

Achieving MDG 1 in Senegal: Agricultural Development Challenges and Strategy

In 2001, the member states of the UN adopted the Millennium Development Goals, a set of eight targets formulated to eliminate serious social and economic problems on a global scale. First among these goals is to eradicate extreme poverty and hunger by 2015.¹ On an international scale, it is likely this goal will be met, yet many countries will fall far short of the target.² Senegal, which ranks 156 among the 177 member states in the Human Development Index³, faces considerable challenges in meeting this goal, as does much of sub-Saharan Africa^{*}. While Senegal saw an annual economic growth rate of 5 percent from 2003-2005⁴, its GDP growth is now at 3.3 percent⁵. To reverse this decline in growth for the second generation of the Poverty Reduction Strategy (PRS) from 2006-2010, Senegal will need to see marked improvements, particularly with respect to food security and GDP growth in rural areas.⁶

This paper will explore Senegal as a case study on development challenges in sub-Saharan Africa. The scope of the study centers on MDG 1 in lieu of a broader discussion of Senegal's progress in achieving the MDGs as a whole. The study will first consider MDG 1 in the context of three indicators: (1) the prevalence of extreme poverty, (2) hunger, and (3) unemployment. The focus of this study will then narrow to examine Senegal's development strategy as it is articulated through its Poverty Reduction Strategy Papers (PRSPs). An examination of one of Senegal's largest development impediments, its status as a net importer, will then be considered; in particular, the paper will discuss Senegal's standing as a net food importer and how this hinders the nation's ability to promote food security and GDP growth in the struggle to eradicate extreme poverty and hunger. Lastly, the paper will engage a discussion of demand-side development solutions in the form of innovative agricultural programs that promote domestic rice production.

* According to one study conducted in 2005, 86 of 155 countries were at risk of not achieving the MDGs. Of the 47 African countries, 42 were projected not to reach at least some of the goals and 12 were projected to fall short of all the goals. (see Michael Clemens, et. al., "Development Goals and Indicators: The Millennium Development Goals, Aid Targets, and the Costs of Over-Expectations," *Sustainable Development Law & Policy*, Fall 2005.)

MDG 1

In September of 2000, the General Assembly of the United Nations adopted the Millennium Declaration.⁷ This resolution reaffirmed the principles of the UN Charter as it upholds peace, equality, sovereignty, self-determination, human rights, non-discrimination, and efforts to solve international economic and social problems. While reiterating support for these ends, the assembly also recognized the unevenly shared benefits of “globalization” to date. Special note was made with respect to the economies of “developing countries” and countries with economies in transition; policies are required, the declaration maintained, that take into special consideration the social and economic challenges of those nations, and that such policies be of a participatory nature.⁸

In the spirit of the Millennium Declaration, in September of 2001, the assembly authored a roadmap calling for specific development targets. This roadmap articulated eight Millennium Development Goals which set quantifiable benchmarks to advance development globally. The first goal among the eight MDGs is to eradicate extreme poverty and hunger by 2015.⁹ Extreme poverty has been described simply as “poverty that kills.”¹⁰ On a more quantitative level, it is defined as subsisting on an income of less than one dollar per day.¹¹ Under the MDGs, hunger is measured by (1) the number of children under the age of five who are underweight and (2) the proportion of the population which does not meet a “minimum level of dietary energy consumption.”¹² With these measures in mind, MDG 1 seeks to halve the number of people who live under such conditions by 2015.[†]

[†] For a breakdown of targets and indicators of MDG 1 as per the UN road map, see Appendix A.

Senegal and MDG 1 in the Context of sub-Saharan Africa

Ranked at 156 of 177 countries in the Human Development Index, Senegal faces daunting challenges in its effort to reach MDG 1. While it was one of the fastest-growing sub-Saharan economies from 1995-2000, since 2006, it has seen a significant decline in growth and an increased federal deficit.¹³ In 2007, GDP growth resumed, reaching 4.8% as a result of increased service sector and telecommunications activity.¹⁴ However, the country's current annual GDP growth has declined to 3.3%.¹⁵

According to the World Bank, the "typical" sub-Saharan African economy must grow at a rate of approximately 8.2% in order to halve poverty by 2015.¹⁶ The recessionary GDP gap here is palpable, so much that some would argue that the target is unrealistically high and poises the nation for failure.[‡] However, marked recent progress has been seen in some Sub-Saharan nations¹⁷, which would indicate that with the right combination of resources, policy, and development initiatives, Senegal may be able to achieve MDG 1 by the target date.

