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Integrated Development: Best Practices for Girls' Education

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Abstract

Integrated development takes into consideration the multidimensional nature of every issue. This thesis focuses on the issue of girls' education and examines the many interconnected barriers which prevent girls from attending school specifically in the context of Niger, but also on a broader level. There must exist a supportive environment which enables girls to be able to access, attend and succeed in school, and this supportive environment must be created across sectors by addressing the many issues which prevent girls' schooling: cost, health, physical access, culture and tradition etc. Multi-level and multisectoral partnerships of local and international NGOs and the government are necessary in order to carry out such a large scale package of interventions. These kinds of partnerships can be very challenging, but bringing agencies and organizations together across sectors with a common goal can effectively address the multiple interconnected issues surrounding a development problem like girl's education. It takes these kinds of partnerships to develop a package of interventions which are fitted to the needs of the community and which integrate development across sectors thus creating a supportive environment for girls' education to thrive.

Key Words: Girls' Education, Integrated Development, Multisectoral Partnerships

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Introduction/Research Overview

The purpose of this thesis is to explore an integrative approach to development. Single strategy approaches to development seek to address a development problem from only one angle. I suggest in this paper that it is essential to view development issues not as isolated problems, but as interconnected problems that feed off each other. To do this, we must dissect each problem by analyzing the different sectors that also play a role in contributing to or perpetuating this problem and then implement strategies to address not only the core development problem, but also the interconnected factors that perpetuate it. To do this, we need a multi-sectoral approach involving multiple interventions, necessitating partnerships among diverse stakeholders.

I propose a synergistic approach to development, which I will identify in this paper as "integrated development": development that is complex, multi-dimensional and requiring action on multiple fronts. This term presupposes that no single strategy can bring about lasting positive change if it is not supported by development initiatives across other sectors. Integrated development efforts require consideration of every interrelated aspect of a development issue followed by proposing packages of interventions that address these issues in a complementary manner.

In this paper, I will focus explicitly on the issue of girl's education in Niger from an integrated development perspective, analyzing the interrelated causes across sectors. For example, building schools near girls might ease girls' access and attendance in schools, but if those girls still have to walk two miles to fetch water, the school-building intervention to increase access is then undermined by this opportunity cost, the time that girls will have to spend fetching water. Even if we manage to get girls in schools by reducing some of the opportunity costs to parents, there are still issues at the school level that must be considered.

For example, if teachers are giving preferential treatment to boys, then increasing girls' access to school in and of itself may not be enough, because the school environment is not girl friendly. Schools without latrine facilities, for example, discourage girls' attendance especially during their menstrual cycles. Dealing with access alone, without considering factors that encourage girls' retention and success in school, is insufficient.

There exist complex linkages and interactions within the system of overall development. Putting too much emphasis on one aspect of development and ignoring its linkages to other issues results in an imbalance and an inefficient process of development. I argue that in order for development to be efficient (functioning in the best possible manner with the least waste of time and effort) and effective (producing the intended or expected result), it must address the many interconnected aspects of the development problem at hand¹. Research clearly suggests that "addressing multiple concerns related to girls' education simultaneously in a coherent strategy can produce significant gains in relatively few years" (Aoki, et al., 2001, p.260).

This paper includes an in-depth analysis of girls' education in Niger and proposes a package of strategies which, if implemented across sectors, would have a positive impact on the ability of girls to obtain a quality education. Despite the many challenges that are inherent in such a multi-sectoral initiative, this paper will argue that, in the long-run, an integrated development strategy is the most cost effective, because it will produce durable, long-term results.

I chose Niger as the context for examining the development issue of girls' education because of my personal experience working in the education sector of Niger for over two years. I also selected Niger because its ranking as 174th out of 177 countries on the UN

¹ www.dictionary.com

human development index quantifies it as one of the least developed countries in the world. Its population is estimated at 13.9 million, of which 61% survive on less than \$1 a day (Unicef, 2007). Poor school enrollment, especially among girls, contributes to Niger's 78% illiteracy rate.

In the next section, I will describe the methodology used for this paper, followed by a discussion of "integrated development".

Methodology

This paper is a content analysis that examines the research on integrated development, specifically delving into the issue of girls' education in Niger. According to Leedy and Ormrod (2001), a content analysis is a "detailed and systematic examination of the contents of a particular body of material for the purpose of identifying patterns, themes, or biases" (p. 155). Through my analysis of the multiple problems surrounding the issue of girls' education, I identify the relationships between root causes and also how development strategies must overlap to address these problems.

I examined the literature and research on integrated development in every sense of the word: development that takes into consideration multiple strategies, multiple interventions, with multiple donors, involving multiple stakeholders across multiple sectors. The material came from policy briefs on best practices, project documents, and lessons learned that were pulled from project evaluations. During my examination of this research, I coded for information specifically related to integrative development approaches, as well as information on the interrelated nature of various obstacles and interventions related to girls' education. My analysis of this body of research led me to develop an integrated development framework through which I view the issue of girls' education in the context of Niger.

The central part of the paper analyzes the problem of girls' education in Niger and shows the interrelated nature of the many root causes of the problem. I then propose interconnected strategies to address the problem from an integrated development approach and show how the strategies cannot be effective unless implemented in tandem. The paper concludes with a critical analysis of the integrated development approach, including the

many challenges to successful implementation as well as some suggestions for overcoming these challenges.

Analysis of Integrated Development

The many factors affecting girls' access to and quality of education cannot be separated as they always accompany each other in real life. Not all problems affecting girls' education are "girls' problems" per se. Girls, however, are especially vulnerable to the effects of poverty, disease, lack of access to education and poor education quality. To reduce these barriers, we must focus on more than just the education sector and girls. Improvements across sectors, such as provision of better health care, clean accessible water, transportation, employment and labor-saving technologies all contribute to girls' ability to complete the primary cycle. These improvements also benefit their families and communities as a whole.

Mounting an intervention that targets every root cause that contributes to a problem is not an easy feat. It is expensive, and also requires an incredible amount of technical capacity as well as the support and cooperation of NGOs and government alike. However, implementing an intervention that would improve all of these factors at once is a much more sustainable solution than attacking the root causes in isolation. Due to the increasing pressure to achieve Education For All goals, governments of developing countries are realizing that they cannot achieve these goals single-handedly and as such, education ministries are increasingly willing to form partnerships with other sectors who can help make progress towards these goals (Howard, 2001).

In order to develop a feasible package of strategies, we must first determine which improvement strategies are complementary and which strategies are the so-called "gate-

keepers" for the success of the intervention. Although research indicates that the most successful approaches to girls' education involve multiple interventions modified to the local context, some interventions take precedence because they set the stage for others to be successful. In essence, this involves asking which strategies are so essential to the success of the package of interventions that omitting them would surely result in failure; and which strategies are beneficial but perhaps not absolutely essential at the start up?

This triage process must be done for every situation in every country, because "research shows that the most successful approaches to girls' education have involved multiple interventions tailored to a specific situation; some interventions take precedence because they lay the necessary groundwork for others to be successful" (Aoki 200:249). An ideal package of strategies to promote girls' education in Niger might not and probably will not be the ideal package of strategies for the same problem in Cambodia or Kenya. Interventions must be situated in the local context and based on the needs and situation of that area.

Integrated Development Analysis Process

The following three-step process lays out an integrated development analysis process that can be used to analyze the factors affecting girls' education:

- 1. Step one: comprehensively assess the factors that are preventing girls from attending school. This should be a participatory process with the community to determine what factors are preventing parents from sending their daughters to school.
- 2. Step two: determine which interventions might encourage parents to send girls to school. The idea is to fully assess the situation not only from a deficit perspective—

- why is this not working—but also from a social marketing perspective—what factors might bring about a positive change?
- 3. The final step is to determine what package of interventions would address the multiple needs of the community and which sectors should be involved. One might find, for example, that issues as far ranging as domestic work, finances, health issues or religious beliefs might affect a girl's ability to attend school. Understanding how these different issues interact can help development planners determine which sectors need to be involved in the package of interventions.

