

*Along the River Soumsoum:  
Urban Agriculture in Ngaoundéré*

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## Abstract

With increasing urbanization large amounts of poverty is shifting from rural to urban centres, posing problems of unemployment and access to food. Due to this dynamic, urban poor all over the world have begun cultivating food in open areas in cities as a means of survival and in an attempt of securing food. With this in mind, this paper seeks to establish the place that urban agriculture holds in the small but rapidly expanding city of Ngaoundéré, in the Adamaoua Province of Cameroon. This is done through exploring the form, function and benefits of urban agriculture for those that partake in it on a daily basis. This paper also addresses the largest problems faced and the associated risks of urban agriculture compounded by an unsupportive system, as well as considerations for ameliorating the present situation of urban agriculture in Ngaoundéré. Currently, urban agriculture in Ngaoundéré poses a potential public health risk if problems faced by farmers remain unaddressed. But if the urban agriculture system is enabled it has the potential of creating work, food security and nutrition to the urban poor of Ngaoundéré.

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Section I: Introduction

The town of Ngaoundéré is parched and dusty during the dry season, with many shades of brown that meet the eye. But if one wanders along the south-east part of town, where the small River Soumsoum runs, one will see lush green gardens springing forth, filled with lettuce, *legumes*<sup>1</sup>, tomatoes, *condiments*,<sup>2</sup> large green leaves of coco yams and banana trees. It is here, in this lush oasis where these urban peasants seek a living, working long hot days in the sun, preparing the limited patches of unfertile earth for small gardens that will hopefully supply families with food, markets with abundance, children with paid school fees, and mommas with soap: much hope is placed on these patches of earth.

To many the two words ‘urban agriculture’ may seem like an unlikely combination but to a growing population of the urban poor all over the world but for those in the world that practice agriculture in the *milieu urbain*<sup>3</sup> it is an act of survival and a source of indispensable food and income for the farmers and their families. In spite of the challenges of farming in urban areas, urban peasants exist around the world and provide food to about a quarter of the world’s urban population.<sup>4</sup>

In general, agricultural production in cities arises from poverty, lack of access to food and poor infrastructure that requires that perishable foods are grown close to the markets. For this reason urban agriculture forms a series of concentric zones spiralling outward from the central part of the city. This is due to poor infrastructure, inability to move products long distances efficiently and ever expensive petroleum prices that requires that the most perishable products are grown closest to the market. Within urban areas there are three possible types of agriculture practiced; Ngaoundéré is no exception to this.

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<sup>1</sup> A catch all phrase referring to a variety of green leafy vegetables such as zoom, fuléré, falong, and melon leaves

<sup>2</sup> Condiments generally refers to: parsley, scallions, basil, and celery

<sup>3</sup> ‘Middle of the urban area’

<sup>4</sup> *Growing Crops in Towns: A Response to the Challenge of Urbanization*, IRAD Website

The first type of urban agriculture is known as ‘backyard agriculture’, and refers to people who cultivate the spare patches of earth that surround their houses. Often people who are partaking in this form of agriculture might also be cultivating larger spaces of land outside of town and use what they grow to supplement what they purchase at the market. People practicing ‘backyard agriculture’ typically own the land that they are cultivating on. The second type of agriculture that one can find in cities is known as peri-urban agriculture because it takes place around the periphery of a town or city, either within the city limits or in the villages that immediately border the town. Peri-urban agriculture contributes approximately between 70--80% of perishable and semi-perishable products to the town of Ngaoundéré.<sup>5</sup> Peri-urban areas outside of Ngaoundéré grow things such as sweet potatoes, tomatoes, Irish potatoes, ginger, green maize, cabbage, carrots, and a small amount of legumes.<sup>6</sup> For the most part people practicing peri-urban agriculture own the land that they farm on as it is generally inherited and part of the family legacy.<sup>7</sup>

The third type of agriculture practiced is known as urban agriculture because it is practiced in the central area of cities and towns. Spare patches of land close to water sources are perfect areas for urban agriculture exploitation. In Ngaoundéré urban agriculture contributes approximately between 20—30% of perishable products to the market.<sup>8</sup> People who grow in the urban area in Ngaoundéré are typically women who cultivate vegetables such as folléré, lalo, zoom, amaranthe, melon leaves, lettuce, carrots, tomatoes, parsley, basil, scallions, and mint, mostly for the market but also for household use. In contrast to peri-urban agriculture, people that cultivate in the city for sale at the market, tend to grow more intensive, higher nutrient and more perishable crops. This group of farmers typically have very limited rights to the land and in Ngaoundéré generally rent the land that they grown on from