Extreme Poverty

At the current growth rate, Senegal and sub-Saharan Africa on the whole will not meet MDG 1 by 2015. While the global proportion of people living in extreme poverty declined from one third of the world's population in 1990 to 19% of the world's population in 2004, most of this progress is attributed to eastern and southeastern Asia; sub-Saharan Africa saw 41.1% of its population still living in extreme poverty in 2004 (a drop of 5.7 percentage points from 1990).¹⁸ Although poverty is declining in absolute numbers, relative inequality is rising. In sub-Saharan Africa, the poorest quintile of the population only consumes about 3 percent of goods and services.¹⁹

[‡] There is significant debate as to whether the MDGs are a product of "goal inflation." As Clemens, et al. note, "only five countries managed to sustain a seven percent growth average" between 1985 and 2000. These data demonstrate a perceived "failure" of the region to reach exceedingly high, and potentially unrealistic, targets. (see note 2, Clemens et al.).

The modest progress that has been made in sub-Saharan Africa is largely attributed to rising commodity prices, which alone will not effect equitable growth. Additionally, high food prices diminish available funds for social services and human capital investment, such as health care and education.²⁰ Ultimately, high commodity prices could push as many as 100 million more people into extreme poverty.²¹

Hunger

Africa is the only region that has actually seen per capita food production decline over the past 30 years.²² If current levels of hunger persist, the goal to end hunger will fall short by some 30 million children, many of whom reside in sub-Saharan Africa.²³ While the region has seen a decline in the number of children under the age of five who are underweight, 28% of children in the region are still underweight.²⁴ In Senegal, 16% of children under the age of five are underweight.²⁵

Food insecurity[§] in sub-Saharan Africa is largely a rural crisis, and Senegal is no exception to this trend. Overall, children in rural areas are twice as likely as children in urban areas to fall into this category.²⁶ A recent study by the U.S. Congress confirms other claims that food insecurity in sub-Saharan Africa is largely linked to “low agricultural productivity” and “limited rural development.”²⁷

Efforts to reduce hunger must be considered in the context of rising food prices, increasing numbers of urban dwellers, population growth, an expanding biofuels industry, and failing agricultural policy.²⁸ Senegal has seen recent rises in food prices, a general trend of migration to urban centers,^{**} population growth (2.6% annually²⁹), and burgeoning biofuel activity. While not individually condemning, in combination with one another, these factors have been shown to exacerbate poverty and hunger in other sub-Saharan African nations.

While higher food prices initially seem to be a boon as an incentive for increased agricultural production, they ultimately hit “food insecure” populations the hardest.³⁰ West Africa has been

[§] “Food insecurity” as defined by the UN Food and Agriculture Organization (FAO) consists of “the lack of access of all people at all times to sufficient, nutritionally adequate, and safe food, without undue risk of losing such access.” (see note 22, p. 4).

^{**} 50% of the population now lives in urban centers (Bruntrup et al., p. 23).

particularly affected by this, exemplified in the extreme form of food riots in Senegal and neighboring countries.³¹ Due to the high price of imported wheat and rice^{††}, people took to the streets en masse in 2007, and again in March and April of this year.³² The Senegalese government has responded to rising food prices through subsidies, which have contributed to a rising deficit (expected to reach 4.9% of Senegal's GDP for 2008).³³ The IMF warns that higher fuel and food prices will result in higher net imports for the country, which will diminish overall growth.³⁴ According to a 2008 IMF report, Senegal is projected to spend 39.4% of its reserves importing food and oil.³⁵

Biofuels are a decidedly mixed perk. While this growing industry offers new potential for employment, energy independence, and new forms of environmental protection, the widespread production of biofuels can diminish crucial and scarce sources of food, cultivable land, and water. Senegal does invest in the biofuels industry and has been replicating successful projects.³⁶ In September of 2008, Senegal was awarded a monetary prize by a grant program advocating sustainable development in agriculture. The project allows farmers and fishermen from 40 communities to produce biofuel from seed oil and will reduce their transportation costs going to and from the market.³⁷ While such programs demonstrably benefit farmers with cheap fuel that is less harmful to the environment, the larger impact of expansion of biofuels in a region with food shortages is cause for concern.