If a government decides that improving girls' education is a priority, they could use this integrated development analysis process to determine the gatekeeper issues that need to be immediately addressed. The framework would probably need to be carried out by local NGOs who are already working at the village level but under the direction of the government. Ideally, the government would form an advisory council made up of international NGOs working in the girls' education sector, government actors, and representatives of local NGOs. This council would then be in charge of deciding which agency, organization or government body has the resources, capacity, and willingness to manage each intervention proposed by the framework. Multisectoral partnerships are beneficial as they enable a sharing of resources, strengths and capabilities to tackle a common issue that would otherwise be impossible on the part of a single group.

The challenge, then, is how such a partnership might reduce the interrelated barriers that prevent girls from successful school experiences in Niger, and increase the supportive factors? The next section of the paper focuses on the primary education climate in Niger followed by a section on why girls' education should be targeted.

In 2006 Niger was ranked 177 out of 177 countries on the UNDP's Human Development Index, a step down from the previous rating of 176. Currently Niger is 174, which doesn't necessarily suggest an improvement over the past couple of years, as it could also signify that a few other countries have gotten worse. Niger has a population estimated at 13.9 million, of which 61% survive on less than \$1 a day and almost 49% are under 15 years old (Unicef, 2007). Social indicators are extremely low, with an infant mortality rate of 156 per 1,000 live births, life expectancy of 54 years, and a literacy rate of only 22 percent (The World Bank, 2008).

Niger offers free compulsory education for children 7 to 15 years of age as a participating nation in the *Education for All* (EFA) initiative. However, offering free education is clearly not enough to obtain universal enrollment. Niger's low enrollment rates do not result from any one cause, but from a combination of causes, such as inadequate funding, poor access, and poor quality of education, as well as the fact that many uneducated parents do not see the benefits of sending their children to school (Unicef, 2007).

The Gross Enrollment for all children in the primary school age group 7-12 is 35%:42% for boys and only 29% for girls. This leads to a gender gap of 13 in favor of boys. Net enrollment at the primary level is 27%: 32% for boys and 22% for girls, creating a gender gap of 10 in favor of boys (UNESCO UIS, 2005). In primary schools, the average rate of grade repetition is 12% for the first five grades, and only 60% of pupils who enter the system reach the CM2 level or 5th grade (EFA-FTI, 2002).

Secondary enrollment stands at 8% and 5% for boys and girls, respectively while primary school attendance rates are 46% for boys and 32% for girls (Unicef, 2007). Masked by low primary enrollment in general, there is a significant disparity between urban (42%) and rural (28%) primary school enrollment rates throughout the country.

Research suggests that where enrollment in primary school is low, efforts should be targeted at expanding complete primary schooling as opposed to secondary or higher education. Not only are the rates of return highest at the primary level but, under the best of circumstances, at least five to eight years of primary schooling are necessary to acquire the reading and math skills essential for operational literacy and numeracy (Bellew and King, 1991; Abadzi, 2006).

While primary education is free and compulsory for all children in Niger, national education structures are weak: limited numbers of permanent classrooms and inadequate school supplies, lack of adequately trained teachers, shortage of non-formal education structures, and lack of a locally relevant curriculum. Textbooks are often not available in sufficient quantities and, at times, those available are not for the appropriate grade level. Teachers are issued only rudimentary supplies by the government each school year (a single box of chalk, a lesson plan book, and occasionally teaching texts).

Why girls' education?

Societies cannot progress without educating their citizens. Time and time again education correlated with better quality of life indicators. is achieved with in a country, massive development usually follows. Educating girls has a very profound effect as educated girls and women have been shown to be more influential in ensuring the education of future generations (Rugh, 2000). Almost every other aspect of progress, from nutrition to family

planning, from child health to women's rights, is profoundly affected by whether or not a nation educated its girls (Hadden 1996: 31)

According to Lawrence Summers, former Chief Economist of the World Bank, "educating girls yields a higher rate of return than any other investment in the developing world" (Summers, 1992, p.1). An educated woman has a greater value outside and within the home and thus has an entirely different set of choices than she would without education. She is married much later than her peers and is able to better influence family decisions. She has fewer, healthier children and can advocate for the development of all of them, increasing the likelihood that her daughters are given a fair chance. The education of her daughters makes it much more likely that the next generation of girls, as well as of boys, will be educated and healthy as well. The vicious cycle is thus transformed into a virtuous circle (Summers, 1994).

Further emphasizing the importance of girls' education, two of the eight Millennium Development Goals endorsed by virtually all major international organizations relate directly to girls' education, namely:

Goal 2, Target 3

Achieve universal primary education: ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

Goal 3, Target 4

Promote gender equality and empower women: eliminate gender disparity.

At least four of the other Millennium Development Goals —improvements in child mortality and in maternal health, reductions in the incidence of HIV/AIDS and other diseases, and the assurance of environmental stability— will not be achieved or will be seriously hampered without progress in girls' education (Kane, 2004).

Girls' education promotes economic growth, reduces child mortality and malnutrition, brings improved health to women and those they care for, delays the age of first marriage, lowers fertility and heightens women's political participation (Kane, 2004). In Africa, children of mothers who receive five years of primary education are 40 percent more likely to live beyond age five (Summers, 1994). Multi-country data show educated mothers are about 50 percent more likely to immunize their children than are uneducated mothers (Gage et. al, 1997).

Clearly, girls' education is an issue that must be addressed in all developing nations, but the problem is particularly severe in Niger. In the following sections, I provide an overview of some of the main barriers to girls education divided into three categories; (1) access, (2) attendance and (3) quality. I then discuss how these barriers are interrelated, and suggest some strategies for a multi-sectoral intervention.

The table on the following page presents a layout of the three categories of barriers to girls' education subdivided into even smaller categories. Each of these barriers will then be treated in the following sections supported by research on how they affect girls' education. These are artificial categories selected for the purpose of breaking down a huge problem into smaller parts in order to better analyze the roots. Some of the sub categories could fit just as well under a different main category, but I divided them as best I could to fit the purposes of this paper.

Barriers to Girls' Education

| Access | Lack of schools Distance to schools Lack of transportation to and from school | |
|------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Attendance | Cost | School supplies (notebooks, pens, slates) Proper school clothes & shoes Parent Association fees Loss of household labor childcare income source field hand domestic chores & responsibilities (fetching water & wood, pounding) |
| | Culture & Tradition | Early marriage (often by age 12) Religious views Men don't want an educated wife Female seclusion Lack of knowledge of the social and private benefits of schooling |
| | Health | Lessened cognitive abilities due to poor health Higher rate of absences Shorter attention span |
| | Parental Illiteracy | Parents can't help children with their school work Parents are less likely to see the importance of education |
| Quality | Teachers, Language of Instruction & Curriculum | Untrained, unmonitored teachers Insufficient text books and teacher manuals Curriculum not relevant to students' lives and needs Frequent teacher strikes French language medium Over crowded classes Lack of a full primary cycle Lack of secondary school option nearby |
| | Safety | Fear of sexual abuse by teacher or students at or on the way to school Fear the loss of morals associated with traditional schooling Corporal punishment by teachers |
| | Girl Friendly Facilities & School Environment | Lack of female teachers No latrines or separate facilities for girls Curricula and instruction that do not address girls' needs |

Barriers to Access to School

I. Physical Access

Whether schooling is accessible depends on more than just whether a building exists nearby. Parents filter their views of accessibility through at least three lenses: (1)whether schools are physically accessible, (2) whether parents are comfortable having their children access them, and (3) whether "institutional" barriers exist that prevent children from accessing them (Rugh, 2000). The issue of physical access will be discussed in this section and the other two will be addressed in later sections.

Distance from school is one of the primary factors that discourage girls' attendance. Access is one of those gate keeper issues that must be addressed in order for other girls' education interventions to be successful. "Because [access] is such a critical prerequisite, the accessibility of opportunities needs to be eliminated first as a constraint before addressing other problems of girls' participation" (Rugh, 16, 2000).