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<sup>5</sup> Maurice Gandebe, Formal interview, April 20, 2007

<sup>6</sup> Market Women, Informal Interview, April 23, 2007

<sup>7</sup> Maurice Gandebe, Formal interview, April 20, 2007

<sup>8</sup> *Ibid.*

the state or from large land owners, although there are some that are fortunate to own the land that they cultivate on. For the purposes of this paper I chose to focus on those that cultivate in the urban zone of Ngaoundéré, so as to better understand the human face of those that grow food in the city for their own survival and for the urban population.

It is with the above in mind that this paper seeks to understand the organization, face and form of urban agriculture in Ngaoundéré as well as the major benefits and problems that they face through their work. By understanding the role of urban agriculture, as well as the difficulties and benefits of urban farmers in Ngaoundéré is important today so that all actors: local government officials, non-governmental organizations, farmers, land owners, market vendors and consumers can work together in the days to come so as to ensure that this specific group of the urban poor can best be supported so that they are able to continue cultivating perishable products, thereby benefiting farmers and avoiding larger public health consequences.

I will begin by explaining the methodology used to gather my findings. I will then briefly talk about the importance of urban agriculture in a global context as related to food security, urbanization and poverty and transition to talk about the town and population growth of Ngaoundéré. In the next section I will seek to convey the layout and the system of urban agriculture in Ngaoundéré as well as share stories about urban farmers as a means of illustrating those involved in urban agriculture as well as the different levels on which one partakes in urban agriculture. In addition I will discuss the benefits for the farmers and the community at large that urban agriculture provides (both realized and potential). Next I will address the difficulties and problems that urban agriculturalists face as identified by the farmers themselves as well as realized and potential risks of urban agriculture for the town of Ngaoundéré along with the role, or lack thereof, of local authorities. And finally are some suggestions that

might aid in ameliorating the problematic aspects of urban agriculture in Ngaoundéré. I will conclude the paper by making recommendations for future studies in this area.

## Section II: Methodology

When I began this project I badly wanted to connect the act of urban agriculture into a larger global context. I had wished to frame urban agriculture in a positive light and show its potential for aiding those that are food insecure and living in poverty, as well as to look at the role of land rights in relation to urban agriculture. I quickly realized that this was far too abstract and large a project for the three weeks time that I had in Ngaoundéré. Needless to say I shifted frames, and the result is a paper that seeks to understand the current organization, form and face in Ngaoundéré, in hopes that with the growing global awareness of urban agriculture there will also be an increasing local awareness and responsibility taken to sincerely support those existing in incredibly marginalized positions in society. I therefore focus on the structure and people who practice urban agriculture as well as the largest problems faced by urban farmers and the risks involved. My research also evolved into including the positions of local authorities as concerning their views and perspectives on urban agriculture. Although the final product is not what I had anticipated, the experience of this research has proven to be a significant learning experience as it has allowed me to explore urban agriculture in a whole new context and from multiple perspectives as well as forced me to re-evaluate my initial enthusiasm.

All of my research was conducted through interviews as well as extensive observation in the areas where urban agriculture is being practiced. I spent the first week and a half at the *Quartier d'Agriculture* and *Camp Prison*, as well as the areas under cultivation that are strung along the river in between these two spots. I would arrive early in the morning, before the sun had made his ascent into the sky, my hands ready for work and my ears for listening. I tended to find my way about, wandering here and there, beginning conversations with those resting

under trees or offering to lend a hand with the planting of corn or harvesting of vegetables. My questions tended to be quite simple and for the most part sought to understand how these people came to find themselves growing food here in Ngaoundéré, as well as what they grow and the major challenges that they face. I would generally file the information offered to me in my head and as soon as the conversation was complete I would scribble down what had been shared. I chose this approach because I found that peoples willingness to share in a conversation was greatly altered when I had pen and paper in hand. For this part of my research I conducted 30 informal and semi-formal interviews with people working on the farm. I also had a handful of conversations with women selling *legumes* and *condiments* at the *Petit Marché*.