Employment

Poverty, food insecurity, and unemployment are interdependent afflictions. The World Bank maintains that income in developing nations is dependent upon agriculture, and that agricultural income in particular is critical for food security. Additionally, the Bank claims that “poverty is a main immediate cause of food insecurity in sub-Saharan Africa.”³⁸ Thus, greater levels of employment will play a key role in reducing poverty and food insecurity. Employment increases must be realized across industries; for

^{††} Rice prices have more than doubled in the past year. (Naomi Schwarz, “Senegalese farmers hope trickle of water can help them flood agricultural market,” *US Fed News Service, Including US State News*, Washington, D.C., 21-Jul 2008.)

Senegal this necessitates addressing employment goals in agriculture, but also in industry^{††} and the service sector, which comprise 14.7%, 22.1%, and 63.2% of GDP, respectively.³⁹

However, it is difficult to set blanket target employment ratios for development because the desired proportion of employed individuals varies from country to country depending on income and productivity. Income growth has a positive correlation with productivity; as productivity rises, incomes rise. While other regions including Asia and the Commonwealth of Independent States have seen a rise in productivity and a simultaneous decline in the proportion of working poor, sub-Saharan Africa has not enjoyed such increases in productivity and thus is still home to a large number of the working poor.⁴⁰ In more developed nations, fewer employed individuals are needed to maintain satisfactory growth due to the higher productivity and higher incomes of those who are employed.⁴¹

In sub-Saharan Africa, more than half of the working population is considered to be “working poor,” earning less than one dollar per day⁴². While 79% of working age males are employed in this region, only 55% of working age women are employed, reducing the number of potential wage earners⁴³.^{§§} Wage earners in sub-Saharan Africa also find themselves widely employed in what are considered “vulnerable” positions that tend to offer little job security; as many as 75% of wage earners in sub-Saharan Africa are vulnerable to sudden unemployment.⁴⁴

^{††} Industries such as fertilizer and irrigation equipment manufacturing have a direct link with agricultural development.

^{§§} Social and cultural norms may be such that a given workforce is dominantly male. However, in situations of depressed income and extreme poverty, having more than one wage earner per family may mean the difference between meeting basic needs or not. This paper does not seek to impose any value judgment on gender norms in a given society, but merely to acknowledge that the potential workforce is diminished by not engaging a significant number of able-bodied women in gainful employment.

Senegal's Poverty Reduction Strategy

In November of 2007, Senegal was approved for the IMF's Policy Support Instrument (PSI), which is essentially a monitoring program with no promise of financial aid from the IMF. The PSI measures progress in development through periodic reviews; if the country in question is found to be on target with respect to its policy program, the IMF certifies this compliance to donors^{***}, which is effectively a nod of approval for increased funding. In June of 2008, Senegal was indicated to be satisfactorily on target with respect to the PSI.⁴⁵ Despite receiving this approval, the IMF's representative in Senegal expressed serious concern about the declining fiscal situation of the country for 2008.⁴⁶

Senegal's development strategy is implemented through Poverty Reduction Strategy Papers, (PRSPs) which are effectively plans that outline specific development problem areas and goals^{†††}. The first PRSP for Senegal, written in 2002, noted slow growth from 1979-1993, with an economic contraction in 1993. In 1994, following stabilization of its currency, the CFA franc, the country saw 2.9% growth, followed by an average of 5% growth from 1995-2001. Meanwhile, the deficit was reduced, as were debt payments, and inflation was kept at bay. Despite this growth, poverty was still widespread. More than half the population was determined to be illiterate, with over 70% of women falling into this category. Universal primary education was far from being realized. While Senegal has been looked to as a model for addressing the HIV/AIDS crisis, endemic diseases, malnutrition, poor hygiene and sanitation, and food shortages were all shown to be widespread. The percentage of households below the poverty line reached 57.9% as of 1994. This figure was estimated to be at 53.9% in 2001. Domestic agricultural production was able to provide for only 52% of the country's food requirements.⁴⁷

Senegal's PRSP I concluded that despite the positive economic growth from 1995-2001, agriculture and industry growth did not result in wide scale job creation, and the poorest of the poor did

^{***} Senegal's donors include UN agencies, the EU, individual donor countries, the African Development Bank, USAID, among others. (see note 29, the World Bank Senegal Country Profile.)