There is dramatic evidence from Chad and other Sahelian countries of the impact of distance on enrollment—for example, when children are expected to travel 2–3 kilometers to school, their enrollment is only one-tenth that of children in villages with schools (Kane, 2004). 1/10 is extremely low when we consider that only 28% of rural children in Niger are attending school at all. The distance to school is a factor that severely limits schooling for all children, particularly for girls. According to Niger's Education For All Fast Track Initiative Request, over half of Niger's administrative villages are without schools. In the pupil-exporting villages (i.e., those in which the children attend a different village's school), only 18.9% of Nigerien children are enrolled: 5.6% of girls and 33% of boys. In villages that have neither their own school nor a school close by, no children attend school. In addition, two-thirds of the primary schools located in rural areas do not offer a complete academic cycle (EFA-FTI 2002).

There is nothing new or exciting about the strategy of constructing more schools, but it is an important step to achieving quality education for all by providing access to schooling institutions. There are also alternatives to new school construction, such as schooling that takes place under a make-shift shelter or non-formal education programs that don't necessarily need a school building. This paper will focus primarily on the barriers to formal education and schooling but alternative forms of education must not be forgotten as they provide a viable and cost-effective alternative.

Barriers to Attendance in School

Of course access alone is by no means enough. In villages that have a school, only 43.5 percent of children are enrolled (34 percent of girls and 52 percent of boys). Since only 34% of girls with a school in their own village are actually attending, development strategists must consider the other two other main factors, barriers to attendance, and barriers to quality, that contribute to the significantly lower rate of girls attending school. Getting kids in school is a necessary and beneficial first step, but in order to keep children and especially girls in school throughout the full primary cycle, issues affecting attendance and quality absolutely must be addressed. The following sections will address barriers that may be affecting their school attendance as well as the quality of education they can expect to receive.

I. Cost

School expansion policies will only be effective if they are accompanied by policies that lower the cultural, direct, or opportunity costs of education and/or raise the benefits (Bellew & King, 1991). Families expect that the return on their investment in a daughter's education will be less than on a son's, both because women earn much less money and because the benefits of a girl's education will accrue to her husband's family rather than to her family of origin (O'Gara, et al., 1999).

The fastest and most direct way for governments to boost school enrollments is to reduce the direct, indirect, and opportunity costs to parents of educating their daughters (Herz and Sperling, 2004). The research shows that costs of schooling inhibit girls' enrollment more than boys' (Rugh, 2000).

Niger offers free primary education for children 7 to 15 years of age and there are no uniforms required at the primary level, so there are no direct costs of schooling in Niger. However, there are many indirect costs associated with schooling, including purchasing school supplies such as notebooks, pens, chalk and slates, back packs, clothes and shoes, as well as Association des Parents d'Eleves fees (Parent Teacher Association). Individually these costs may seem minimal, but when added up for each child in school, it becomes too much for many parents to bear. When forced to choose between sending a girl or boy to school, parents will usually choose the boy for the perceived benefits from his education as opposed to from a girl's.

In addition to these indirect costs, parents consider opportunity costs. Women in Niger spend much of their time performing household chores and other domestic labor, which is traditionally the woman's role. Girls often share this work with their mothers; they care for siblings, prepare meals, carry water and firewood, or earn an income from outside

jobs. Many girls sell small fried cakes or candies and others may perform the domestic chores in a wealthier household for a small fee. This small amount of income is often vital to their family's survival. Therefore, it is important to lower the opportunity cost of schooling in order to increase girls' participation.

There are at least three ways to lower this cost. First, scholarship programs can ease the barrier that high opportunity costs create by offering monetary compensation to parents for the loss of their daughters' time. Second, allowing girls to bring younger siblings to school, establishing day-care centers near school buildings, or introducing simple technologies can lower the amount of time girls spend at work. Provision of a millet grinder in a village where girls are expected to perform hours of pounding a day may enable girls to attend school due to the extra hours gained. These technologies must be carefully considered, however, as they do not always deliver the intended result. Often times when a girl is freed up from one task, that simply makes room for her to complete another task. Third, the formal school schedule and instructional time can be made more flexible and consistent with girls' work schedules (Bellew & King, 1991).

II. Culture & Tradition

Since the majority of Nigerien adults have not completed the primary school cycle and only 13% of Nigerien men and eight% of Nigerien women are literate, most are unable to help their children with their studies and often don't see the importance of education in the first place (Wynd, 1995). The poor quality of education that currently exists doesn't offer much to attract out-of-school girls nor does it sustain the participation of enrolled girls as the private returns of education are not apparent to girls and to their parents (Rugh, 2000). Few villagers have ever seen the tangible benefits of educating their daughters, i.e. one of their girls getting a job and bringing money back to the family. This also has an effect on parental attitudes towards educating their daughters because they still don't perceive how it will be beneficial either to the girls or their families.

In the rural areas, there are so few jobs that are available to women, and school is often so tied to the idea of receiving paying work that its other benefits are not considered. People want to see and experience the benefits of education here and now, not ten years down the road. Since they do not see any immediate benefit to education, and most children just end up farming and raising a family, why waste ten years sending a precious source of labor to school when they could be contributing by either working in the fields, selling small products or working in the home? "The school system is valued not for the basic skills it aims to provide for its students, but for the job that students, and their extended families, anticipate upon their graduation from university or professional school" (Wynd, 1995, p. 3).

Even if a child completes the primary school cycle, they must often travel long distances to the nearest town with a middle school and then they will need a place to live and someone to feed them and look after their well-being while away from home. This is

especially tricky for girls, as parents are often wary of sending their young girls off to a bigger town away from the watchful eye of family where she might lose her traditional ways or worst of all become pregnant outside of marriage.

Negative perceptions regarding the value of schooling on the part of both students and their parents is one reason for the low level of demand for primary education. Indeed, schools are often perceived as an acculturating factor, especially in rural areas. The values transmitted are regarded as different at best, or contrary to the traditionally accepted norms at worst. There is also a common perception that educated girls are unfit for marriage and are apt to get "big heads" and have less respect for male authority.

Education is often not seen as relevant to a girls' traditional role as a wife and a mother. In fact, it is often construed as taking away from these pursuits as a girl who attends school has less time in the home to learn domestic tasks. The gender roles in most households clearly divide the tasks that can be done by men and women, and most domestic tasks are allocated to women. This means that girls' are often needed at home for labor such as pulling water, fetching wood, cooking and watching after younger siblings, tasks that their brothers would never be asked to do.

Although attitudes towards the education of girls have begun to change even in traditional societies, many parents still believe that investment in a girl's education is wasted when she is simply going to be married and work in another household. The costs of the investment in education further reinforce the push towards the girl's withdrawal from school.

On top of all these other considerations, sending girls to school is still considered risky. Parents see formal education as leading to moral degradation, resulting in a parents'

biggest fear, unwed pregnancy. Economic, cultural and religious reasons merge to create an environment that is quite hostile to female participation in the education system. These long-held beliefs and traditional values are not easily changed.

Girls are also constrained by cultural norms that limit their activities outside of the home from an early age and encourage marriage around the age of 12. In addition, the widespread belief that school teaches girls modern ways that are in conflict with local behavioral norms and the fear that many girls become pregnant as a direct result of their association with the school makes parents, particularly mothers, very resistant to allowing them to even begin school (Wynd, 1995). Parents often use early marriage as a means to ensure their girls do not get pregnant outside of marriage. A recent study by UNICEF in six West African countries showed that 44 percent of 20-24 year old women in Niger were married under the age of 15. The need to follow tradition, reinforce ties among or between communities, and protect girls from out-of-wedlock pregnancy were the main reasons given. In the communities studied, all decisions on the timing of marriage and the choice of spouse are made by the fathers (Unicef, 2001). These issues creates a real challenge for obtaining gender parity in the Nigerien school system.