For the second part of the second week I conducted formal interviews, for which I would arrive with questions in hand and would weave and wind my way through conversations, grasping for the full depth of what was being said, as men in relatively powerful positions filled my ears with their thoughts. In this fashion I interviewed the Mayor of Ngaoundéré, the Delegate for the Minister of Agriculture, the past and current ‘*chef*’<sup>9</sup> at the *Quartier d’Agriculture*, Adamaoua’s representative for the *Voix du Paysan/SAILD*, an urban agricultural researcher at IRAD-Wakwa, and the administrator for the Delegate of the Minister of Urban Development.

Finally, it was a very conscientious choice, inspired by my advisor, to begin my research from the ‘bottom up’ so as to hear and understand the voices and the struggles of the people who work on the farm every day. After hearing from the people that struggle and search for *le moyen*<sup>10</sup> I began to have conversations with people who have a certain amount of power or are exerting an effort to affect the status of people practicing urban agriculture. As is to be anticipated their realities and perspectives were worlds apart, as they swivelled in

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<sup>9</sup> The Chief of the *Quartier d’Agriculture* is in charge of over seeing the agricultural area and reports to the Delegate of the Minister of Agriculture.

<sup>10</sup> *Le moyen* = the means/way

their office chairs. Needless to say I was very thankful to have heard from the women and handful of men, who work in the fields first as they shaped my perception and understanding of urban agriculture in Ngaoundéré.

On the note of weaknesses and limitations, this paper, although cohesive in my mind, on paper lacks a certain degree of fluidity and harmony. This frustrated me to no end in the writing process, as I sought to express my experiences of research tied into the larger importance of urban agriculture. I feel that this remains to be done and therefore I am the first to acknowledge that this paper is a work in progress. I believe that this lack of cohesion stems from my attempt to pull a number of factors together that I was not able to research in depth in the field and therefore in many areas the paper remains spotty and strung together by thin gossamer threads.

Anticipated from the beginning and apparent at the end of my three weeks of working on my ISP in Ngaoundéré are the constraints of both time and language, two factors, imbedded in one another, and resulting in, at times shallow understanding of my topic and subject area. The time constraint of three weeks left me feeling that the information that I gathered remained on a fairly superficial level, as it was only possible to scratch the surface of the issues at hand and to get a taste of both the farmers realities as well as the politicians perspectives. Along with this, all of my research was done through interviews and although I believe that qualitative research generally extracts very rich information, I would have ideally also been able to distribute extensive surveys that would have enabled me to have quantitative data that hopefully could have potentially supported my qualitative findings. Due to the limitation of time this was not possible.

Another major constraint was one of language. Although I can move about freely with my French, there are huge amounts that are inevitably lost in translation. This lack of depth in my French speaking ability took two different forms. While speaking with people holding

government positions and working with non-governmental organizations I often felt that I would miss chunks of what was being said as my brain was always lost somewhere a step behind in the process of writing down and understanding the words that were being spoken. This naturally limited the depth of my questions or would mean that instead of probing deeper with a potentially more insightful question I would often accept the response given and move on to the next question.

The language barrier with the farmers took another form. While speaking with farmers my French was generally not a problem as they were patient, understanding and helpful with my stumbling words but in a number of instances our interactions and conversations were limited not only due to my French level but due to theirs also. This is surely a limitation to my research as it has resulted in possibly watered down questions and responses that satisfy the need, but are not as fertile as they potentially could be.

Although I feel that this paper has many weaknesses it undoubtedly has strengths as well. The fact that the topic was on such a focused sub-section of society allowed me to begin immediately talking with urban farmers, as I sought to understand their experience as urban farmers. Of course, all of the farmers who lent me time, to chat and ponder, are inevitably one of the greatest enabling factors of this project because without them, none of this would have been possible. On this same note the efforts made to understand the reality of urban agriculture from the ground up is surely positive attribute of this paper as it gives a voice to the often unacknowledged urban farmers of Ngaoundéré.

My enthusiasm for understanding food systems in general and urban agriculture in particular, is in my mind a strength of this paper, as it allowed me to be ever engrossed in the subject matter and greatly aided my desire to be 'in the field' as I wanted to hear from urban farmers and the issues they confront. In addition to this I hope to be involved with urban agriculture activities for many years to come, both in the 'developing' and 'developed' worlds

and therefore a strength, both realized and potential is that this research serves as a good stepping off point for my future explorations.