^{†††} The World Bank alone has approved 122 projects for Senegal, valued at US \$3 billion. The International Development Association (IDA), a sub section of the Bank, is, as of August 2008, supporting 20 ongoing projects valued at US \$788 million. (*Ibid.*)

not benefit from growth. This moved development discussions towards a “pro-poor” growth model for the second PRSP. Senegal’s PRSP II for 2006-2010 is centered mainly on rural poverty and healthcare. The benchmark for annual GDP growth was targeted at 7% (yet Senegal’s projected average growth for 2008 is estimated to reach between 4% and 4.5%⁴⁸). Five prioritized areas in which the government is contracting programs out to private sector groups include: agriculture, textiles, fishing, IT/telecommunications, and tourism.⁴⁹ Health care and education failures have been identified as serious threats to human capital that will need to be addressed in order to realize key development programs.

Employment was identified as the central focus for development policy. Specifically, targets for addressing the unemployment crisis included generating employment opportunities for the poor, improved management, increased efficiency and transparency, and encouragement of self-employment in both rural and urban areas.⁵⁰ The tactic identified for engaging a pro-poor employment-centered development plan was to engage local residents in public works projects, particularly young people. Complimentary strengthening of human capital through education and health care were identified as the bedrock for this change.⁵¹

In the PRSP II, the strategic pillars of the PRSP I were maintained with a new emphasis on pro-poor growth, and an Accelerated Growth Strategy (AGS). The AGS sets a benchmark of 7% annual GDP growth through labor-intensive production.⁵² Transportation and energy were newly assessed and strategies were developed to address those particular concerns. Better access to core social services, disaster prevention and management, and good governance were also articulated as key pillars for the second PRSP.⁵³ The PRSP II concluded that, with its revised strategy, Senegal could potentially see 12.6% growth⁵⁴ for the 2006-2010 period. Contrary to this projection, in 2007, average annual growth reached 4.8%, and is projected to reach a maximum of 7.1% on average for the 2007-2011 period.⁵⁵

PRSP II ultimately found that performance on the first PRSP was satisfactory. Most of the targets were achieved in 2004. Growth was sustained, but stunted due to external shocks such as flooding, drought, and locust infestation, among other factors (hence the introduction of a new pillar of disaster management). Fifty percent of the budget during the PRSP I implementation period was allocated to the

development of human capital, specifically for education and health. Ultimately, however, the target growth benchmark of 7% was not achieved, indicating that prevailing rates of growth would not enable Senegal to achieve the MDGs by 2015.⁵⁶

Limited growth was determined to be a result of structural barriers in the private sector, including barriers to new enterprise creation, legal and judicial delays, high production costs, poor access to financing and property, and non-diversified production.⁵⁷ GDP growth saw a noted decline in 2002 due to lower agricultural production, which itself has been attributed largely to irregular rainfall in the form of droughts and flooding.⁵⁸

One predominant barrier to growth signaled by the PRSP II is that Senegal continued to be a net importer throughout 2006. The PRSP II projected that exports would increase by 6.6% and imports would expand by 7.5%, which would maintain this trend.⁵⁹ Indeed, in 2007, Senegal had a negative export balance of US \$1.9 billion.⁶⁰ More alarmingly, Senegal is a net food importer. Food consumption in Senegal has shifted away from traditional coarse grains (such as millet) towards costly imported rice from Asia.⁶¹ With rising food prices in the region, this is not a sustainable import-export strategy, and has demonstrably failed to sustain the population with abundant food staples.

Reversing Senegal's Net Food Import Status

The aim of a “pro-poor economic growth”⁶² model in Senegal is to expand growth while reducing poverty. Due to Senegal's limited currency reserves and high deficit spending, however, development progress hinges heavily on foreign aid. The UN has called for 0.7% of “developed” nations' GNP⁺⁺⁺ to meet development demands.⁶³ Despite this, aid from donor countries alone is not sufficient to finance the dramatic development efforts needed to realize 8% annual GDP growth to achieve MDG 1 by 2015.^{\$\$\$} To acquire such revenue, Senegal must curb deficit spending and favor consumption of domestic goods where possible.

One critical way to achieve this is to reduce imports, specifically with regard to food. Strong dependence on food imports jeopardizes food security, reduces potential income and job opportunities in the agricultural sector, and stymies growth.⁶⁴ Placing emphasis on stronger domestic food production will diminish import costs, expand opportunities for new business ventures, create jobs, and foster overall food security and economic growth.

