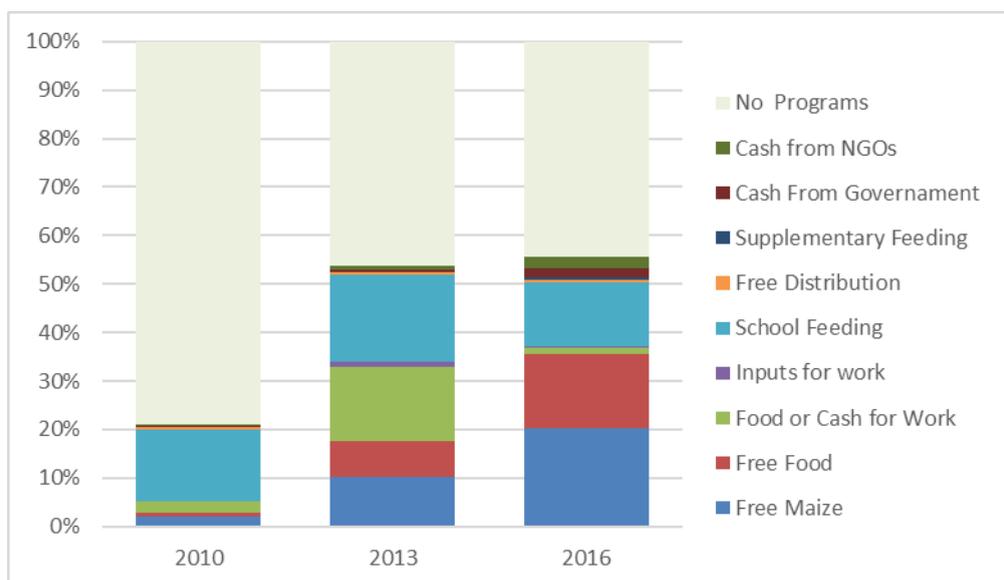
During the 1980s, Malawi was ranked as one of the poorest countries in the world, with a population living with 1 USD per day. To provide a concrete help to the country, institutions such as World Bank and the United Nations forced the country to implement conditional policies for accessing foreign aid, which however ended up being detrimental. Foreign aid brought about an increase in the cost of living and spurred an inflationary process. Unemployment also increased because of the new policies, due to the push to privatization in sensitive areas, such as health and education.

One of the major reasons for policy failure in this first wave of programs was the lack of consideration for cultural, and political and social background of the country³⁰. Therefore, the second trend of social policies was set up with the name of Social Protection Policies, to reduce

³⁰ Government of Malawi (2015) Report.

households' vulnerability and poverty levels. The IHS2 survey conducted in 2004-2005 by the Malawi government and World Bank already reflects the new policy attitude and gives the basis for the implementation of one of the most outstanding social programs ever implemented in a poor country, the SCTP implemented in 2006. The program objectives were reducing hunger and starvation among the poorest, increasing educational attainment and spreading information about the benefits and costs of a social protection program. Malawi benefits also from other cash transfers programs received from donors and developing organizations, together with other in-kind programs, such as school feeding, free maize, free food, and food/cash for work. In 2016, the percentage of people benefiting from the safety net programs increased comparing to previous years (2010 and 2013), particularly for free food, free maize and supplementary feeding, but also from supplementary programs set up in support of the major cash and in-kind transfers programs.

FIGURE 30 DISTRIBUTION OF HOUSEHOLDS BENEFITING FROM SOCIAL PROGRAMS IN MALAWI DURING YEARS 2010, 2013, 2016.



Source: Own elaboration with data from Integrated Households Panel Survey, Reports 2010-2013-2016.

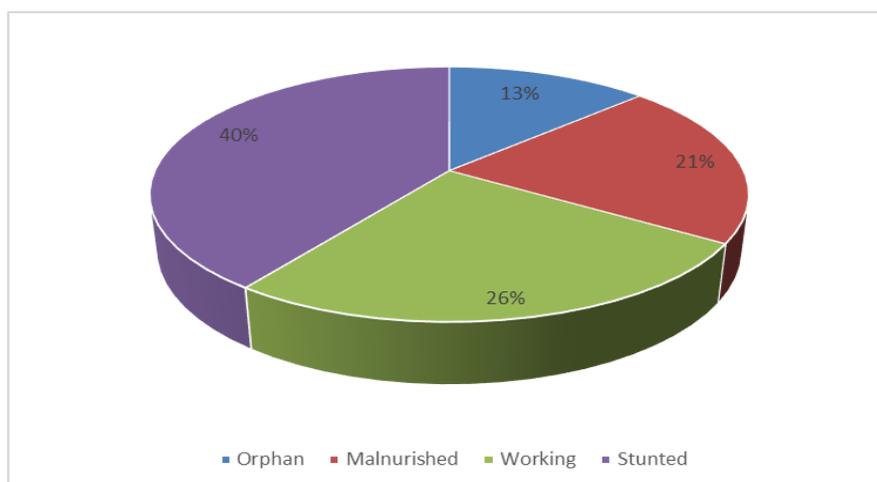
3.1 THE MALAWI SOCIAL CASH TRANSFER PROGRAM

In 2005, the government of Malawi issued a survey to estimate the poverty situation of the country and to establish the poverty threshold level. IHS2 (2004) revealed that 45% of the local population was living under the poverty line³¹, and that 17% of the population was living even under the ultra-poor poverty line³². People aged below 18 years old often live in very poor conditions.

³¹ The poverty line has been calculated considering aggregated consumption. The consumption aggregate comprises four main components: food, non-food, durable goods and housing. The total poverty line comprises two principal components: food and non-food. The food poverty line represents the cost of a food bundle that provides the necessary energy requirements per person per day, multiplied by the price per calories. The non-food poverty line represents an allowance for basic non-food needs. It was estimated as the average non-food consumption of the population whose food consumption is close to the food poverty line. The total poverty line is the sum of the food and non-food poverty lines. Source: Malawi Survey. Final Report, 2013.

³² Less than 1 USD per day: not even a meal per day is guaranteed.

FIGURE 31 DISTRIBUTION OF CHILDREN BY SOCIAL STATUS IN MALAWI (2005).



Source: Malawi Ministry of Gender, Children, Disability and Welfare

One year later, in 2006, also because of the survey results, the Malawi government implemented an unconditional cash transfer program, the SCTP. The program started first in the region of Mchinji. By 2010, the program expanded in seven other districts of Malawi, Likoma, Machinga, Salima, Mangochi, Chitipa and Phalombe, with Mchinji being the only district implementing it at full scale. By 2015/16, the program reached 304,534 households, with annual costs of MK 10.1 billion [USD 68.5 million], around 1.4%³³ of the country GDP³⁴.

³³ Assuming a GDP for 2015/16 of MK 740 billion (USD 5 billion).

³⁴ Source: Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW) in Malawi.

TABLE 8 PERCENTAGE OF INDIVIDUALS' BENEFICIARIES FROM TOTAL CASH TRANSFER, DISPATCHED BY GOVERNMENT FROM 2010 TO 2016.

Fiscal year	Households covered	Tot population	Number of Individuals (*) SCTP Beneficiaries	% beneficiaries	Annual costs in USD	Annual cost in MWK
2010/11	83,231	15,167,095	374,540	2.47	13,278,281	1,965,185,588
2011/12	151,057	15,627,618	679,757	4.35	27,205,131	4,026,359,388
2012/13	229,420	16,097,305	1,032,390	6.41	43,783,139	6,479,904,572
2013/14	270,557	16,577,147	1,217,507	7.34	56,761,568	8,400,712,064
2014/15	304,534	17,068,838	1,370,403	8.03	65,122,439	9,638,120,972
2015/16	304,534	17,573,607	1,370,403	7.80	68,520,168	10,140,984,864

SOURCE: DATA FROM WORLD BANK COUNTRY DATA AND MALAWI MINISTRY OF GENDER AND EDUCATION.

Policy Objectives

The objectives of this policy implementation are different from other similar programs. The government of Malawi wants to improve food security and to increase education, with higher school enrollment and attendance, especially for children without parents or suffering from illness. The incentive to attend school also helped to mitigate gender-based violence and increase the level of employment and participation in the community life.

Policy Assumptions and Beneficiaries

In Malawi, most poverty proxies result inappropriate because many households face hunger and do not have any valuable assets. Therefore, a distinction between poor and ultra-poor is important. The SCTP targeted people living in ultra-poor conditions, which include a labor-constrained situation. A household is defined as labor constrained when:

1) it has no able-bodied member in the age group 19-59 who is fit for work, consisting exclusively of the elderly, children, chronically ill, or disabled persons;

2) it has a member who is fit for work but has to care for more than three dependents (dependency ratio of more than three; see Table 9 for a detailed definition of dependents).