III. Health

Health problems among primary school aged children affect their development and often play a huge role in their ability to attend and succeed in school. This is of utmost importance as these same children will one day grow up to be Niger's leaders, Niger's working force, and the minds that will influence the future of the country. In order for children to reach their potential, they must be healthy enough to receive an education. Health interventions are often not considered when developing strategies to promote girls'

education, even though the evidence clearly shows the linkage between attendance and health. Health also affects short-term memory, attention span, and cognitive function, all of which play a role in a child's ability to succeed in the classroom environment. Two of the major health issues affecting girls' ability to attend school in Niger are (1) undernutrition and micronutrient deficiency and (2) malaria.

Undernutrition and Micronutrient Deficiency: Undernutrition exists in synergy with infectious diseases by reducing the body's immunological capacity to defend against diseases, and diseases then deplete and deprive the body of essential nutrients. Undernutrition and infectious diseases further contribute to the cycle of poverty through lost wages, increased health care costs, and impaired intellectual development. Children who are malnourished are more likely to start school late, to perform less well, and to stay in school for a shorter time (Behrman, et al., 2004). If every girl and boy is to be able to complete a basic education of good quality, then ensuring that these children are able to attend and stay in school and to learn while there is essential.

The evidence is clear that nutritional deficiencies place children at risk in school. Malnourished children are less active, less attentive, less motivated, and less responsive than their better nourished counterparts (Abadzi, 2006). They perform significantly lower on assessments of achievement, IQ, psychomotor skills, and social-personal behavior. They are absent from school and repeat grades more often.

Micronutrient deficiencies may take several different forms, each with negative impacts on children's ability to perform well in school. Two of the major micronutrient deficiencies affecting children in Niger are iron and iodine deficiencies. Hungry and iron deficient children have shorter attention spans; iodine deficient children are slower at processing

information and suffer from impaired visual-perceptual and motor coordination (Pollitt, 1990).

- 1) Iron Deficiency: Iron deficiency, the most common form of micronutrient deficiency in school-age children, is caused by inadequate diet and infection, particularly by hookworm and malaria (DCP2, 2006). More than half the school-age children in low-income countries are estimated to suffer from iron deficiency anemia (DCP2, 2006). Children with iron deficiency score 1 to 3 standard deviations worse on educational tests and are less likely to attend school.
- 2) Iodine Deficiency: Iodine deficiency affects an estimated 60 million school-age children; studies indicate prevalence rates between 35 and 70 percent. Iodine deficiency is related to lowered general cognitive abilities and tests scores.

Given this evidence, school feeding programs (SFPs) are often advocated as a means to reduce absenteeism, and improve children's ability to benefit from instruction by removing hunger or nutritional deficiencies. They are also often suggested as an incentive to raise girls' enrollment and attendance by offsetting some of the costs of attending school (Bellew and King, 1991).

The objectives of a school feeding program are generally: (1) to increase school enrollment and attendance among school-age children; (2) to improve the nutritional status of children in school; and (3) to improve the cognitive or academic performance of these children. SFPs have gained a reputation over the years for being expensive, fraught with implementation problems and ineffective in meeting health, nutrition or educational objectives (Miller Del Rosso, 1999). A simpler model might provide locally made snacks to students at the start of each day, serving the purpose of nourishing the students as well as

promoting local food production. Food provided early in the school day to alleviate hunger before or while classes are in session should help to improve attention, concentration, and achievement among children. Providing a snack also significantly cuts the preparation time needed to prepare a more traditional school meal. In Indonesia, for example, a new program provides from 10 to 15 US cents per ration for the local production of a snack food with 300 kcal and 5 grams of protein. The intent of this program is specifically to avoid industrially produced snack foods, since another objective is to increase local food production; however, the emphasis is equally on the delivery of an appropriately-timed snack. Snack foods also avoid the problem of substitution of the school meal for one of the family meals; this is preferable from a nutritional perspective since the school meal will be additional to the normal diet.

Research and program experience shows that improving nutrition and health can lead to better performance, fewer repeated grades and reduced drop out (Del Rosso, 1999). Thus if the aim is to not only to get girls in school but to keep them there, incorporating a nutrition component to any girls' education package of strategies would seem essential.

Malaria:

Malaria occurs commonly in schoolchildren, particularly in areas of unstable transmission in Africa and Asia, and accounts for 10 to 20 percent of all-cause mortality among school-age children (Bundy, 1992). It is a leading source of mortality in this age group and negatively affects education by lowering school attendance, cognition, learning, and school performance. Malaria causes at least 8 percent of the deaths of Niger's children, and perhaps as many as 50 percent, according to a study conducted by the World Health Organization (WHO) in 2005. Deaths from malaria are most common in children and the elderly whose immune systems are the weakest.

Current school-based approaches to prevention of malaria focus on knowledge of the disease and the use of impregnated bed nets but do not address the need for treatment of affected children. Yet presumptive treatment by teachers has been shown to significantly reduce mortality (Pasha and others 2003), and intermittent preventive treatment also shows considerable promise (Brooker, 2000).

In Kenya, primary school students miss 11 percent of school days because of malaria, equivalent to 4 million to 10 million days per year (Brooker, 2000). Oral antimalarial treatment reduced school absenteeism by 50 percent in Ghana; the use of insecticide-treated bed nets in Tanzania reduced malaria and increased attendance (DCP2, 2006). Girls in The Gambia were more than twice as likely to enroll in primary school if they had received malaria prophylaxis in early childhood (DCP2, 2006).

Clearly undernutrition, micronutrient deficiencies and malaria have serious averse effects on boys' and girls' school attendance and their ability to learn once in the classroom. Implementing programs to combat these health deficiencies not only enables children to exist in their most healthy state, ready and able to learn in the classroom, but also serves to encourage girls' participation in schooling.

Provision of latrines, for example, is a measure that helps to prevent the spread of disease among children and the community and it is also one of the factors that contributes to making a school girl-friendly because it gives girls privacy. School-feeding programs or even the provision of a daily snack have also been shown to encourage girls' participation in schooling by decreasing the opportunity costs to parents. It is also highly likely that parents will be more willing to send their girls to school if they know that healthcare is provided,

such as malaria prophylaxes or micronutrient supplementation, as these are very expensive services in the local healthcare system if they are available at all.

Ill health is a barrier to girls' access to and participation in schooling. Not only does it often physically prevent them from attending school, but it also affects their ability to concentrate, their attention span, short-term memory and other cognitive functions that are necessary in the school environment. In order to implement a complete package of interventions to increase access to and quality of education for girls, promoting good health is a necessary addition to encourage retention and continued success in the classroom. In light of the significant effects of ill health and malnutrition on educational outcomes, the role of effective health promotion and simple school-based programs to deliver low-cost interventions becomes increasingly important (Bundy et al., 1992). Studies suggest that school health programs may be a cost-effective way of increasing school participation of both girls and boys where many children suffer from poor health (Herz and Sperling, 2004). Health, hygiene and nutrition education and services, such as provision of micronutrients and de-worming services, along with life-skills-based education, are therefore important components in programs designed to enhance learning outcomes and empower girls. Such programs are likely to be most effective where they are supported by other strategies such as school provision of safe water and sanitation, and skills based health education.

IV. Illiterate Parents

Mothers have a profound impact on their children. Nigerien fathers in general spend very little time with their children and play the role of the disciplinarian (Wynd, 1999).

Mothers, on the other hand, watch their children from morning till night and transfer directly or indirectly many of their skills to their children. Mothers who are educated are much more likely to make sure that their daughters also receive an education (Bellew, 1991).

A mother who places a value on literacy and education will tend to transfer that value to her children and encourage them to succeed in school. A literate mother is also able to help her children with schoolwork and enable them to be successful. When parents, in particular mothers, are educated, their children – both boys and girls – will be healthier, better nourished and have a greater chance of going to school and doing well there. Investing in educating mothers as well as girls is one of the best ways of ensuring that future generations will be educated (UNESCO, 2004).

Literacy classes would enable mothers to better understand the value of education and also to support their children in their studies. A combined literacy and savings & loan program for mothers would have the added benefit of helping to reduce the opportunity costs of sending girls to school by providing access to additional funds for small incomegenerating projects.