Senegal has a particularly debilitating dependence on costly Asian rice imports, importing the most rice of any nation in Africa, after Nigeria.⁶⁵ The Senegalese diet began to see a shift towards rice in the colonial era. The country thrust the majority of its agricultural production efforts into groundnuts at the expense of millet, which had been the main grain staple. In response to the unavailability of millet, Senegal began to import rice from Indochina at a time when it was relatively cheap. Senegalese rice consumption has increased by approximately 1,000% since gaining its independence in 1960.⁶⁶ Domestic food shortages in the early seventies lead to an increased demand for rice imports. In the 1990s, when Senegal executed structural adjustment reforms at the behest of the IMF, its domestic food production

⁺⁺⁺ Some studies note that to meet this benchmark, financial aid from developed nations must be doubled from current levels in order to reach approximately \$50 billion per year. There is some debate as to whether costing studies wrongly characterize the potential to achieve the MDGs as causally linked to financial aid more so than development strategy or other factors. (see Clemens et. al, note 2).

^{\$\$\$} Another fast-growing trend in development finance is microcredit. For a brief discussion of this trend in Senegal, see Appendix B.

was rendered less competitive. Government financial support of domestic rice production was curtailed while foreign suppliers (Thailand in particular) were able to flood the market with rice, for which there is now a heavy consumer preference. ****⁶⁷ Senegal thus saw an absolute spike in rice imports in the mid 1990s. Simultaneously, domestic rice production saw a steady decline from 1993 to 1998, followed by a slight increase in the late 1990s.⁶⁸ Until 1996, broken rice imports were subject to import quotas. Senegal now has one of the lowest rice tariffs in the region as a consequence of its adherence to the Common Exterior Tariff, imposed by the West African Economic and Monetary Union (WAEMU).⁶⁹

Since the late 1990s, domestic rice production has been steadily declining. Today, Senegal produces a mere 15% of its domestic rice demand.⁷⁰ Most of that is in the form of broken rice, which is an inferior, less costly rice by-product.⁷¹ Senegalese demand for rice is unwavering and increases in step with its expanding population and increased urbanization.^{††††} Even in the face of rising prices, consumers tend to eat less of other food stuffs such as meat and wheat in order to maintain rice consumption levels.

**** The average person in Senegal consumes approximately 93 kilograms of rice per year (Lançon and Benz, p. 4).

†††† Rice has become a favorable staple because it takes significantly less time, labor, and fuel to prepare than millet. (Bruntrup et al.)

Pro-poor Rice Production Projects

Any successful development strategy for increasing food security in Senegal must incorporate a heavy emphasis on domestic rice production. Supply-side structural adjustment reforms such as trade liberalization and deregulation have had the undeniable effects of increasing rice imports and diminishing domestic rice production and are demonstrably not part of a pro-poor growth strategy. However, imposing higher tariffs would amount to a serious contradiction to over a decade of trade policy, would jeopardize aid from donor nations, and would likely have deleterious effects on overall growth.

Demand-side solutions such as increased government spending on public works projects and incentives for innovation and investment have the ability to produce the long-term growth needed to attack extreme poverty.⁷² Through such policies, Senegal has the ability to modernize its domestic rice industry to compete with the prices and quality of imported rice. In order to do this, the nation needs enact policy that funds innovative projects with the aim of spurring agricultural modernization and improved production. This policy response will facilitate the growth required to reduce extreme poverty and improve food security by reversing Senegal's status as a net food importer.

Senegal is one of 13 countries to implement what is considered to be one of the leading programs to address agricultural development, the Comprehensive Africa Agriculture Development Program (CAADP).⁷³ This program has been endorsed by the African Union and is facilitated by a roundtable discussion at the country level. Under this program, governments are to develop their own agricultural development strategy, coordinate assistance from donors, and implement projects. The responsibility and inertia to carry out agricultural development projects are largely in the hands of the Senegalese government and civil society.

One such project in the region of Dap Dior provides farmers with rain-fed drip irrigation year-round.⁷⁴ In terms of rice production, high input and water intensive irrigation systems in West Africa have not proven to be efficient or profitable.⁷⁵ Rain-fed rice production systems are generally more profitable

and allow for a stronger comparative advantage.⁷⁶ Domestic Resource Cost^{****} studies indicate a healthy potential profit margin for rain-fed rice production.