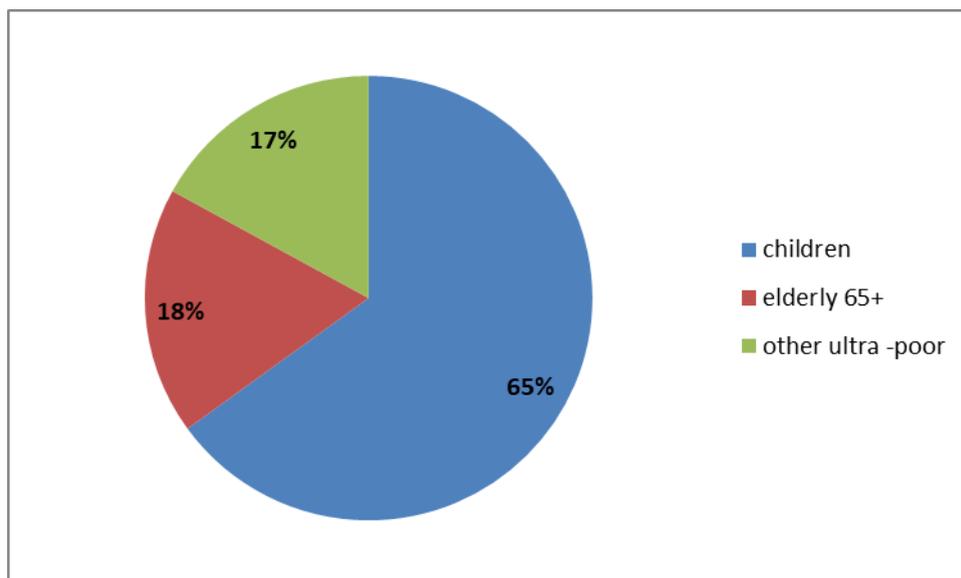
TABLE 9 PEOPLE INCLUDED IN THE SCTP DEPENDENCY RATIO CALCULATION (2010).

Dependency ratio	Children < 19 years old
	Elderly > 64 years
	Chronically ill and disabled adults aged 19–64 years

Source: Miller et al., 2010.

By providing basic cash, the policy allows the family to sustain at least three meals per day, encouraging children to focus on school activities, which would have been impossible without this provision for basic needs. In addition, the increase of school attendance would move children away from labor market, reducing also other risks, such as children prostitution and consequent health problems. It turns out that 65% of beneficiaries are children, mainly orphans, and 18% are people over 65-year-old. The program reached 83,000 beneficiaries (HH) in 2010 and 304,534 (HH) in 2015 (Source: Malawi Statistical Office).

FIGURE 32 SCTP BENEFICIARIES COMPOSITION (2005).



Source: Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW) in Malawi.

The cash transfer amount follows the number of households' members. However, in presence of children, the receiving amount has a top up value of MWK140 per child, which is equivalent to USD1.

TABLE 10: AMOUNT OF CASH TRANSFER BY HOUSEHOLDS' MEMBER (2010).

Size of cash transfer for households		
Number of household members	MK per month	US\$ per month
1	600	4.3
2	1000	7.14
3	1400	10
4	1800	12.85

Source: Miller et al., 2010.

TABLE 11 CASH TRANSFER PAYMENTS BY SCHOOL LEVEL (2010).

School age	Top up Payment
Primary school aged children	MK200
Secondary school aged children	MK400

Source: Miller et al., 2010.

Selection and Poor Targeting Criteria

Targeting the right beneficiaries in a transfer program schedule is a very difficult task, also because of the high management costs at local and central government level. The risk of selecting the wrong beneficiaries is very high, especially in countries where lack of a good census system and corruption at the local level, can address the cash to the wrong person, making the transfer a regressive tool instead. There are two major techniques to target the beneficiaries: the *proxy mean testing*, very much used in Latin American countries, and the *community selection*. The second method looks more appropriate in poorest countries, where the community itself is in charge to indicate the families in need of the transfer, and it has been used in Malawi. Of course, the risk of bias with this technique is very high; the decision makers are prone to manipulate selection for selfish interests and the major problem at the beginning of the safety net implementation was exactly the targeting mechanism. Thus, to avoid more problems during the SCTP selection process, Malawi used the community-based method, bounded with a participatory targeting process, where community members decide which households meet the criteria and the entire community can challenge the list of the selected beneficiaries. The process transparency is also guaranteed through a local knowledge assistant, which is present during the recipients' selection and the Community Social Protection Committees (CSPCs), elected to estimate the poorest households that are also labor constrained, in the proper rights to receive the social cash

transfer support. According to Miller et al. (2010), before the policy implementation in the selected districts, different local workers were in charge to introduce the policy to the selected members of the CSPC. The CSPC members' selection of beneficiaries is settled by community knowledge. They also visit homes to help households to fill out an application, while local village headmen sign the SCTS applications and make sure the accuracy of the procedure. Finally, the CSPC members rank the beneficiary's households in a community meeting.

3.2 THE SCHOOL FEEDING PROGRAM

Among the different food-based programs³⁵ in Malawi, School Feeding is foremost for success and effectiveness. The program was initially commissioned in 1999 to the World Food Program (WFP) and other two NGOs (Action Aid and GIZ) to be a pilot project for the Dedza district. Because of the positive results, the government decided to expand the program at country level between 2006 and 2009. The program is now implemented by the Ministry of Education (MoEST) and supported by WFP and other partners. The program is set up to improve school enrolment and attendance for girls and orphans, and to compensate the gender gap in favor of girls. All pupils in the targeted schools³⁶, receive a mid-morning serving of porridge (Likuni Phala), in each school day. In addition, orphan girls and

³⁵ All major programs enacted in Malawi since 2005 are reported in Table 14 of Appendix B.

³⁶ The schools must be accessible by truck, have potable water, storage facilities and good community participation

boys, in standards 5–8, receive take-home rations (THR) of maize in the months from January to April, by providing the 80% of school attendance. At the end of 2009 the program supported 947,503 children in the country, delivering 100 g of Likuni Phala per day per pupil, 12.5 kg of maize per month (take-home rations) to all girls and orphaned boys from grades 5–8, from January to April, with a cost of USD 22 per year per child. The distribution of daily school meals contributes to reduce short-term hunger, which slows down the learning process, improves children concentration, as well as the assimilation of information. The take home rations³⁷ also contribute to reduce gender disparity and become an incentive to send girls to school, as well as allowing orphaned children to continue to attend classes.

³⁷ The program mostly provides 12,5 kg of maize for orphaned children, both girls and boys, attending 80% of school classes.

TABLE 12 SFP EXPANSION IN MALAWI FROM PILOT PROJECT TO 2009.

Year	SFP Expansion by NGOs	Districts	Numbers of Schools	TOT Beneficiaries Children
1999	WFP Pilot Project	Dedza	24	23,000
2000	WFP expansion project	Ntcheu and Salima	58	31,500
2006	<i>TOT School feeding Program in Malawi</i>		489	603,500
2009	School feeding Program in 2009 provided by WFP	Ntcheu	22	
		Kasungu	108	
		Lilongwe	33	
		Salima	39	
		Dedza	27	
		Chikwawa	74	
		Mulanje	69	
		Mangochi	44	
		Phalombe	54	
		Zomba	45	
		Nsanje	63	
		Chiradzulu	47	
		Thyolo	54	
	<i>Served schools and children by WFP sub total</i>		679	642,109
2009	School Feeding Program provided by Mary's Meals	Blantyre, Chikwawa, Chiradzulu, Dowa, Karonga, Kasungu, Likoma, Lilongwe, Mangochi, Mchinji, Mulanje, Mwanza, Mzimba, Neno, Thyolo	190	300,295
	School Feeding Program provided by Millenium Village (NGO)	Zomba	5	2,404
	School Feeding Program provided by Land's O Lakes (NGO)	Karonga & Dowa	5	2,695
	<i>TOT schools and children served in Malawi in 2009</i>		879	947,503

Source: Malawi SFP. WFP, Report 2009.

3.3 THE MARY'S MEALS PROGRAM

Another school feeding program strongly present in the country, but with a widely different story from School Feeding, is the Mary's Meals program. It is a global charity movement that works to provide a daily meal to all children, living in places where poverty and hunger prevent them to attend school. The children are usually enrolled into the primary school, and they are fed in their place of education. The program was set up in 1992 as

Scottish Relief International, privately funded, to sustain Bosnia Herzegovina. In 2002 it was brought to Malawi as a pilot project, delivering daily school meal of fortified corn soya blend to 200 children. MMP was decisively stepped up in 2009 and is present today in nineteen districts of Malawi. Yet, no take-home rations are provided within MMP.

Targeting the poorest and most vulnerable, in 2016 the program fed 806,735 children in 635 primary schools every day. Moreover, in 2016, the program fed also 7,265 children under six years old in the southern regions of the country. Even if it is committed to work closely with the central government, and it is aligned with government priorities, MMP is completely dependent on volunteers. The program supports local suppliers, procuring the food locally, or buying it from local farmers and their families. School and local community are partners with Mary's Meals for the food preparation and serving management. The volunteers are trained by the MMP officers, who are also in charge for the control and monitoring of the program.