Over the past decade, CARE has facilitated the creation of over 5,500 active women's micro credit groups in Niger with over 162,000 members (Allen and Grant, 2002). These savings and loans groups have been extremely successful and are easily replicable using CARE's model. The CARE trainings, however, do not include a literacy component, which severely limits the scope of the group. Incorporating literacy into these groups would

reinforce the income building capacity of the women as well as providing them with an invaluable skill for themselves and their families.

There are several benefits that stem from incorporating reading, writing and numeracy skills into a savings and loan group. Literate women are more confident women. Literacy builds confidence and reduces the need for the group to rely on one or two literate members. Confident women also make better business women. There's no denying that confidence is a benefit to a woman running her own business. She will stand up for herself if she is being cheated, (and since she can read and numerate, she will know when she is being cheated). A confident woman will be able to market her product to different populations and more convincingly sell it.

Participating in literacy classes gives women a space, often for the first time in their lives, to make their voices heard. They are able to participate in discussions and are given the chance to present to their peers, increasing their confidence in sharing with others. This translates outside the classroom into women who can better articulate their needs. This could mean women going to meet with a local NGO to request materials, or going to a bank to seek credit. It may also mean a woman who is willing and able to advocate for her daughter's education. Literacy training for helping mothers gain the practice and the skills necessary to confidently advocate for their needs and the needs of their families.

If women see literacy as a means of developing their incomes, they will be even more motivated to learn to read. By emphasizing the skills they need to expand their livelihoods, there is a better chance that the women will adhere to the program, as the literacy learning is clearly tied to their goals (Hinzen, 2000). If they understand that learning to read will help them build a more successful savings and loan cooperative, then they will see literacy as a

necessary step to achieving their goals. Literacy cannot remain an abstract concept that is an end in itself but serves a specific purpose for the learner (Hinzen, 2000).

CARE's women's' groups in Niger are called Mata Masu Dubara (MMD, a Hausa term for "women on the move"). The MMD methodology is unique in that it does not provide external credit. Instead, it focuses on building local community capacities. The project helps women organize themselves into groups of around 30 women, usually based on existing affinities. The groups elect a management committee that leads the group.

Weeklycontributions to the group revolving fund enable women to save money and also gain access to credit.

Adding a literacy curriculum to these MMD trainings in savings and loan banks can serve a number of purposes at once, all of which in someway relate to improvements in girls' education:

- 1) Enable women to attain functional literacy skills
- 2) Provide a system of credit so that women can participate in microfinance projects
- 3) Enable women to better aid their children with their school work
- 4) Increase self-esteem and value within the household & community

Ideally, the training for Nigerien women's savings and loan groups would be based on an integrated or content-based curriculum. Content-based instruction "focuses upon the substance or meaning of the content that is being taught" as opposed to general literacy that uses subjects simply as a means to teach reading and writing (Sticht, 1997). There is a specific content, i.e. Management of a Savings & Loan Groups, which is used to teach literacy and numeracy skills.

The MMD groups have done well up until this point by relying on oral accounts and their collective memory to keep track of interest and loans. One reason why this works is that most groups have no more than 30 members saving their money in fixed weekly contributions, and they only provide month-long interest bearing loans (Allen and Grant, 2002). This means that each loan must be repaid with 10% interest after four weeks. If the group were able to write and calculate, they could potentially offer longer loans that would allow the women to go farther with their livelihood or income-generating projects.

Reading, writing and numeracy should be incorporated from the very beginning and should be taught in a way that demonstrates their relationship to each other and also their relationship to building a stronger savings and loan group and enhanced livelihood activities. As the women learn about how to manage their savings and loan group, it will become apparent that they need to be able to write in order to keep track of women's names and their loan amounts and accumulated interest. They will also need numeracy skills in order to calculate the interest rates on the loans, and perform the math on more complex longer term loans. Numeracy will also be useful to them in their own livelihood activities.

On a more basic level, acquiring writing will allow the group to keep track of accounts and loans given out to members. In the CARE MMD savings and loan groups, policies do not allow funding larger loans, making longer-term loans, or creating repayment mechanisms, as these "go beyond the current capacity of the women to manage them. The flexibility of the methodology is inherently limited by the levels of literacy (and numeracy) of the groups" (Allen and Grant, 2002, p. 205).

The ability to write and keep accounts will allow the women to experiment with a more complex system of loans. With only a four week loan, investment is restricted to very

short-term activities like trade or food production. "Agriculture, the main economic activity of the country, cannot be financed owing to the short-term nature of the loans and because agriculture is seen as inherently more risky" (Allen and Grant, 2002, p. 20). Since the women will be able to read, write and numerate, they can keep track of loans and rollover the loans and interest to make longer term loans possible thus allowing the women to engage in activities that could potentially be more economically beneficial.

An integrated curriculum is beneficial in this context for several reasons. First, the purposes of literacy in the rural Nigerien context must be considered. There is no wide availability of print materials, and therefore people need strong motivation in order to see the relevance of literacy to their lives. Incorporating literacy into the savings and loan groups will allow the women to better manage their group while also providing them the means to seek new information as well as new linkages and tools to sustain their growth. By integrating literacy into a content that is vital to the women, two objectives are achieved at once. Literacy levels improve and the savings and loan group is able to function more effectively and autonomously. This leads to a positive cycle as the women are then able to help their daughters with their schooling as well as to earn some extra income to reduce the opportunity costs incurred by sending a daughter to school.

Literacy especially for girls and women, contributes greatly to enhanced well-being for families and communities. It can contribute to a wide range of areas, including conflict resolution, nutrition, health care, employment and livelihoods, and improved quality of life. A literacy intervention targeting mothers and interventions that enhance girls' access to schooling are mutually reinforcing. The literacy classes are often the means by which these mothers attain their voice and learn how to advocate for themselves and their daughters. This increased self-esteem and heightened self-efficacy, which often is a result of literacy

programs whether literacy has actually been attained or not, cannot be discounted when considering methods for encouraging girls' education.

Barriers to Quality

I. Relevance of the Curriculum

Even if barriers to access and attendance are reduced, will the system as it is currently set up be able to provide a quality education that is relevant to the lives of those girls? Sadly, the answer to this question throughout most of Niger has been an emphatic "no."

There must be some major improvements in the relevance of the curriculum and overall quality of education in order to have an effect on girls' participation and retention.

Not just more education, but better education. Improving the academic content of schools to include more information relevant to the lives of its student population, such as skill development, and content related to health and nutrition, should have a positive impact on other development indicators as well as possibly increasing the returns that girls and their families receive from education.

The current curriculum is still a remnant of the French colonial system and refers to modernities that are non existent in a rural Nigerien village. Updating the curriculum to reflect the current needs of the population will serve to encourage children to stay interested in school as well as motivating parents to send their children. Vocational training or livelihood training could be a vital component that would elicit the support of parents and children alike as they would perceive that they are learning skills that are useful to them outside the classroom and also provide the means to earn a much needed income.

II. Girl Friendly Facilities/School Environment:

If the quality of education is not satisfactory, the curriculum not relevant, nor the rewards substantial, parents will be disinclined to send their daughters to school. Making schools more "girl-friendly" is an important step to increasing girls' enrollment. But keeping girls at school requires a combination of comprehensive measures. These include: improving the physical infrastructure, such as separate toilets; ensuring girls' privacy and safety in accordance with cultural requirements; teaching in ways that discourage gender stereotypes and encourage girls to learn; providing trained female teachers to act as role models, especially for older girls; and including the community in the management of schools (Herz and Sperling, 2004).

A lack of girl-friendly amenities, such as latrines, create a disincentive for girls' attendance and enrollment in school. Appropriate sanitation facilities are essential in attracting children to school and keeping them there, with separate sanitation for girls a particularly important factor for the retention in school of adolescent girls with the onset of menstruation. According to UNICEF, out of 8,301 Nigerien schools in 2004/2005, more than 6,990, or 84%, had no latrines, hindering both school access and quality, as well as students' health (Unicef, 2007). The research is clear that private latrine facilities are a must (Herz and Sperling, 2004).