The rain-fed drip irrigation project in Dap Dior is funded by the Israeli government and regional and international aid organizations. In this system, when rain begins to fall, farmers commence sowing seeds. The system employs a specially-configured design of drip irrigation engineered specifically for rain-fed water. Farmers can control the flow of water by means of a central tap which has the capacity to distribute water evenly across an entire field while reducing evaporation. Because the irrigation source is wholly derived from rainfall and due to the highly efficient design of the drip equipment, water costs are next to none. In addition, the minimal labor and the low maintenance involved (the system can function for up to five years without maintenance) allow farmers to spend time performing other work while reducing costs.

The success of this program is demonstrated by the fact that farmers who have used it see a large enough profit margin to purchase new systems for other fields. One potential weakness is that if severe drought ensues, the system will not provide enough water to sustain crops. However, in the event of severe drought, even with traditional irrigation methods, crops are unlikely to flourish. Ultimately, this system provides an innovative means of irrigating crops through a combination of replicable rain-fed technology which is sustainable, provides a healthy profit margin, and increases efficiency.

Umbrella projects are another way to spur investment and innovation. These types of initiatives define a specific mission with benchmarks for food production and award innovative proposals with funding. One example of this type of effort is GOANA.^{§§§§} This program seeks to increase the production of domestic grains including millet, black-eyed peas, cassava, corn, and, notably, rice. A portion of the program is also dedicated to the expansion of a Senegalese wheat industry.

GOANA is dually supported by government and private financing. Awards are given on a competitive basis and successful projects (those that yield high levels of food production) are replicated.

^{****} DRC is a measure of comparative advantage.

^{§§§§} This is an acronym for the French title of the program, “Grande offensive agricole pour la nourriture et l’abondance” or “Large scale agricultural push for food and abundance.”

Many of the participants in GOANA are located in the Senegal River Valley, which is largely comprised of land that requires rehabilitation in order for it to be useful for crop cultivation.**** GOANA initiatives have largely been centered on innovative irrigation efforts and sustainable use of water sources that have historically been under-utilized in formal irrigation efforts. One such example is the Guiers Lake, which has been identified as both a potential source for irrigation, and also a reserve of potable drinking water for the capital of Dakar.⁷⁷ This type of project serves to foster much-needed competition and innovation in development leading to a net increase in domestic food production.

Projects such as GOANA and those in Dap Dior will be crucial to effect a sustained increase in domestic food production. In addition to funding for these projects, technology, seeds, fertilizer, and irrigation equipment are critical. These are all factor markets that can be expanded domestically as an opportunity for new business development and job creation. Every effort should be made to produce fertilizer and build irrigation equipment domestically. This will require coordinated policy that takes into account both agricultural and industrial development plans as a cohesive poverty reduction strategy.

**** Much of Senegal's cultivable land is of poor quality due to long-term non-sustainable groundnut production. (Bruntrup et. al, p. 24).

Conclusion

While Senegal saw significant progress in the first generation of its Poverty Reduction Strategy, it has since seen a decline in GDP growth. Extreme poverty and hunger continue to plague a significant portion of the population, particularly in rural areas. The interconnectedness of food insecurity, food import dependence, unemployment, and overall GDP growth mandate a holistic policy approach that factors each of these hurdles into its development strategy. Supply-side solutions such as trade liberalization have not benefited the poorest of the poor, who continue to struggle for access to a minimum level of dietary sustenance. Senegal is not alone in its development predicaments, but it does have a particularly extreme dependency on rice imports. Investment in innovative rice production projects should play a central role in agricultural policy initiatives. The profits to be gained from agricultural modernization and greater efficiency will fundamentally reduce deficit spending in the form of food imports, promote greater food security, and raise employment levels in the agricultural and industrial sectors. Achieving MDG 1 is possible only with a commitment to policy and funding that pursues innovation, investment, and modernization.

Appendix A

Table 1 Millennium Development Goal 1	
Goal 1. Eradicate extreme poverty and hunger	
<i>Goal and targets</i>	<i>Indicators</i>
Target 1. Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	1. Proportion of population below \$1 per day
	2. Poverty gap ratio (incidence x depth of poverty)
	3. Share of poorest quintile in national consumption
Target 2. Halve, between 1990 and 2015, the proportion of people who suffer from hunger	4. Prevalence of underweight children (under five years of age)
	5. Proportion of population below minimum level of dietary energy consumption

Source: UN Road map towards the implementation of the United Nations Millennium Declaration, Sept. 2001

Appendix B: Microcredit and Philanthrocapitalism

While aid has played a central role in development since before the articulation of the MDGs, a new generation of financing that embraces novel sustainable funding alternatives should be adopted for long-term growth. Government spending has been shown to stimulate growth and should remain a central component of investment, but it is limited when deficit spending is already high, particularly for developing nations.