TABLE 13 MMP EXPANSION IN MALAWI FROM PILOT PROJECT TO 2016

Year	2002	2009	2011	2013	2014	2015	2016
Districts	In one Malawian school in the South Region, feeding 200 children	Chikwawa	Blantyre	Dowa	Karonga	Machinga	Mwanza
		Kasungu		Balaka			
		Likoma		Chiradzulu			
		Lilonge		Mulanje			
		Mangochi					
		Mchinji					
		Mulanje					
		Mwanza					
		Mzimba					
		Neno					
		Thyolo					
		Zomba					

Source: WFP School feeding report 2009 and MMs Impact Assessment- June 2016.

3.4 OTHER SAFETY NET PROGRAMS IN MALAWI

The following section describes other safety net programs present in the country and set up after 2005, in compliance with the National strategy to eradicate poverty and to improve livelihood of the most vulnerable (see Table 14 in Appendix B for a comprehensive list).

WASH: Water Sanitation and Hygiene program

In Malawi in 2009, only 4% of schools had hand wash facilities and only 23% had acceptable sanitation. WASH Program aims at improving access to, and sustained use of, safe water supply from 66 to 80 % in the designed districts. Water, Sanitation and Hygiene (WASH) Program in Malawi was implemented from 2007 to 2013, with the financial support from the

government of the Netherlands and the partnership of UNICEF. The targeted districts were 12³⁸ out of 28.

Support to Early Childhood Development Programs

Support to Early Childhood Development Program (SECDP) targets children from birth up to 8 years old. It is a multi-sectorial program, which aims to contain early learning and stimulation, health, education, nutrition, hygiene and sanitation with the aim to stimulate and protect child cognitive skills, emotional, social and physical development. It is part of the Malawi government strategic plan from 2009 to 2014, set up with the aim to scale up all the ECD services to reach and support all the children, particularly living in more remote areas of the country, where national programs are missed, and child growth and development receive less attention.

The Farm Inputs Subsidy Program (FISP)

FISP core objective is to increase resources of poor farmers, by improving agricultural inputs and helping them in achieving food sufficiency, raising their income with a better farms' efficiency. FISP is more oriented to sustain the ultra-poor with some available productive labor, and moderate poor with available productive labor. Two different ministries establish and manage the programs. The Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW) manages the SCTP, while the Ministry of

³⁸ Kasungu, Mchinji, Lilongwe, Salima, Dowa, Mwanza, Mangochi, Blantyre, Chitipa, Nkhatabay, Mzimba and Likoma.

Finance, Economic, Planning and Development manages FISP. Matita and Chirwa (2014) discuss some issues about harmonization of the beneficiaries targeting system across ministries.

Gender Equality and Women Empowerment (GEWE)

GEWE program aims to improve gender equality and human rights equity, with intention to reduce HIV, AIDS and general poverty. The program last 3 years and it is funded by the EU and UNFPA. As a pilot project, it exists only in 13 districts among the north, center and south regions. Targeted beneficiaries are not only women and girls, but also boys and men³⁹.

APPENDIX B

TABLE 14 MAJOR SOCIAL PROGRAMS IN MALAWI FROM 2005 TO 2016

³⁹Source: Malawi Ministry of Gender, Children, Disability and Social and Social Welfare.

Program Target	Program Name	Provided by	Begins	Goal	Objective	Program Duration	Key Focus Areas	Beneficiaries
Gender Balance	Gender Equality and Women Empowerment Programme (GEWE)	Ministry Of Gender, Children Disability and Social Welfare	2012-2016	To support Government's commitment to reduce gender inequalities between men, women, girls and youths in accessing productive resources and development opportunities as well as promoting decision making in order to contribute positively to the Malawi Growth and Development Strategy (MGDS) II and accelerate attainment of Millennium Development Goals	to contribute towards acceleration of efforts to advance gender equality and equity as a human right for the reduction of HIV and AIDS and poverty in line with the Malawi Growth and Development Strategy (MGDS), the National Gender Policy (NGP) and (the future Gender Sector Wide Approach).	4 years	The Programme is being implemented on a pilot basis in 13 districts of the country representing the diversity of gender issues in all the three regions as follows: Chitpa, Karonga, Nkhatabay and Mzimba in the Northern Region; Dowa, Mchinji, Salima and Dedza in the Central Region; and Mangochi, Machingo, Chiradzulu, Chilwawa and Nsanje in the Southern Region.	women, men, girls and boys, particularly in the 13 target districts, that will be reached directly or indirectly by the Gender Machinery with interventions aimed at improving gender equity and equality.
Community Development	Social Cash Transfer Programme (SCTP)	Ministry Of Gender, Children Disability and Social Welfare	2006 pilot project in Mchinji district	to support the long-term goal to improve the life of the most vulnerable.	to provide social protection for households who are ultra poor and unable to establish a viable livelihood due to being labour constrained. The Malawi Social Cash Transfer Programme (SCTP) was designed to alleviate poverty, reduce malnutrition and improve school enrolment by delivering regular and reliable cash transfers to ultra poor households that are also labour constrained.	still active in 2016	pilot project in Mchinji region in 2006 and scale up by rolling out the programme to 6 additional districts per year.	Direct Beneficiaries: All members of households who are ultra poor households and at the same time labour constrained. A household is defined as labour constrained when it has no able bodied household (HH) member in the age group 19-59 who is fit for work (households consisting exclusively of the elderly, children, chronically ill, disabled persons) or when a HH member who is fit for work but has to care for more than 3 dependents (dependency ratio of more than 3). Indirect Beneficiaries: Members of the surrounding community are relieved from overwhelming social burdens as former ultra poor households now have a reliable income and adequate access to food. Beneficiary households have been observed to share some of the money, give loans and provide employment (through hiring of casual labour) to other non-beneficiary households. Additionally, local business owners and traders have experienced an increase in customers and therefore business profits. This results in growth in the local economy and strengthening of the local market.
Child Development	School Feeding Program (SFP)	From 1999 to 2006 provided by WFP, Action Aid and GIZ. From 2006 provided by the Ministry of Education, Science and Technology (MoEST) still with WFP support.	1. In 1999 WFP Pilot Project- 2000- 2. Repeated Project in 2000- 3. set up of School Feeding Program from MoEST in 2006	to improve school attendances and reducing drop out rates for girls and orphans children from standard 1 to 8	It provides porridge school meal served for every school day for children (boys and girls) from standard 1 to 8+ take home ration of 12.5 kg of maize per month for each girl and for orphan boy, who has lost both parents, after proof of 80% attendances of school days, as an incentive to stay in school (WFP, 2006). Initially totally managed by WFP with logistics support from Gov. From 2006 became a Government policy, providing also non food items in the form of materials for the school communities to construct kitchens, store rooms and feeding shelters.	still active in 2016	Pilot project from WFP in Dedza District in 1997. Pilot expansion in Ntcheu and Salima in 2000- Expansion of the SFP from 2008 in: Salima, Kasungu, Lilongwe, Chilwawa, Mulanje, Mangochi, Phalombe, Zomba, Chiradzulu, Nsanje, Thyolo.	All pupils in the targeted schools (primary - standard 1-8) receive a mid-morning serving of corn soya blend (Likuni Phala) porridge each school day. In addition, girls and orphan boys in standards 5-8 receive take-home rations (THR) of maize in the months of January to April provided they attend 80 percent of school days.

Child Development	Mary Meals program	From 2002 to present. Provided by a private founder of the Scottish Relief International.	In 2002	to improve school attendances and living conditions of the poorest and most vulnerable children	Mary's Meals provide one nutritious daily meal to every child in a place of education. In 2016, it is also feeding 7,265 children in 45 under-six centres in the southern region.	still active today	Started in 2002 serving currently 19 districts. Blantyre, Balaka, Chikwawa, Chiradzulu, Dowa, Karonga, Kasungu, Likoma, Lilongwe, Machinga, Mangochi, Mchinji, Mulanje, Mwanza, Mzimba, Neno, Thyolo, Zomba, Balaka.	All pupils in the targeted schools (primary - standard 1-8) receive a mid-morning serving of corn soya blend (Likoni Phala) porridge each school day. Since 2016, it is also feeding 7,265 children in 45 under-six centres in the southern region.
Child Development	Support to Early Childhood Development Programme (SECDP)	Ministry Of Gender, Children Disability and Social Welfare, with the management of the Ministry of Gender, Children and Community Development	ECD plan from 2009 to 2014.	to facilitate the provision of ECD services in key areas of legal and institutional framework, access and equity, quality and relevance, research, monitoring and evaluation for purposes of raising the quality of ECD in Malawi.	The SECDP project intends to: -build the capacity to increase, access and equity in ECD service provision by 2014. -develop standards to improve quality and relevance of ECD service. -strengthen partnerships, leadership and coordination among various ECD stakeholders and structures to ensure improved governance and management of ECD Programmes. -support the development of an effective ECD monitoring and evaluation system.	5 years	National level	girls and boys, who can participate in education and development programmes in the country by ensuring that they have access to ECD services and therefore, a good start in life and preparation for formal education. The programme addresses issues of abuse of the girl child, by offering protection through the activities around the ECD centre and capacity building of various service providers at the grassroots level such as child protection workers and other extension workers.
Child Development	Construction of Girls' Hostels at Mpeemba and Chilwa Reformatory Centres	Ministry Of Gender, Children Disability and Social Welfare	2013	to reform and to re-integrate girl juvenile offenders into their communities and provide them the ability to take control of their lives and to contribute to the development of the country.	To protect the rights of girl juvenile offenders. To keep the girl juvenile offenders out of adult prison. To reduce risk of girl juvenile offenders turning into hardcore criminals. To equip the girl juvenile offender with livelihood skills. To reduce congestion in prisons.	n.a.	2 girls hostels constructed: 1 at Mpeemba and 1 at Chilwa.	The project targets 60 girls (30 in each centre) who reside in the hostels and have access to the reformation services.