### Section III: From the Global to the Local

Urban populations are rapidly growing all over the world and the same is true for the small city of Ngaoundéré located in the Adamaoua Province in Cameroon which has doubled in size since 1980 when the population was 150,000 with the population today resting at 300,000.<sup>11</sup> With rapid urbanization come poverty, lack of employment and a lack of ability of the urban poor to access food. This combination of factors has combined and acted as a catalyst in the southern hemisphere creating what has come to be known as urban agriculture.

#### *Situating Urban Agriculture in a Global Context*

Urban agriculture can be defined as a manifestation of marginalized people's efforts to obtain a certain level of food security, through either production of food for the household or for the market, by growing food or raising animals in an urban area. Urban agriculture can be characterized by its closeness to markets, limited space and high competition for land, use of urban resources such as organic solid wastes and waste water, relatively low degree of farmer organization, the cultivation of mainly perishable and nutrient rich products and a high degree of specialization. An important aspect of the definition of urban agriculture rests on the fact that the significance of urban agriculture does not so much hinge on its location, but rather on the fact that it is an integral part of the urban economic, social and ecological system.<sup>12</sup>

Internationally, there is growing recognition that due to rapidly expanding populations, poverty and food insecurity are no longer issues that are isolated solely to rural areas and that increasingly they are actually becoming problems concentrated in cities and large towns. In recognition of the potential role and benefits that urban agriculture can provide to both the urban poor as well as the population at-large, various UN agencies such as the UNDP, FAO

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<sup>11</sup> *Revision du Plan Directeur d'Urbanisme de Ngaoundéré*, June 2006

<sup>12</sup> René van Veenhuizen *Cities Farming for the Future*

and UN Habitat as well as non-governmental organizations and local and national governments have begun supporting programs and policies to encourage and assist urban agriculture around the world.<sup>13</sup>

The world's population is increasing by around 85 million every year. According to the United Nations projections the world's population will grow from roughly six billion today to more than nine billion by 2050. These figures are closely related to the rapid growth of the world's largest towns and cities. The UN has also projected that between 1995 and 2025 the number of people living in urban areas will have nearly doubled from 2.8 billion to 5.3 billion ~ it is estimated that 90% of this growth will take place in developing countries, as people continue to leave the rural countryside in search of employment and hopes of a better life.<sup>14</sup> As populations grow, and the rural to urban exodus continues, accompanied by inadequate employment and poor infrastructure to support the growing populations the transition of poverty from the rural country side to large towns and cities will increasingly become a problem.

With this new reality of urban poverty the lack of cash income for the urban poor directly translates into food shortages and malnutrition in a much more drastic way than for those living in rural areas that generally have access to land and the potential to cultivate their own food.<sup>15</sup> Therefore despite the abundance of food in urban areas, food security remains an issue of one's ability to access the market. As Amartya Sen so eloquently writes in *Development as Freedom*,

“What is crucial in analyzing hunger is the substantive freedom of the individual and the family to establish ownership over an adequate amount of food, which can be done either by growing the food oneself or by buying it in the market. A person may be forced into starvation even when there is plenty of food around if he loses his ability to buy food in the market, through a loss of income (pg. 161). For those who do not themselves produce food or do not own the food that they produce the ability to acquire food in the market depends on their earnings, the prevailing food prices, and their non-food necessary expenditures (pg. 164).”<sup>16</sup>

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<sup>13</sup> *Ibid.*

<sup>14</sup> P. Dreschel *Stimulation of Urban and Peri-Urban Agriculture in West Africa*

<sup>15</sup> René van Veenhuizen *Cities Farming for the Future*

<sup>16</sup> Sen, Amartya. *Development as Freedom*. Random House: New York. 1999.