Indeed, with the structural adjustment reforms of the 1990s, the Senegalese government terminated numerous agricultural cooperatives. This resulted in the birth of new development financing initiatives in the form of microcredit. Since 1993, so-called village banks have been springing up in rural Senegal.⁷⁸ These are largely run by Wolof women who began money lending practices as an offshoot of a Women in Development (WID) initiative modeled after Grameen Bank, a Bangladesh microcredit enterprise.^{††††}

Microcredit lenders have the capacity to provide small sums of startup capital or critical raw materials to people disenfranchised from traditional banking systems. However, these types of initiatives will not flourish without encouragement on a policy level. As identified in Senegal's PRSP II, in the past, government bureaucracy and red tape limited business growth. A comprehensive development strategy should facilitate innovative financing such as microcredit, in addition to government spending and international aid. However, regulation of such microcredit enterprises will be crucial in protecting against predatory lending practices.

This opens up a broader discussion of "philanthrocapitalism," which seeks to maximize social return on development investment.⁷⁹ This model could foster a more long-term, fluid investment and development strategy, but may lead to skewed results in terms of which projects are chosen for development. That is, riskier ventures may be lost in the fray. This would indicate that a combination of

^{††††} Grameen Bank was founded in 1976 and provides savings, loan, and credit services to those without access to formal banking institutions. Loans are repaid on the basis of trust, accountability, and participation. The microcredit lender has a repayment rate of over 98% percent; for microcredit in Senegal, see also: PAMECAS, <<http://pamecas.org>>.

government spending, aid, microcredit, foreign direct investment, and philanthropically-bent investment should provide a joint financial solution to development financing.

Notes

¹ United Nations, "Road map towards the implementation of the UN Millennium Declaration. Report of the Secretary General," G.A. UN Doc. A/56/326, 6-Sept 2001, p. 56.

² Michael Clemens, et al., "Development Goals and Indicators: The Millennium Development Goals, Aid Targets, and the Costs of Over-Expectations," *Sustainable Development Law & Policy*, American University, Fall 2005.

³ United Nations Development Program, 2007/2008 Human Development Report: Senegal.

⁴ Poverty Reduction Strategy Paper II, the Republic of Senegal, September 2006, p. 8.

⁵ See note 2, *supra*, p. 3.

⁶ United Nations, "The Millennium Development Goals Report," 2008, p. 7.

⁷ United Nations Millennium Declaration, G.A. Res. 55/2, UN Doc. A/RES/55/2, 8-Sept 2000.

⁸ *Ibid.*

⁹ See note 1, *supra*, p. 56.

¹⁰ UN Millennium Project, "Investing in Development: A Practical Plan to Achieve the Millennium Development Goals," New York, 2005, p. 4.

¹¹ See note 1, *supra*, p. 56.

¹² See note 1, *supra*, p. 56.

¹³ The World Bank, "Senegal – Country Brief," Sept. 2008.

¹⁴ *Ibid.*

¹⁵ See note 2, *supra*, p. 3.

¹⁶ See note 2, *supra*, p. 12.

¹⁷ Sha Zukang, "Devising a shared global strategy for the MDGs: building on successes towards 2015; Millennium Development Goals," *UN Chronicle*, Vol. 44 No 4, p. 14, December 2007; see also the United Nations, "The Millennium Development Goals Report," 2008.

¹⁸ The United Nations, "The Millennium Development Goals Report," 2007, pp. 4-5.

¹⁹ *Ibid.*, p. 6.

²⁰ See note 4, *supra*, p. 8.

²¹ *Ibid.*

²² The MDG Africa Steering Group, "Achieving the Millennium Development Goals in Africa Fact Sheet," June 2008, p. 1

²³ See note 4, *supra*, p. 8.

²⁴ *Ibid.*

²⁵ The World Bank, "Senegal at a Glance," 24-Sept. 2008, p. 1.