Child Development	Junior farmer field and life schools (JFLS)	WFP UNHCR UNICEF Ministry of Education Ministry of Agriculture Ministry of Gender Ministry of Child Development	2006-2009	To empower vulnerable teenagers both girls and boys from 12 to 20 years old with agricultural life skills	to ensure improved livelihoods and the long-term food and nutrition security of their households.	3 years	40 JFLS in Malawi in: Mchinji, Lilongwe, Machinga, Ntcheu and Mangochi	vulnerable teenage girls and boys (12 to 20 year-olds) Number of reached Children (equal proportion of boys and girls)
Agri Development	Farm Input Subsidy Programme (FISP)	Ministry of Agriculture and Water Development	2005-2009	to enhance food self-sufficiency by increasing smallholder farmers' access to and use of improved agricultural inputs, thereby boosting the incomes of resource-poor farmers.	To improve food security situation in Malawi, through wider economic growth and poverty reduction, increased food availability and higher real wages	4 years	National level	smallholder farmers including: AIDS-affected households, child-headed households, elderly-headed households, and female-headed households, receive fertilisers for maize production, with further vouchers for improved maize seeds and for fertilisers for tobacco
Water and Education Development	WASH	Ministry of Education, Science & Technology with UNICEF	2006 pilot project 2007-2013	improving access to safe water, hygiene and sanitation in primary schools	Reduce disease burden among children and staff. Improve school attendance and retention. Improve gender balance in education. Improve attraction and retention of teachers. WASH a necessity for universal school feeding.	6 years	7 districts in rural Malawi initially, later scaled up at national level	pupils from primary schools

Agri Development	Agriculture Sector Wide Approach – Support Project (ASWAp-SP)	Ministry of Agriculture	2008-2016	to improve food security and nutrition, increase agricultural incomes and ensure sustainable use of natural resources.	strategy for supporting priority activities in the agricultural sector with a view to increase agricultural productivity and make Malawi a hunger free nation.	8 years	Agri areas	Agricultural Sector
Agri Development	Agriculture Sector wide Approach II (ASWAp-SP II) Project.	Ministry of Agriculture	2017-2020	ending extreme poverty and promoting shared prosperity in a sustainable manner	strategy for supporting priority activities in the agricultural sector with a view to increase agricultural productivity and make Malawi a hunger free nation.	3 years	13 selected districts , namely Chitipa, Mzimba, Kasungu, Mchinji, Ntchisi, Lilongwe, Dedza, Ntcheu, Zomba, Phalombe , Mulanje and Thyolo from 2017 to 2020.	farmers
Agri Development	SAAP	Ministry of Agriculture	2012-2021	to contribute to poverty reduction and improved food security among the rural population	the program's main emphasis is to enhance agricultural productivity to help bridge the considerable disparity between actual and potential crop yields. encourage the development and refinement of the existing technologies and practices with the intent of modifying them to suit the farmers' conditions and promote them for adoption.	9 years	Chitipa District Lilongwe District Nkhosakota District Balaka District Blantyre District Chiradzulu District	farmers
Agri Development	Smallholder Irrigation and Value Addition Project (SIVAP)	Ministry of Agriculture	2013-2018	To contribute to food security ,increased income levels, and poverty reduction.	to increase agricultural productivity through intensification of irrigation, crop diversification, value addition, and capacity building.	5 years	Karonga District - rain fed and irrigation Nkhosakota District - rain fed and irrigation Salima District - rain fed and irrigation Machinga District - rain fed and irrigation Thyolo District (greenbelt zone) - agricultural investments Chikwawa (greenbelt zone) - agricultural investments Nsanje (greenbelt zone) - agricultural investments.	farmers

Livelihood-based social support projects	Enhancing livelihoods and food and nutrition security in the vulnerable SACU countries	MSH, Connect Hope, ADRA, ADECOM, CPAR, Ministry of Agriculture and Food Security, Ministry of Irrigation and Water Development, WFP, UNICEF, UNEP, D	2006-2007	to improve resilience of vulnerable households.	To increase and intensify agricultural production/productivity and diversity	1 year	Mchinji, Phalombe, Mangochi, Ntcheu, Longwe, Mkhotsakota, Salima, Mwanza, Mtoni	Vulnerable households
Livelihood-based social support projects	Sustainable nutrition rehabilitation programme	Ministry of Women and Child Development through the districts of social welfare offices. Implemented by the Christian Health Association of Malawi	2007-2009	to improve resilience of vulnerable households.	To contribute to improved livelihood security of vulnerable rural households in Malawi by enhancing their food and nutrition status in a sustainable and rights-based development approach. To facilitate community institutions, promote dietary, and crop and livestock diversification at both household and community level. To enhance appropriate mother and childcare practices in the communities. To promote community-based treatment of malnutrition To provide rights-based capacity-building process.	2 years	Karonga, Mumpi, Salima, Dedza, Mangochi	Households with malnourished children, orphans, vulnerable mothers

CHAPTER III: ASSESSING THE IMPACT OF SOCIAL SAFETY NET PROGRAMS IN MALAWI

INTRODUCTION

The previous chapters have provided a social and economic overview of the major safety net policies, addressed to sustain the most vulnerable people, with focus on children school attendance. The third chapter of the thesis develops an empirical evaluation of some Malawian social programs that took place after 2004. In particular we focus on the School Feeding and Mary's Meals programs, estimating the impact of those policies on children school attendance.

The chapter first provides a survey of the literature about program evaluation in Malawi, and then proceeds by explaining the research questions and objectives and describing the sources and characteristics of the data used for the analysis. We subsequently illustrate the structure and the results of the policy evaluation exercise. Some policy recommendations and general conclusions are finally provided.

1. A LITERATURE REVIEW OF SOCIAL SAFETY NET EVALUATION IN MALAWI

Already in 2001 Smith dedicated a study, looking at the general question of affordability of safety net programs in low-income countries, such as Malawi. In countries where the large proportion of the population is poor, and incomes are around the minimum subsistence, growth is not likely to be

rapid enough, to reduce the number of poor people. Moreover, a social policy implementation meets several obstacles, such as weak data base, limited administrative capacity, etc., and Smith suggests, in this situation, to use only some safety net programs, such as public work, nationwide nutrition program, transfers to orphans and only selected cash transfers.

After the advent of the SCTP in Malawi in 2006, this program has received a lot of attention, because of the very poor condition of the country where the policy has been applied (see Table 15 in Appendix C for a comprehensive list of works). As the program started and expanded at district level, all the evaluations are conducted on specific districts⁴⁰ of the country.

Miller et al. (2008) provided the first evaluation of SCTP, immediately after the pilot project implementation in the Mchinji region in 2005, and then then reiterated this study in 2010 and 2011. These studies highlight limitations observed in the targeting and approvals phases of the program. Several households, falling in the eligible areas, were kept out of the program. The community-based selection process can be influenced, leaving room for political interferences. The lack of a proper census system makes difficult to identify households in the villages and their economic and demographic characteristics. Yet, according to the authors, among the several cash transfer programs across sub Saharan Africa countries, the

⁴⁰ 18 over 28 in 2016 as per end line evaluation.

SCTP has been one of the most successful ever implemented in very poor conditions. Despite all the shortcomings of the households' selection process, the program reached on the whole the poorest people very in the district, seriously contributing to reduce intergenerational poverty. The roughly 14 USD provided per month made a big difference in the life of these ultra-poor people, with direct impacts on child education and health, improving food security and living conditions.

Baird et al. (2010) focused on the policy impact on teen girls' issues (such as early marriages and pregnancy). Their analysis shows that the diffusion of the cash transfer in the Zomba district, conditional on satisfactory school attendance, provided incentives to girls to avoid school dropout and return to school. With only 10 USD per month, it was possible to reduce early marriages, with potential declination of teen pregnancies by 30%-40%, as well as teen sexual activities. On the other hand, progress in school grades after the transfer program, is not very impressive.

In 2014 and 2016, the University of North Carolina, together with FAO, conducted another impact evaluation of the SCTP in the two districts of Salima and Mangochi. Once again, there are positive results in terms of increased school enrolment rates, but not positive effects on school grades. Particularly, enrolment in the secondary school is higher after the implementation of the policy. Girls tend to drop the school earlier, usually at the secondary stage, mainly due to early marriage and teen pregnancy.

Also note that the size of the transfer appeared low, comparing to other cash transfer programs in the African region. (Table 16 below provides a comparison).