III. Female Teachers

Recruiting female teachers is another effective way to increase underserved girls' retention in school. Recruiting female teachers is a strategy that addresses several issues at once. It certainly addresses issues of cultural appropriateness, security and safety for girls. Women teachers have an immediate and direct influence on girls' retention in school because their presence can allay parents' fears about their daughters' security and reassure

them that sympathetic treatment will be the norm (O'Gara, et al., 1999). It also addresses the perception that schooling is useless for girls by presenting female role models who are working as a result of their education.

Since, in Niger, cultural constraints play an important role in determining whether girls go to school and, once there, how well they perform, female teachers can have an important impact on their retention and achievement (UNESCO, 2000), at least at the primary level (Kane, 2004). Recruiting female teachers has had positive results in other countries, such as Pakistan, where increasing the female teaching force and drawing teachers from local communities has improved community perceptions of women's roles (O'Gara, et al., 1999). Not only is teaching now a potential job for women and thus a reason for girls to persist in their schooling, but female teachers represent a new wave of active women. Selecting female teachers from the village also lends an atmosphere of trust. Parents trust that their daughters are safe and in good hands, and daughters feel comfortable in their learning environment because they are already familiar with the teacher. Cultural norms are being observed and parents worry less about their daughters' safety.

The ratio of female primary school teachers in Sub-Saharan Africa is the lowest in the world and yet the data consistently shows that recruiting local female teachers attracts girls to primary school. Villages in Balochistan, Pakistan with female teachers had higher participation rates for girls than villages with male teachers. (Rugh, 2000) In Botswana, schools with a higher proportion of female teachers were consistently positively linked with improvements in girls' achievement levels.

Recruiting female teachers is often difficult; because girls are kept out of school and achieve less when they are in school, women with the necessary education level can be difficult to identify, particularly local women. As Tietjen states, "the low percentage of

female teachers is related to the low enrollment of girls and the subsequent lack of qualified female teaching candidates in areas where they are most needed" (1991). Even when there are educated women available, they must be willing to live in remote rural areas, problematic due to the cultural taboo of a woman living alone. In Balochistan, the government used an innovative strategy of Mobile Teacher Training Units (MTTUs) to train local women who could then go back and teach in their villages (O'Gara, et al., 1999). These MTTUs brought female teachers to their regional centers so they wouldn't have to travel all the way to the capital for training. Once the women were trained, there was also an extensive amount of follow-up and mentoring that occurred to help improve their teaching practices to the necessary levels.

I. Overview:

The previous sections examined some of the major contributing factors that affect girls' ability to attain a quality education in Niger focusing on the barriers to access, attendance and quality. The purpose of this analysis was to demonstrate the complexity and inter-relatedness of the factors affecting girls' access to and continuation in school and to suggest that the interventions to address these issues must also reflect this same level of complexity and connectedness. Each of the interventions examined in this paper – (1) building schools near girls, (2) creating a girl friendly environment in schools, (3) reducing educational costs, (4) providing health and nutrition services, and (5) educating mothers through adult literacy programs – are multidimensional in nature. Rather than tackle a single barrier to girls' education, they address many. Combined as a package of interventions, they present a comprehensive multisectoral approach that addresses many of the barriers to girls' education in Niger along the full spectrum from access to retention.

II. Transferability:

This paper only touches on the some of the major factors that play a role in girls being able to participate fully in the educational process. Not all of these factors will be present in every community and therefore strategies must be tailored to the specific situation. No two villages are identical in their physical, cultural, historical, religious or social makeup, and the interventions that are selected for a particular village should reflect the unique situation of that village. It is impossible to come up with an "ideal" package of one size fits all interventions to increase girls' participation in schooling because it doesn't exist.

Rather than investing in promising options that have been successful in other contexts, it makes more sense to follow the integrated development framework laid out in

this paper. Following the framework will lead to a package of interventions that recognize the complexity and connections among development issues and addresses these issues across multiple sectors, thus leading to an improvement in the problem to be addressed as well as other community issues.

III. Review of the Integrated Development Framework:

- (1) First local NGOs must comprehensively **assess the situation** on a community-by-community basis to determine the many roots of the problem and the factors that might bring about a positive change regarding the issue? Identifying a barrier that reduces girls' educational participation does not necessarily translate into a program or incentive that will improve their access, retention and achievement. Local NGOs must ask parents what would convince them to enroll their children as well as examining what obstacles are keeping girls out of school (Tietjen, 1991).
- (2) Next the NGOs must examine the interrelated nature of the causes of the development issue to be addressed. Religious, social, cultural and health factors may all play a role in determining whether a girl attends school, and it is essential to understand how these different issues interact in order to determine which sectors need to be involved in the package of interventions.
- (3) The third step is to determine which of the many cross-sectoral issues affecting the development problem are the "gatekeepers" that absolutely must be addressed in order to achieve a successful outcome. These gatekeeper issues could be different in two neighboring villages, so we have to examine these issues in each individual context.

A failure to recognize how the issues are interrelated will result in an ineffective or at least less effective intervention. This analysis should happen on two levels: first, by

following the framework to determine which issues prevent girls from going to school, how are they related, and which are the gatekeepers; and second, for any intervention by examining the outcome of that intervention and what affect that might have across sectors.

For example, if a government decides to eliminate school fees in order to increase girls' enrollment, but takes no other action, this may do nothing to actually improve the problem if the real reason girls in a particular village aren't attending school is because they have to care for their younger siblings. Second, they must consider the outcome of eliminating school fees—increased enrollment—and also ensure that there are adequate teachers and learning materials to absorb the new numbers of students—when school fees were eliminated in Uganda in 1997, enrollments increased two-fold in a single year. Otherwise, the benefits of the intervention will be questionable (PRS sourcebook, 2002).

The measures necessary to ensure that interventions are well thought out and address the appropriate issues can greatly increase the scope, costs, implementation complexity, and timeframe of a reform. Without this type of multisectoral intervention, however, a reform has little chance of bringing about lasting change (PRS sourcebook, 2002).

Of course, carrying out this type of multisectoral intervention is not an easy feat.

Most developing country governments don't have the resources to mount such a large-scale intervention nor the technical capacity to carry out the interventions across sectors. Even most large international NGOs are limited by technical expertise, geographical coverage, resources, or a combination therein.

IV. Partnerships

That is why in order for an integrative development approach to truly be successful, there must exist strong partnerships among NGOs, communities and the government so that resources and technical capacity can be pooled. These partnerships should be "built on mutual vision yet with space for partner organizations to contribute their unique strengths towards common goals. Without these links, efforts become scattered, overlap, or leave gaps that reduce the level of final impact" (Rugh, Sage, 43).

Partnerships are essential to this type of multisectoral reform as governments alone do not have all the resources necessary to implement such broad reforms. The government must forge links between multiple sectors and levels including religious organizations, the media, the private sector, and other civil society entities, in order to ensure that effective reforms take place (The Consensus Brief on Girls' Education, 2000). According to the thematic study – *Partnerships in Education: Dimensions, Variations and Implications* by Mark Bray at the Comparative Education Research Centre, there are several key reasons for engaging in partnerships.

One key reason is that partnerships rely on shared experiences and expertise. Each partner brings specific knowledge and skills to the task, which promotes local input and also leads to a sense of ownership for all parties involved. When people work together and are intimately involved in a task, they are much more likely to feel ownership than if the task is performed for them by someone else.

Another reason is that partnerships also provide a means of mutual support for achieving common goals. There is a sense of accountability when several parties are involved and each party holds the other accountable for their task. Partnerships also allow for a judicious division of labor. Each partner can carry-out the task that they do best and

that they are most willing to undertake. Everyone stands to gain from the services provided by each of the partners. In essence, partnerships mobilize and utilize resources more effectively, promote ownership, allow for division of labor and offer mutual support and a sense of accountability (EFA Thematic Study 1999). The beauty of a partnership is that all sides realize that collaboration considerably extends their reach; and all sides achieve more through partnership than they would on their own (USAID 1998, p.24).