²⁶ See note 4, *supra*, p. 13

²⁷ "Insufficient Efforts by Host Governments and Donors Threaten Progress to Halve Hunger in Sub-Saharan Africa by 2015," *International Wire*, 30 May 2008, p. 2.

²⁸ See note 4, *supra*, p. 8.

²⁹ MDG Monitor, <http://www.mdgmonitor.org/factsheets_00.cfm?c=SEN>, accessed 25-Nov, 2008.

³⁰ See note 17, *supra*, p. 10.

³¹ Spiegel Online International, "Critique Mounts against Biofuels," 23-Jan 2008; Democracy Now, "Stuffed and Starved: As Food Riots Break Out Across the Globe, Raj Patel Details "The Hidden Battle for the World Food System," 8-April 2008.

³² "Côte d'Ivoire: Food Price Hikes Spark Riots," <www.allafrica.com>, 31-Mar 2008.

³³ "Senegal economy: Outlook - Slow progress in structural reforms," *EIU ViewsWire*, 22-Sept. 2008.

³⁴ "Africa economy: IMF calculates impact of fuel and food prices," *EIU ViewsWire*, 30-Jul 2008.

³⁵ *Ibid.*

³⁶ Science and Development Network, "Brazil and India join Senegal for biofuel production," 1-Nov 2006.

³⁷ The World Bank, "Five Projects in Africa Awarded Prizes in 2008 Development Marketplace Competition," 29-Sept 2008.

³⁸ See note 27, *supra*, p. 7

³⁹ See note 25, *supra*, p. 1.

⁴⁰ See note 4, *supra*, p. 10.

⁴¹ *Ibid.*

⁴² See note 4, *supra*, p. 11.

⁴³ *Ibid.*

⁴⁴ See note 4, *supra*, p. 12.

⁴⁵ See note 33, *supra*.

⁴⁶ "Senegal economy: IMF warns of deteriorating fiscal position," *EIU ViewsWire*, 20 Jun 2008.

⁴⁷ The Republic of Senegal, "Poverty Reduction Strategy Paper," 2002, p. 7.

⁴⁸ See note 46, *supra*.

⁴⁹ See note 33, *supra*.

⁵⁰ *Ibid.*, p. 40.

⁵¹ *Ibid.*, pp. 40-41.

⁵² See note 46, *supra*.

⁵³ See note 4, *supra*, pp. 2-3.

⁵⁴ *Ibid.*, p. 32

⁵⁵ See note 13, *supra*.

⁵⁶ See note 53, *supra*, p. 9.

⁵⁷ *Ibid.*

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*, p. 32.

⁶⁰ See note 25, *supra*.

⁶¹ Daniel Magnowski, "Sahel Africans face hunger despite bumper harvest," Reuters Africa, 27-Nov 2008.

⁶² See note 2, *supra*.

⁶³ *Ibid.*

⁶⁴ Michael Bruntrup, et. al, "Food-importing countries in liberalized world trade: the rice market in Senegal," *The International Journal for Rural Development*, January 2006, p. 22.

⁶⁵ Frédéric Lançon and Hélène David Benz, "Rice imports in West Africa: trade regimes and food policy formulation," presented at the 106th Seminar of the European Association for Agricultural Economists (EAAE), October 2007, p. 4.

⁶⁶ See note 64, *supra*, p. 23.

⁶⁷ See note 65, *supra*, p. 3.

⁶⁸ *Ibid.*, p. 9.

⁶⁹ *Ibid.*, p. 5.

⁷⁰ *Ibid.*

⁷¹ See note 64, *supra*, p. 23.

⁷² See note 2, *supra*, p. 8.

⁷³ See note 22, *supra*, p. 6.

⁷⁴ Naomi Schwarz, "Senegalese farmers hope trickle of water can help them flood agricultural market," *US Fed News Service, Including US State News*, [Washington, D.C., 21-Jul 2008.

⁷⁵ See note 65, *supra*, p. 13.

⁷⁶ *Ibid.*

⁷⁷ Grand Offensive Agricole pour la Nourriture et l'Abondance, <<http://goana-senegal.org/>>, accessed 8-Dec, 2008.

⁷⁸ Donna Perry, "Microcredit and women moneylenders: The shifting terrain of credit in rural Senegal," *Human Organization*, Spring 2002.

⁷⁹ "The birth of philanthrocapitalism," *The Economist*, 25-Feb, 2006, Vol. 378, Issue 8466, p. 8-11.