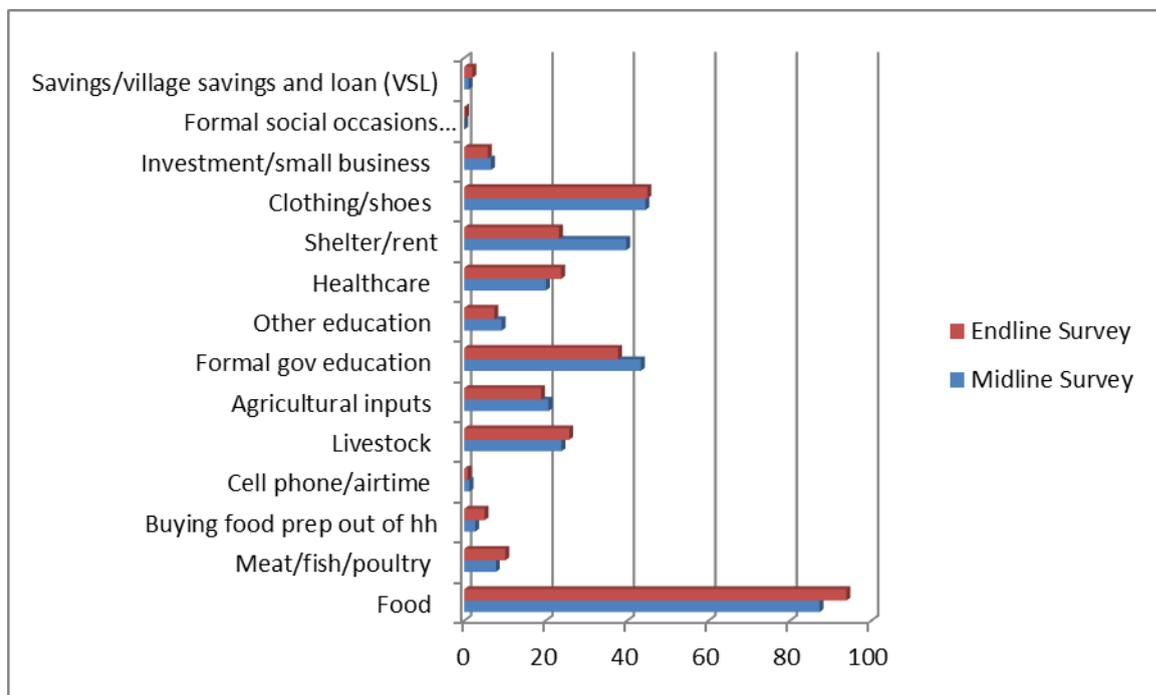
TABLE 15 CASH TRANSFER AMOUNTS IN USD IN SUB SAHARAN AFRICAN COUNTRIES (2016-2017).

Cash transfer program	Botswana	Ghana	Kenya	Malawi	Nigeria	Uganda
Commencement years	1996	2008	2004	2006	2007	2010
cash transfer per month in US\$	31	12,30/23	22	14	33	10
Target Group	Old age, disability, unemployed, chronically poor people	Extremely poor households	Orphan and vulnerable children, Elderly, and People with severe disability	ultra poor and labour constrained	Children, Elderly, PWSD, unemployed, single parent women	Elderly and vulnerable households
Coverage at district/country level	Nationwide	144/216	Nationwide	18/28*	113/774	34/112
Beneficiaries HHs (2016)	n.a	144,000	450,000	163,000	113,000	95,000

Source for all the countries, except Malawi: Awortwi and Aiyede (2017). Malawian data are from Tskoka et al. (2016).

Finally, Tskoka et al. (2016) report that the largest component of consumption affected by the program is food with 87.3%, followed by clothing with 44.5%, and by formal government-provided education (a close third with 37.5%). See Figure 33 below for more details.

FIGURE 33 HOUSEHOLDS DISTRIBUTION OF SPECIFIC USE OF SCTP AMOUNT (2016).



Source: Tskoka et al. (2016).

Summing up, all counterfactual studies point to a positive effect of SCTP. However, their eminently local nature makes them liable to some reservations relating to their actual explanatory power across the country. In other words, there is a problem of external validation for these studies. Another salient feature of the literature on Malawi is that it does not include counterfactual studies about in-kind programs. In this chapter we try to remedy these two shortcomings of the literature, by relying on data from the LSMS database of the World Bank.

2. STRUCTURE AND OBJECTIVES OF THE CURRENT RESEARCH

In recent years, Malawi has implemented several safety net programs, distinguished between in-kind (food-based) and cash-based programs. All

of them were addressed to support the most vulnerable people in the country. However, some of them, such as the SCTP (decisively stepped up in 2006), the School Feeding Program (SFP) and the Mary's Meals Program (MMP), both implemented at country level between 2006 and 2009, have the specific purpose of increasing the school attendance of the most vulnerable Malawian children.

Keeping this in mind, what we want to do is first of all to assess whether the set of policies (among which the SCTP is of foremost importance) recently aimed at children from ultra-poor families affected their school attendance. Secondly, our data allow us to zoom in on the impact of SFP and MMP, the most important in-kind programs, on primary school attendance.

As already mentioned in the first chapter, a policy evaluation exercise is a technique adopted to estimate the actual impact of a policy. All the program evaluations conducted in Malawi, as listed in Table 15 of Appendix B, have used an experimental design, which includes data collection in the field. In this chapter, we choose the alternative course to use a repeated cross-section dataset provided by the Living Standard Measurement Studies (LSMS) of the World Bank, to analyze the impact of some major Malawian social safety net policies on school attendance. We implement various forms of difference-in-differences estimation on these micro data, available for the whole country, and select 2004 as a pre-policy year (survey data are available for 2004, 2010, 2013 and 2016). This approach is not likely to

provide a neat identification of policies as in the case of experimental-design studies, but its evidence can be usefully compared with that from the previous studies, as is likely to suffer less from external validation problems.

The objectives of the analysis can be spelled out through two main research questions.

1. The first is “*Do social safety net policies work in Malawi?*” The question refers to the impact of the Malawi social safety net policies (which underwent a decisive stepping up with the implementation of SCTP in 2006) on primary school attendance. The treated group is young people (from 6 to 26 years of age) belonging to ultra-poor families (defined as being within the lowest income quintile, having no assets, or consuming only one meal per day and being labor-constrained (that is, with a dependency ratio undefined or higher than three; Miller et al., 2010). The control group is constituted by individuals not belonging to ultra-poor families, but of the same age group, gender, health, family size, and territorial area (district) of the treated.
2. The second research question is “*Do SFP and MMP work in Malawi?*” The question refers to the impact of the SFP and MMP programs on school attendance of children from 6 to 13 years old. The treated group includes children from this age group that live in

the districts where these policies have been adopted. The control group includes children of the same age group living in untreated districts. A further articulation of this research question is “*Are there negative or positive spillovers between the effects of SFP and MMP?*”

Notice that in principle one could analyze SCTP along the same lines of SFP and MMP. However, the number of social cash transfer recipients in our data set is very low. Still more seriously, even if social cash transfer programs have been unevenly introduced across districts (just as SFP and MMP), our dataset has some potential inconsistencies. Some districts that should be in principle treated do not contain information on social cash transfer recipients, while the latter show up in districts that should not be treated according to official sources. Subsequently we limited our specific focus to SFP and MMP.

3. THE DATA-SET: INSTITUTIONAL DETAILS AND SAMPLE DESIGN

The data used for the analysis are from the LSMS database of the World Bank. One of the specialties of the Bank is to collect data in the field and provide them freely for research purposes. Among the different countries where the Bank conducts the surveys, Malawi has been selected, because of its social policy programs, poor conditions of the country, its aim to reduce its poverty level, and the long-time application safety policy nets.

Integrated Households Surveys in Malawi are set up to monitor the development and changing living conditions of the Malawian households. The surveys are conducted every five years with the support of the Malawi National Statistical Office, also to provide benchmarks indicators for poverty and vulnerability, and eventually to foster specific policy formulations to improve the households living conditions.

The first Integrated Households' Survey in Malawi (IHS1) was set up in 1997. After that several other surveys have followed, such as the IHS2 in 2004, IHS3 in 2010, IHPS in 2013 and IHS4 in 2016. Moreover, both main policies used to stimulate school attendance, social cash transfer and school feeding programs, were set up respectively between 2006 and 2009. Thus, we have used the IHS2-2004 survey as baseline dataset, while the IHS3-2010, IHPS-2013 and IHS4-2016 as follow up sets. The 1997 data from the first HIS have not been used in this thesis as they are not readily available from the LSMS database of the World Bank.

The IHS2-2004 study (containing data for 11,280 households) provides a complete and integrated data set to better understand target groups of households affected by poverty. It also contains information on households' behavior and welfare, distribution of income, employment, health and education, useful for applications on policy issues.