V. Benefits of the Integrated Development Approach

The multisectoral integrated development approach has many benefits. First, it increases the range of issues that can be addressed. Involving multiple partners across sectors enables the many different roots of development problems to be addressed. In order to uproot a tree, pulling out one of its roots won't do much good. The tree will still be able to stand as it is held up by many different roots. If we pull up most of the roots, however, the tree will fall over. This is the same idea for the integrated development approach. By attacking the many different roots of the development problem, we have a much better chance of success at eventually eliminating the problem.

A multisectoral integrated development approach also generates a critical mass of support for girls' education. By helping other sectors outside of education understand how girls' education relates to them, we can create a base of support that is much more broad and with many more resources than just the education sector alone. As an added benefit, when sectors combine efforts and work together, everyone wins. Not only are educational needs being addressed, but the many other needs associated with poverty such as income generation, health, literacy, sanitation etc. are also dealt with as well. The benefits now spread out and multiply from the initial target population of girls into their communities.

VI. Weaknesses of the Integrated Development Approach

There are also weaknesses to the multisectoral approach that must be acknowledged. Involving numerous actors across sectors requires time, energy, resources and a tremendous amount of coordination. NGOs are generally funded by donors and have strict mandates about what they are expected to accomplish and by when. Local NGOs often have more latitude, but may have more personnel and resource constraints.

On top of this, there is the difficulty of deciding which combination of strategies will make an impact. Following the framework laid out in this paper should be helpful, but this is a time consuming process as it can't be assumed that the situation in any two villages is the same. This leads to the difficulty of trying to scale-up if interventions must be village specific. In order to make this a feasible solution, the implementing parties could choose from 4 or 5 packages of interventions which would be best suited to their particular areas of implementation.

VII. Final Notes

In Niger, the opportunity to implement a multisectoral solution for girls' education is a reality. The Millenium Challenge Corporation is a United States Government corporation offering substantial grants to developing nations who meet certain indicators in three categories: Ruling Justly (political rights, civil liberties, control of corruption, government effectiveness, rule of law, voice and accountability); Investing in People (immunization rates, health expenditures, primary education expenditures, girls' primary education completion, natural resource management) and Economic Freedom (rquality, land rights and access, business start-up, trade policy, inflation and fiscal policy). One of the areas where Niger is significantly below average on the indicators is girls' primary education completion. In March of 2008, Niger signed on with the Milenium Challenge Corporation

(MCC) as a "threshold country". Meaning they would receive a smaller grant aimed at getting those few low indicators up to par and then would be eligible to be a compact country which would mean a significantly larger grant.

It is likely that Niger will receive between 10 and 15 million dollars to address the issue of subpar girls' education completion throughout the country. A consortium of international non-governmental organizations partnering with local ngos will be selected by the MCC to implement a package of strategies to improve girls' education over the next two years. The major international education ngos in Niger, Plan International, Aide et Action and CARE, have already begun discussions over their ability to partner and provide the services necessary to address the multiple intervention strategies needed to make improvements in girls' education. If this consortium is selected, they will then contract with local ngos across the country in order to implement all the necessary measures. This will definitely be a step in the right direction, but two years is not nearly enough to make a significant difference in the lives of Nigerien girls. If they can succeed in raising the indicators enough, Niger will be eligible to become a compact country, which means they could receive billions of dollars which would allow them to continue implementing cross-sectoral strategies at a much deeper level.

Examining and addressing development issues from an integrated, multisectoral perspective will take more time, effort, communication, partnerships and resources in the here and now—but it will lead to a more thorough and long-term solution to the problem in the long run. In order to achieve lasting results, the development world can no longer continue with a piecemeal approach, attacking one issue at a time and ignoring or overlooking the complex relationships across sectors. Now is the time to establish relationships across sectors and work to understand how development problems are

interconnected across these sectors. If the government, NGOs and communities bring together their resources, technical capacity, and geographical reach, it won't be easy, but the progress that is made will be lasting.

References

- Abadzi, H. (2006). Efficient Learning for the Poor: Insights from the frontier of cognitive neuroscience. The World Bank. Washington, DC.
- Abu-Ghaida, D (World Bank). & Klasen, S. (University of Göttingen). (May 2004). The Economic and Human Development Costs of Missing the Millennium Development Goal on Gender Equity. Retrieved on June 4, 2007 from http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079934475/MDG Gender Equity.pdf
- ADEA, Association pour le développement de l'éducation en Afrique. (December 2003).

 L'enseignement bilingue au Niger. Retrieved on June 7, 2007 from

 http://www.adeanet.org/publications-biennale/docs/Lesetudesdecasnationales/CS-Niger-fre.pdf
- Alidou, H., Boly, A., Brock-Utne, B., Satina Diallo, Y., Heugh, K. & Ekkehard Wolff, H. (2006). Optimizing Learning and Education in Africa the Language Factor: A Stock-taking Research on Mother Tongue and Bilingual Education in Sub-Saharan Africa. Retrieved on June 7, 2007 from http://www.adeanet.org/meetings/docs/conf%20Nam05/Eng/CompleteMTBLEReport_engl.pdf
- Allen, H., & Grant, W. (October 2002). CARE's Mata Masu Dubara (MMD) Program in Niger: Successful Financial Intermediation in the Rural Sahel. *Journal of Microfinance*, 5(2), 191-205. Retrieved on February 10, 2007 from http://www.microfinancegateway.org/files/13956 ASCAs in Niger.doc
- Aoki, A, B. Bruns, M. Drabble, M. Marope, A. Mingat, P. Moock, P. Murphy, P. Paci, H. Patrinos, J. Tan, C. Thomas, C. Winter, and H. Yang. (2001). "Education" in Poverty Reduction Strategy Sourcebook. PREM Poverty Unit. Washington D.C.: The World Bank. Retrieved on March 8, 2008 from http://povlibrary.worldbank.org/files/5798_chap19.pdf
- Bellew, R. and King, E. (1991). Promoting girls' and women's education: Lessons from the past. The World Bank. Retrieved on March 1, 2008 from http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2000/07/19/00009265 3961001153124/Rendered/PDF/multipage.pdf

- Benson, C.J., UNESCO. (2005) Girls, Educational Equity and Mother Tongue-Based Teaching. Retrieved on May 21 from http://www2.unescobkk.org/elib/publications/Girls-Edu-Equity/Girls-Edu.pdf
- Benson, C.J. Real and Potential Benefits of Bilingual Programmes in Developing countries. Retrieved on June 8, 2007 from http://www.multilingual-matters.net/beb/005/0303/beb0050303.pdf
- Behrman, J., Alderman H., and Hoddinott, J. (February 2004). *Hunger and Malnutrition*.

 Copenhagen: Copenhagen Consensus Challenge Paper. Retrieved on August 5, 2007 from

 http://www.copenhagenconsensus.com/Files/Filer/CC/Papers/Hunger_and_Ma_lnutrition_070504.pdf
- Bernbaum, Marcy; DeStefano, Joe; Hartwell, Ash; Owen-Rea, Julie; Tietjen, Karen. (1998): USAID's Strategic Framework for Basic Education in Africa. Washington DC: Bureau for Africa, United States Agency for International Development.
- Bray, Mark. (1999) EFA Thematic Study Partnerships in Education: Dimensions, Variations and Implications. Comparative Education Research Centre. Retrieved March 20, 2007 from http://www1.worldbank.org/education/globaleducationreform/pdf/Community%20partnerships%20in%20education.pdf
- Bundy, D. A. P., Hall, A., Medley, G. F. and Savioli, L. (1992). Evaluating Measures to Control Intestinal Parasitic Infections *World Health Statistics Quarterly* 45: 168 79
- Brooker, S., Guyatt, H., Omumbo, J., Shretta, R., Drake, L., and Ouma, J. (2000). Situation analysis of malaria in school-aged children in Kenya What can be done? Parasitology Today, 16, 183-186. Retrieved on July 1, 2007 from http://www.schoolsandhealth.org/download-docs/shortmalariareport-revised.doc
- Campbell, P. (2004). Teaching reading to adults: A balanced approach. Edmonton, Alberta: Grass Roots Press.