The IHS3-2010 is independent from the previous surveys and also provides a baseline for the panel subsample follow-ups in 2013 (IHPS) and in 2016

(IHS4). Generally speaking, the study covers several aspects of the population within a period of 12 months. It includes 12,271 households. It takes information and cartography from the 2008 Malawi Population and Housing Census (PHC). The urban area includes the four bigger cities of Lilongwe, Blantyre, Mzuzu, and the Municipality of Zomba. All other areas are rural. The island district of Likoma is not included, due to the relative lack of population and the high operational costs⁴¹. Finally, the IHS4-2016, regarding 12,447 households, was implemented from April 2016 to April 2017. It also represents the follow up survey from the IHPS-2013.

All the four surveys (IHS2-2004, IHS3-2010, IHPS-2013 and IHS4-2016) report information on household details (such as education, family composition, health status, safety net program participation, etc.) and community characteristics. The IHS3-2010, IHPS-2013 and IHS4-2016 were completed with information from the Agricultural questionnaire⁴², which are missing in 2004. However, we use only the household-related information.

Each part of the surveys is divided in modules, and each module⁴³ reports specific information, about several topics, such as economic activities,

⁴¹ Population living in institutions, such as hospitals, prisons and military barracks are also out of the survey.

⁴² The Agricultural questionnaire provides information on land areas, cultivated or not, labor and no labor inputs, expenditures and productions figures for main crops and livestock.

⁴³ The modules were developed in extensive consultations with a wide set of stakeholders, including: The World Bank LSMS Team, Statistics Norway, the UK Department for International

demographics, welfare and other sectorial information of households, consumption, cash and non-cash income, savings, assets, food security, health and education, vulnerability and social protection. For the analysis we consider the Module A, B, C, D, H, L, R and the consumption aggregated (see Table 17 below). It is possible to disaggregate the data by gender, age, area, etc., according to the research needs.

TABLE 16 SELECTED VARIABLES FROM THE FOUR DIFFERENT SURVEYS, USED FOR ANALYSIS PURPOSE.

2004 (IHS2)			2010 (IHS3)			2013 (IHPS)			2016 (IHS4)		
Module	Renamed	Description	Module	Renamed	Description	Module	Renamed	Description	Module	Renamed	Description
sec_a	A	Household identification	hh_mod_a	A	Household identification	hh_mod_a	A	Household identification	hh_mod_a	A	Household identification
sec_b	B	Household roster	hh_mod_b	B	Household roster	hh_mod_b	B	Household roster	hh_mod_b	B	Household roster
sec_c	C	Education	hh_mod_c	C	Education	hh_mod_c	C	Education	hh_mod_c	C	Education
sec_d	D	Health	hh_mod_d	D	Health	hh_mod_d	D	Health	hh_mod_d	D	Health
sec_h	H	Consumption of selected food over past three days	hh_mod_H	H	Food Security	hh_mod_H	H	Food Security	hh_mod_H	H	Food Security
sec_g	F	Housing									
sec_l	L	Non-Food Expenditures	hh_mod_l	L	Durable goods	hh_mod_l	L	Durable goods	hh_mod_l	L	Durable goods
sec_y	R	Safety nets	hh_mod_r	R	Safety net	hh_mod_r	R	Safety net	hh_mod_r	R	Safety net
sec_z1	Z1	Credit info									
sec_z2	Z2	Credit info									
lhs2_pov + lhs2_individ	pov	Consumption Aggregate	Round 1	pov	Consumption Aggregate	Round 2	pov	Consumption Aggregate	lhs4 Consumption Aggregate	pov	Consumption Aggregate

Source: Own elaboration from IHS2, IHS3, IHPS, IHS4 surveys.

4. THE EMPIRICAL SET-UP

Our approach to the impact evaluation of the different cash-based and food-based programs on schooling attendance in Malawi, relies on difference-in-

Development (DFID), the Food and Agriculture Organization of the United Nations (FAO), the World Food Programme (WFP), the Millennium Challenge Corporation – Malawi Account (MCC-MA), the Department of Forestry, the Department of National Accounts, and the World Fish Center (WFC).

differences estimation (see e.g. Imbens and Wooldridge, 2009 and Cerulli, 2015). The basic set-up is the following:

$$Y_{it} = Treated_i + Post_t + Treated \times Post_{it} + f(X_{it}) + \varepsilon_{it}$$

where Y_{it} , the outcome variable, is a binary variable for school attendance. It takes value equal to one for attending school and equal to zero for not attending school. Given the nature of this dependent variable, estimation is carried out with a probit regression model, and in the subsequent analysis we shall only present the marginal effects of the estimated equation.

$Treated_i$ is a binary variable equal to one for treated units and equal to zero for untreated units. It captures all time-invariant differences between treated and untreated units. $Post_t$ is, in principle, a binary variable equal to one after treatment implementation and equal to zero before treatment implementation. It captures all systematic differences (affecting all units) before and after policy implementation. In actual practice, it is often convenient to substitute it with a set of time-related dummies, and this is what we actually do in our empirical analysis. Variable $Treated \times Post_{it}$ is the crucial term in difference-in-differences analysis. It is often labeled as the difference-in-differences term (DiD_{it}), and this is what we will do subsequently. It captures the difference in outcome brought about by policy implementation between treated and untreated units (the average change over time in the outcome variable for the treatment group, compared to the average change over time for the control group). Finally, X_{it} is a vector of

individual-related characteristics, which controls for observable heterogeneities across time and units, and ε_{it} is the customary i.i.d. disturbance term. In a proper panel set-up, which is not the present case, X_{it} could also include individual fixed effects and the *Treated_i* variable would be superfluous.

It is now convenient to proceed by diversifying our basic set-up according to the main research question that is addressed.

4.1 DO SOCIAL SAFETY NET POLICIES WORK IN MALAWI?

The first research question analyses the impact of the Malawi social safety net policies applied to young people living in ultra-poor families. By looking at the different policies implemented in the country, we see that the SCTP has been instituted in 2006. We do not have reliable information on youth directly treated by SCTP, but we can infer treatment from the eligibility conditions. Thus, we select youth from ultra-poor families as the treated group, and consider 2004 (with its IHS2 survey), as our pre-policy period, while the following 2010, 2013 and 2016 surveys provide in principle the data for the post-policy period.

However, IHS4-2016 does not include all the statistical information needed to select ultra-poor families. The 2016 data shall then be excluded from the analysis concerning the first research question.

Our baseline equation thus becomes:

$$(1.1) Y_{it} = Treated_i + D_{2010} + D_{2013} + DiD_{it} + f(X_{it}) + \varepsilon_{it}$$

Where $Treated_i$ includes all the young people from the (potentially) treated ultra-poor families, D_{2010} and D_{2013} are year dummies, and DiD_{it} interacts $Treated_i$ with time after 2004. Notice that here we are interested in school attendance of people with a schooling age, from 6 to 26 years old. We consider this very large range of age to have a larger sample for the treated, and because our policy of interest focuses more on a particular target (the ultra-poor) rather than on a particular behavior (e.g. primary school attendance). Eq. (1.1) includes control variables for age, gender, district, family size and health status, and is estimated on all districts.

The analysis can then proceed by making various robustness checks. In order to corroborate evidence about a treatment that is only inferred from the eligibility conditions, eq. (1.2) will be estimated by splitting the difference-in-differences term across the two treatment years (2010 and 2013). Then eqs. (1.1) and (1.2) will be replicated as eqs. (1.3) and (1.4), which have exactly the same structure of their homologues, but whose estimation sample excludes the three districts that were receiving the SFP already in 2004, that is Salima, Dedza and Ntcheu (including them in the analysis potentially leads to a bias).

Finally, eqs. (1.5) and (1.6) replicate the specifications and the sample from (1.1) and (1.2), but for a different definition of the $Treated_i$ that are here all people living in poor families (defined through the food poverty line ascertained from IHS2-2004 onwards) and of the control group, which is in

this case constituted by the rest of the population minus the people living in ultra-poor families. This is actually a falsification exercise: in this “placebo” analysis we do not expect any significant policy effect, as the chosen target group were not supposed to be treated in this case.

4.2 WHAT ABOUT SCHOOL FEEDING AND MARY’S MEALS PROGRAMS IN MALAWI? DO THEY WORK? ARE THEY COMPLEMENTARY?

The second analysis looks at the two in-kind programs of SFP and MMP in order to assess the effectiveness of their use.

By looking at the implementation times of SFP and MMP, we see that their diffusion across Malawi took place, by and large, between 2006 and 2009. Hence here too we can consider 2004 (with its IHS2 survey), as our pre-policy period, while the following 2010, 2013 and 2016 surveys provide the data for the post-policy period. In this case, however, there is no reason to exclude from the analysis the 2016 data.

Our baseline equation thus becomes:

$$(2.x) Y_{it} = Treated_i + D_{2010} + D_{2013} + D_{2016} + DiD_{it} + f(X_{it}) + \varepsilon_{it}$$

Where $Treated_i$ includes all the children from 6 to 13 years of age living in the districts that are included in the SFP and/or MMP target areas (more on the definition of the target areas will be said below), D_{2010} , D_{2013} and D_{2016} are year dummies, and DiD_{it} interacts $Treated_i$ with the years after 2004. Notice that now we are interested in primary school attendance and focus on youth 6 to 13 years old. Furthermore, and naturally, we exclude now

immediately from the estimation sample the three districts that were receiving the SFP already in 2004, that is Salima, Dedza and Ntcheu. On the other hand, eq. (2.x) includes control variables for age, gender, district, family size and health status, much as before.

A key feature of this second analysis is that the target area can take different meaning according to whether we take SFP and MMP in isolation or jointly.

More in detail, five scenarios can be considered for the target area:

Scenario 1) districts only receiving SFP (this scenario yields eq. 2.1).

Scenario 2) districts only receiving MMP (yielding eq. 2.2).

Scenario 3) districts receiving either SFP or MMP (yielding eq. 2.3).

Scenario 4) districts receiving SFP and MMP either alone or jointly (yielding eq. 2.4).

Scenario 5) districts jointly receiving SFP and MMP (yield eq. 2.5).

In all five scenarios, the control area does not receive either SFP or MMP.

In this second analysis, in order to assess the potentially confounding effect of unobserved factors, we ran a falsification test exercise on all the previously described scenarios (eqq. 2.1-2.5). The above described specifications were estimated again but defining as *Treated* i the children from 14 to 26 years of age living in the districts that are included in the SFP and/or MMP target areas. In this “placebo” analysis (which gives rise to eqq. 2.1’-2.5’) we do not expect any significant policy effect, as the chosen outcome should be unaffected by the treatment in this case.

5. THE RESULTS

We sum up the main results of the empirical analysis in Appendix D.

The first part of the analysis (reported in Table 18 of Appendix D) indicates a significant positive impact of the safety net policies on school attendance. Eq. 1.1 shows a good marginal effect for the DiD term (0.07). This suggests that the policies implemented after 2004 in the country, and addressed to sustain the most vulnerable, reduced the difference in probability of attending school between the two treated and the untreated groups of about seven percentage points. **When splitting the DiD term across the two available years (2010 and 2013) the policy implications are basically untouched: there is a stable improvement of the status of the treated relatively to the untreated (as vouched by the highly significant value of the Wald joint test of significance about the DiD-2010 and DiD-2013 terms).**

Results from eqq. (1.3) and (1.4), where the Salima, Dedza and Ntcheu districts (already receiving the SFP in 2004) tell the same story very much, also in quantitative terms. The falsification exercise carried out through (1.5) and (1.6) goes in the same direction. Excluding the ultra-poor families from the sample (which were the actual target of the social safety net policies), the school attendance status of the poor does not improve vis-à-vis that of the non-poor in the period under scrutiny.

All in all, we believe that there is evidence in favor of a positive effect of social safety net policies on the school attendance of the ultra-poor. We

recall that the SCTP is paramount among these policies. A final corroborating point about the evidence obtained in the first part of the analysis is that the time-invariant difference between treatment and control group shows a highly significant gap penalizing the treated group, which is higher when considering the ultra-poor (minus thirteen or twelve percentage points versus ten).

The second part of the analysis is summed in Tables 19 and 20 of Appendix D. Let us focus on Table 19 first. It will be recalled that here we focused on the impact of the two major in-kind programs present in the country: School Feeding and Mary's Meals. We have considered children aged from 6 to 13 years old and assessed the impact of the two in-kind policies on their primary school attendance in five different scenarios. Our control units are always children living in districts where neither SFP nor MMP exist.

In the first scenario (eq. 2.1), treated children are living in districts where only SFP exists. With the policy, the marginal effect of the SFP is 0.09 and highly significant, meaning that the existence of this policy in a district makes a sizeable difference on primary school attendance. In the second scenario (eq. 2.2), treated children are living in districts where only MMP exists. The policy marginal effect is in this case too positive and significant, but much less high (0.04). MMP alone is effective but makes less of a difference. Possibly MMP is less effective because it does not provide the Take Home Ration, as is instead done by SFP. Not surprisingly, focusing on

a third scenario (eq. 2.3) where treated children are living in districts where either SFP or MMP exists, the policy effects on primary school attendance (0.05) stand in between those from the previous two cases.

It could now be asked whether there are positive or negative spillovers across the two in-kind transfers, and the evidence leans to the second side. Eq (2.5) show the results when treated children are living in districts where both SFP and MMP exist, and in this case policy effects are negative and insignificant. An intermediate case between this scenario and the previous ones was considered in (2.4), where treated children are living in districts receiving SFP and MMP either alone or jointly. According to the estimates of (2.4), policy effects are still positive, but insignificant. This evidence suggests that duplicating major in-kind programs in the same district is not very productive, but more evidence is needed on this. In particular, more research on the selection process of MMP may be needed.

Finally, Eqq. (2.1'-2.5') from Table 20 present some "placebo" tests for the specifications considered in Table 19. We carried out a falsification test exercise running all the above described specifications but defining as *Treated* i the children from 14 to 26 years of age living in the districts that are included in the SFP and/or MMP target areas. In this "placebo" analysis we do not expect any significant policy effect, and this is what we actually find throughout Table 20.

6. CONCLUDING REMARKS

This chapter provides two different empirical analyses. The first examines the impact of all Malawian social safety net programs, addressed to ultra-poor people aged from 6 to 26, considered being in schooling age, and exploring whether the social policies effectively improve schooling attendance for their beneficiaries. The second analysis looks at the impacts of School Feeding and Mary's Meals, the major in-kind programs in the country, addressed to increase primary school attendance. Here we consider children from 6 to 13 years of age.

The data used for the first analysis cover the three periods 2004, 2010, 2013, while the second analysis include also the data from 2016. In the difference-in-differences analysis that has been adopted, the 2004 data are the pre-policy period, while 2010, 2013 and 2016 are all post-policy. In both cases we find significant policy effects.

From the first part of the analysis, it turns out that social safety net policies as a whole, implemented in Malawi after 2004 (the Social Cash Transfer Program is paramount among them) have a positive impact on school attendance, which is rather stable through time and is robust vis-à-vis some falsification exercises.

The second part of the analysis searches for SFP and MMP impacts, looking at their effectiveness in the country and at their complementarity. If we compare districts receiving only SFP or only MMP with a control group receiving no policy, we can observe that both policies are useful on their own right. Yet, if both policies operate in the same district, they turn out to be useless. In this second part too, we run some falsification tests, which corroborate the previously evidence.

Our results confirm and usefully complement the previously available evidence from the literature, which was linked to the experimental case studies, and thus presented problems of external validation. By analyzing the social safety net policies of Malawi, we can conclude by saying that all social policies addressed to sustain the most vulnerable, either in cash or in-kind had positive effects on the beneficiaries in Malawi. Moreover, if those programs are properly managed and implemented, they can contribute to achieve the poverty reduction target. Probably duplicating major in-kind programs in the same district is not very productive, but more evidence is needed on this.

APPENDIX C

TABLE 17 SUMMARY OF STUDIES OF THE SCTP FOR MALAWI FROM 2001 UNTIL 2018.

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
Smith, 2001	1997-2000	The paper looks at the general question of affordability of safety net programs in low income countries, such as Malawi. The paper analyses the cost-effectiveness of existing programs in depth.	IHS1-1997	Difference in averages between treatment and control groups	<ol style="list-style-type: none"> 1. A large proportion of the population are absolutely poor; with incomes around the subsistence minimum. 2. Growth is not likely to be rapid enough, to reduce the number of poor. 3. With such a large share of the population in poverty, it is not clear the rule of a safety net program. 4. The database is weak, making it difficult to identify and target the poorest; 5. There is limited administrative capacity, 6. There is no formal safety net program, and the paper recommends using some. Such as public work, nationwide nutrition program, transfers for orphans and selected cash

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
					transfers.
Miller et al., 2008.	2006-2008	The Targeting Evaluation is one of three reports that comprises the External Evaluation of the Mchinji Social Cash Transfer Scheme. The main objective of this report is to examine the targeting method used to identify and approve cash transfer recipients and the outcomes of the approach, to understand the effectiveness of the methodology .	IHS2-2003.	The evaluation utilizes mixed methods and multiple datasets, to analyse and describe the strengths and weaknesses of the implementation of the scheme to date.	The evaluation reports: Better children health, lower children labour, higher quality food in beneficiaries hhs, and improved housing conditions. Also, the evaluation provides few suggestions regarding the expansion of the policy across the country. 1. Correct beneficiaries' selection, with a better transparency in the selection process, to avoid corruption. 2. Poverty level in each district should be estimated using national data or existing poverty maps and then confirmed with empirical evidence collected during household listings in each district. 3. Next survey should be conducted door-to-door household listings, to

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
					capture basic economic and demographic data from all households. 4. The concepts of ultra-poverty and labour constrained must be better defined. 5. Throughout the Districts, all stakeholders, including extension workers, village leaders and others, must be mobilized to actively participate in the SCTS, in order to improve the quality of targeting.
Baird et al., 2010.	2007-2009	To demonstrate that the diffusion of the cash transfer in Zomba area (district of Malawi), conditional on satisfactory school attendance, and express in the form of school fees and cash transfers, (directly transferred to schools by NGOs),	Zomba District in the southern region. 176 EAs was randomly divided into two groups of treatment and control. The sample of 88 treatment EAs was further divided into two arms	A simple regression models.	With only 10USD per month, it is possible to decline early marriages, with potential declination of teen pregnancies by 30%-40%, as well as teen sexual activities. The conditionality in the cash transfer program increases children school performance but does not improve other teen issues. Early marriage and teen