- DCP2 Disease Control Priorities in Developing Countries. 2nd edition. (April 2006). Disease Control Priorities Project. Retrieved on August 20, 2007 from http://www.dcp2.org/pubs/DCP
- Del Rosso, J. (June 1999). School feeding programs: Improving effectiveness and increasing the benefit to education. A guide for program managers. The Partnership for Child Development. Retrieved on June 1, 2007 from http://www.schoolsandhealth.org/download-docs/SchoolFeeding-DelRosso-June99.pdf
- (DFID) Department for International Development. (January 2005). Girls' education: towards a better future for all. Retrieved on June 1, 2007 from http://www.ungei.org/resources/files/girls-education-progress-report.pdf
- Draper, A. (1997). Child Development and Iron Deficiency: Early Action Is Critical for Healthy Mental, Physical, and Social Development: The Oxford Brief. Retrieved on May 31, 2007 from http://inacg.ilsi.org/file/childdev.pdf
- Hall, A., L. J. Drake, and D. A. P. Bundy. 2001. "Public Health Measures to Control Helminth Infections." In *Nutritional Anemias*, ed. U. Ramakrishnan. Boca Raton, FL: CRC Press.
- Herz, B. & Sperling, G. (2004). Evidence and Policies from the Developing World: What Works in Girls' Education. Council on Foreign Relations. Retrieved from http://www.ungei.org/resources/files/councilforaff Girls Education full.pdf
- Hinzen, H., Hamid-Diallo, A., Oxenham, J., Petkova-Mwangi, A., Ruhweza Katahoire, A., and Sall, O. (2002). Africa Region Human Development Papers Series: Skills and literacy training for better livelihoods: A review of approaches and experiences. *Journal of Adult Education Development.* 58. 6-44.
- Hovens, M. Bilingual Education in West Africa: Does It Work? Retrieved on June 29, 2007 from http://www.multilingual-matters.net/beb/005/0249/beb0050249.pdf
- James, Sarah., Thomas, Alan. & Williams, Paul. University of Wales, Swansea. Integrated rural development as policy integration. Retrieved February 10, 2008 from http://www.sustainable-euregions.net/documentbank/Paul%20Williams%20paper.doc

- Kane, E. (May 2004). **Girls' Education in Africa:** What Do We Know About Strategies That Work? The World Bank. Retrieved on June 5, 2007 from http://www.ungei.org/resources/files/girls-ed-Africa04-AFRHD.pdf
- Kelly, G.P. 1987. Setting state policy on womens' education in the thrid world: Perspectives from comparative research. *Comparative Education 23(1)*: 95-102.
- Kostov, P. & Lingard, J. Integrated rural development do we need a new approach? Retrieved February 10, 2008 from http://129.3.20.41/eps/othr/papers/0409/0409006.pdf
- Leedy, P. D., & Ormrod, J. (2001). Practical research: Planning and design. (7th ed).
- Maman, G. Université de Niamey. Education bilingue au Niger : Entre convivialité et conclits linguistiques. Retrieved on June 8, 2007 from http://www.bibliotheque.refer.org/livre244/124439.pdf
- Miguel, E., and Kremer, M. (2003). "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." Econometrica 72 (1): 159–217.
- Miller Del Rosso, J. The Partnership for Child Development. (June 1999). School Feeding Programs: Improving effectiveness and increasing the benefit to education. A Guide for Program Managers. Retrieved on May 31, 2007 from http://portal.unesco.org/education/en/file_download.php/aa5df5dc6a74959fe9c58 http://portal.unesco.org/education/en/file_download.php/aa5df5dc6a74959fe9c58 http://portal.unesco.org/education-programs.pdf
- O'Gara, C. & Benoliel, S. & Sutton, M. & Tietjen, K. (June 1999). More, But Not Yet Better: An Evaluation of USAID's Programs and Policies to Improve Girls' Education. USAID Program and Operations Assessment Report No. 25. Retrieved on June 4, 2007 from http://pdf.dec.org/pdf docs/pnaca929.pdf
- Pollit, E., (1990). Malnutrition and Infection in the classroom. Unesco. Retrieved on May 29, 2007 from http://unesdoc.unesco.org/images/0008/000863/086302eb.pdf
- Recht, D. R., & Leslie, L. (1988). Effect of prior knowledge on good and poor readers' memory of text. *Journal of Educational Psychology*, 80(1), 16-20.

- Rihani, M. Academy for Educational Development. (2006). Keeping the Promise: Five Benefits of Girls' Secondary Education. Retrieved May 29, 2007 from http://www.ungei.org/infobycountry/files/aed_keepingpromise.pdf
- Rugh, A. (2000). Starting now: Strategies for helping girls complete primary. AED, Washington, D.C. Retrieved on June 7, 2007 from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/000001_9b/80/19/dd/46.pdf
- Spence, N. UNESCO Bangkok. (2006). Getting girls out of work and into school: policy brief. Retrieved on June 1, 2007 from http://www.ungei.org/resources/files/unesco_girls_out_ofwork.pdf
- Sticht, T. (1997). The Theory Behind Content-Based Instruction. *Focus on Basics*, Volume 1, Issue D, December 1997.
- Summers, L. (May 1992). Investing in All the People. Retrieved on June 1, 2007 from http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1992/05/01/00000926
 53961003011714/Rendered/PDF/multi-page.pdf
- Tietjen, K. USAID. (December 1991). Educating girls: Strategies to increase access, persistence and acheivement. ABEL Research Study. Retrieved on March 23, 2008 from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content-storage-01/000001-9b/80/13/1c/85.pdf
- Tietjen, K. USAID. (June 1999). Community Schools in Mali: A Comparative Cost Study. Retrieved on June 6 from http://pdf.usaid.gov/pdf docs/PNACF443.pdf
- UNESCO Institute for Statistics UIS. (2005). UIS statistics for Niger. Retrieved on May 28, 2007 from http://stats.uis.unesco.org/unesco/TableViewer/document.aspx?ReportId=121&IF_Language=eng&BR_Country=5620&BR_Region=40540
- UNESCO. (2003/2004). Gender and education for all: The leap to equality. Summary EFA global monitoring report. Retrieved on April 3, 2008 from http://www.unesco.org/education/efa report/summary en.pdf

- Unicef United Nations Children's Fund. (March 2001). Early Marriage: Child spouses. Innocenti Digest No. 7. Retrieved on May 30, 2007 from http://www.unicef-irc.org/publications/pdf/digest7e.pdf
- Unicef United Nations Children's Fund. State of the World's Children 2007; Retrieved on June 14 from http://www.unicef.org/socw04
- Unicef United Nations Children's Fund. Focusing Resources on Effective School Health: FRESH Program. Retrieved on June 4, 2007 from http://www.freshschools.org/schoolservices.htm
- United Nations Publication. (2003). An Integrated Approach to Rural Development Dialogues at the Economic and Social Council. Retrieved on February 16, 2008 from http://www.un.org/ecosoc/docs/pdfs/An Integrated Approach to Rural Development.pdf
- Williams, H. Academy for Educational Development. (June 2001). Multisectoral Strategies for Advancing Girls' Education: Principles and Practice. SAGE Technical Report no.
 Retrieved June 6, 2007 from http://www.aed.org/ToolsandPublications/upload/Williams.pdf
- World Bank. (2008). Niger Country Brief. Retrieved on June 24, 2007 from http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/NIGEREXTN/0, menuPK:382460~pagePK:141132~piPK:141107~theSitePK:382 450.00.html
- Wynd, S. (June 1995). Factors affecting girls' access to schooling in Niger. Retrieved on July 5, 2007 from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/000001_9b/80/16/91/d2.pdf