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
		provides incentives to girls to avoid school dropout and return to school. The conditionality in the cash transfer program can increase children school performance.	based on the treatment status of baseline schoolgirls: (i) CCT arm (46 EAs), and (ii) UCT arm (27 EAs). In the remaining 15 treatment EAs, no baseline schoolgirls were made offers to receive cash transfers.		pregnancies are more affected by unconditional cash transfer than conditional.
Miller et al., 2010.	2007-2008	Describe the impact of approximately USD14 per month on food security among recipient households compared to control households. The evaluation is made only for the pilot region of Mchinji.	1. A collected baseline survey in March 2007, 2. A midline survey in September 2007 (6 months after intervention, households received their first cash payment), 3. An endline survey in	A difference-in-differences estimates, using regression models.	1. Improved food security and diversity, and immediate reduction of starvation. 2. Cash improves access to food in poor households. 3. Weekly total expenditures increased, on average, by 15% in comparison households. 4. Total food expenditures increased by almost 8% in comparison households. 5. Food consumption gains in the

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
			April 2008.		consumption of complex proteins among intervention households. 6. Dietary diversity also improves.
Tskoka et al., 2014.	2013-2014	The study focus the attention on the SCTP policy evaluation in two Traditional Authorities: (TA) in Salima and Mangochi districts. Displaying impact on poverty and food security, child and adult health, livelihoods and economic activity, and adolescent welfare and development	The study created a baseline and follow up rounds for collecting data. Survey includes the quantitative sample size of 3,531 households and 16,078 individuals from two Traditional Authorities (TA) each in Salima and Mangochi districts. Also includes the qualitative sample of 16 treatment households, four households in	Selection process is randomized through coin tosses, held in Salima and Mangochi to assign Village Clusters into immediate entry treatment and delayed-entry control groups. The coin tosses resulted in 48% of sample households in the treatment group and the remainder in the control group. Baseline data collection was conducted to allow the study team to accurately describe	1. Randomization was successful. 2. Poverty rate is in the middle range. However, targeting performance can improve. 3. Over half the sample engages in ganyu labour and 23 percent have a non-farm enterprise. 4. Rates of sexual debut are higher. 5. Nearly 80 percent of children ages 3-5 are enrolled in pre-school. 6. Health status is quite low among older residents in SCTP household. 7. Disability: Overall 23 percent of those aged 10+ had some limitation in any of the five domains with the two most common domains being 'seeing' and 'climbing/walking'

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
			each study TA.	characteristics of Beneficiary households before receiving any cash transfers. This data are then compared to data Collected in the follow-up rounds using a difference-in-differences (DD) approach to assess the full impact of the cash transfer program.	g'. 8. Safety Net: 70 percent of SCTP households receive formal assistance from government or other agencies, with the most important program being the FISP*** ⁴⁴ (54 percent) followed by free maize (16 percent) and school feeding (15 percent). 9. Migration was cited as an important avenue to escape ultra-poverty, and the FISP an important government program that increased economic mobility. 10. Low transfer size comparing to another social program in other African region.
Asfaw et al., 2015.	2013	This report is a complement study to the Malawi Social Cash Transfer Programme Baseline	Survey IHS3 (2010-2011) Using data covering demography and	Statistical differences between treatment and control groups	The report found randomization of households into treatment and control groups to be successful, on the basis of high similarity between the two

⁴⁴ *** FISP stands for Farms Inputs Subsidies Program.

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
		<p>Evaluation Report, released by the Carolina Population Centre at the University of North Carolina at Chapel Hill. (2014). The report has documented various indicators in the baseline, notably across treatment and control groups. (Is the counterfactual credible? targeting of the households performed effectively?)</p> <p>.</p> <p>This report also serves as a baseline for the productive impact of the Malawi SCTP. It provides program evaluation design and data collection methods; it focuses on documenting characteristics of sample households and descriptive statistics.</p>	<p>household composition, food and total expenditures, work, education, health, housing characteristics, possession of assets and durable goods, recent mortality, chronic illness and other shocks, savings and use of social services.</p>		<p>groups across the documented indicators. The targeting performance is well within the range found internationally, although there is certainly room for improvement. The data used are of good quality, with almost perfect response rates and key indicators matching up well with those from other data collection exercises.</p>

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
Tskoka et al., 2016.	2014-2015	<p>This report describes the impacts of the programme on individuals, households, and communities, 28 months after baseline data was collected. At the time of endline, most beneficiaries had received 12 payment instalments (equalling approximately 24 months of transfers) so results can be interpreted as two-year impacts of the programme on beneficiaries.</p> <p>Policy benefits to children anthropology, education and child labour, as well as general welfare, young and adult health and households'</p>	<p>3,531 SCTP-eligible households located in 29 VCs across four TAs in two districts of Salima and Mangochi. There are 14 VCs (1,678 households) in the treatment (T) group and 15 VCs (1,853 households) in the control (C) – or delayed-entry—group.</p> <p>Data was also collected at baseline on and 821 non-eligible households to enable FAO to build a local economy simulation model.</p>	<p>Midline and endline data has been compared to data collected at baseline using a difference-in-differences (DD) approach to assess the full impacts of the SCTP.</p>	<p>1. Education: School enrolment rates become very positive, especially for children aged between 6 and 17 years old, among bigger and poorer families. Enrolment in the secondary school is higher.</p> <p>2. Gender: Effect are not very significant. With a number of boys attending school still higher than girls.</p> <p>3. The unconditional of the program could lead to lower the impact on children education.</p> <p>4. Progression in school grade, after the transfer program, results not very impressive, due to the fact that several children attended school because of the transfer and not because of their diligence.</p> <p>5. Food consumption increases with 87.3%, clothing use with 44.5%,</p> <p>6. In general the program reaches the very poorest.</p>

Author(s)/Year of publication	Period covered	Topics investigated	Datasets	Methods	Results
		assets and production.			<p>7. Better psychological relief with positive attitude to life.</p> <p>8. Health conditions improved, education and school enrolment increased, and child work/labour decreased.</p>

APPENDIX D

TABLE 18 THE **DIFFERENCE-IN-DIFFERENCES ESTIMATES. SAFETY NET POLICIES AS A WHOLE**

□

	(1.1)	(1.2)	(1.3)	(1.4)	(1.5)	(1.6)
DiD	0.07		0.07		-0.01	
	(2.26)		(2.21)		(-0.99)	
DiD - 2010		0.07		0.10		0.01
		(1.80)		(2.32)		(0.43)
DiD - 2013		0.07		0.06		-0.02
		(1.88)		(1.59)		(-1.24)
Treated	-0.12	-0.12	-0.13	-0.13	-0.10	-0.10
	(-12.91)	(-12.91)	(-12.48)	(-12.48)	(-10.39)	(-10.39)
<i>N</i>	43,027	43,027	38,781	38,781	36,681	36,681
<i>Pseudo-R²</i>	0.2182	0.2198	0.2302	0.2302	0.2448	0.2449
<i>Wald Test: c2 (2)</i>		6.45		7.54		2.18

□

Legend: N is the number of observations, Pseudo-R² is a measure of fit customary for probit estimates. The Wald test jointly considers the marginal effects of DiD-2010 and DiD-2013. All other relevant information is provided in the text.

TABLE 19 THE DIFFERENCE-IN-DIFFERENCES ESTIMATES: SFP AND MMP – BASIC EVIDENCE

②	(2.1)	(2.2)	(2.3)	(2.4)	(2.5)
DiD	0.09	0.04	0.05	0.01	-0.01
	(4.19)	(2.61)	(3.51)	(1.00)	(0.73)
Treated	-0.09	-0.02	-0.03	-0.02	-0.02
	(-4.98)	(-2.05)	(-3.29)	(-2.81)	(-2.08)
<i>N</i>	8,810	16,548	18,160	29,714	18,752
<i>Pseudo-R²</i>	0.1533	0.1612	0.1622	0.1381	0.1264

②

Legend: N is the number of observations, Pseudo-R² is a measure of fit customary for probit estimates. All other relevant information is provided in the text.

TABLE 20 THE DIFFERENCE-IN-DIFFERENCES ESTIMATES. SFP AND MMP - FALSIFICATION EXERCISE

②

②	(2.1')	(2.2')	(2.3')	(2.4')	(2.5')
DiD	-0.00	-0.00	-0.03	-0.03	-0.05
	(-0.04)	(-0.13)	(-0.14)	(-1.38)	(-2.15)
Treated	-0.07	-0.07	-0.07	-0.05	-0.03
	(-2.37)	(-3.77)	(-3.93)	(-3.26)	(-2.13)
<i>N</i>	8,828	17,384	18,987	31,130	19,368
<i>Pseudo-R²</i>	0.3692	0.3760	0.3736	0.3599	0.3537

②

Legend: N is the number of observations, Pseudo-R² is a measure of fit customary for probit estimates. All other relevant information is provided in the text.

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