The urban poor's inability to access sufficient amounts of food due to un-employment or inadequate sources of income has resulted in the cultivation of land in cities all over the world. According to the FAO, urban agriculture provided food for around 700 million urban inhabitants in 2005, about a quarter of the world's urban population.<sup>17</sup>

#### *The City of Ngaoundéré and Population Growth*

The city of Ngaoundéré's rapid population growth, resembles that of the global phenomena, and has experienced massive growth since 1960 when the population was close to 15,000. Today the population hovers just above 300,000, meaning that the population has grown by some 200%. It is expected that this level of growth will continue and by the year 2025 the population is expected to be around 840,000 people.<sup>18</sup> The exponential growth of Ngaoundéré can be attributed to three main reasons. The first is the opening of the TransCam Rail in 1974, which runs from Yaoundé to Ngaoundéré and resulted in large influxes of people travelling north in search of work and better quality of life. Along with this came the promotion of Ngaoundéré as the region's capital in 1983 and the creation of the University of Ngaoundéré in 1993. All of these factors along with the fact that the Adamaoua province lies at the crossroads, connecting north, south, east and west, as well as borders that touch Chad and Nigeria, have all contributed to the exponential growth rate of Ngaoundéré.<sup>19</sup>

This growth is evident as one wanders through the less dense areas of Ngaoundéré, where it often seems that whole neighbourhoods are in the process of being built. With this massive population growth and urban sprawl comes opportunity for environmental degradation, poverty and sections of the population looking for jobs. Although no numbers exist concerning exact levels of poverty and food insecurity in Ngaoundéré, if the town is similar to

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<sup>17</sup> *Growing Crops in Towns: A Response to the Challenge of Urbanization*, IRAD Website

<sup>18</sup> Joseph Pierre Ndame, *L'Adamaoua: Une Région Camerounaise en Pleine Mutation*, Page 129

<sup>19</sup> *Revision du Plan Directeur d'Urbanisme de Ngaoundéré*, June 2006

other areas of the world that have become rapidly urbanized, it faces the risk of having large sectors of the community both unemployed and food insecure.<sup>20</sup>

#### Section IV: Understanding Urban Agriculture in City of Ngaoundéré

Urban agriculture in Ngaoundéré occupies an interesting and often misunderstood space. It seems that many people are unaware of its presence altogether, (as I was informed by the Suprefect as well as others), that people do not grow food in the city of Ngaoundéré, only around the periphery and in the rural areas. But in reality this is not the case as 20% to 30% of all food at the *Petit Marché* comes from food grown in the urban centre, thereby contributing fresh vegetables to the local population as well as providing the urban farmers with an invaluable source of income and food source for their families.<sup>21</sup> The majority of the farmers are women that earn their living and feed their families through their work at the *petit champs*<sup>22</sup> every day.

Although agriculture was practiced in Ngaoundéré while it was still a small village, it continues to be practiced today virtually in the centre of the town. The agriculture that is practiced in Ngaoundéré today is not a remnant of the rural agriculture, of days of old, but rather the product of poverty and lack of food security that accompanied the growing city and the Economic Crisis which began in 1988.<sup>23</sup> In addition to this women, began cultivating various perishable vegetables for sale at the market as they sought other sources of income.<sup>24</sup> Today in Ngaoundéré the practice of urban agriculture persists, as people seek food, an income or a means to supplement their meagre earnings. Urban agriculture is enabled by a system of poor infrastructure that makes it difficult to transport perishable products long distances and therefore urban farmers are able to supply people living in Ngaoundéré with a supply of fresh vegetables that generally always have a market as they have become part of the

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<sup>20</sup> Ali Kinsi, Formal Interview, April 19, 2007

<sup>21</sup> Maurice Gandebe, Formal Interview, April 20, 2007

<sup>22</sup> Small farms

<sup>23</sup> Edward Tankeu, Formal Interview, April 23, 2007

<sup>24</sup> Joseph Pierre Ndame, *L'Adamaoua: Une Région Camerounaise en Pleine Mutation*, Page 127

local staple diet.<sup>25</sup> Based on the reality that urban farming does exist in Ngaoundéré the following seeks to present the location, realities and benefits of urban farming for all involved.

### *The Location of Urban Agriculture in Ngaoundéré*

All urban agriculture in Ngaoundéré is located along or close to the River Soumsoum, which runs from the eastern part of Adamaoua and down into Ngaoundéré (see Appendix A). By the time it reaches the city limits it is a tame stream that continues to snake its way through the south/south-eastern part of Ngaoundéré<sup>26</sup>.

There are many people that practice urban agriculture along this tributary of the Soumsoum. Maurice Gandebe, an urban and peri-urban researcher at IRAD-Wakwa<sup>27</sup> estimates that the number of people cultivating in the centre of the city is roughly between 350 and 400 people.<sup>28</sup> All of those that farm in the centre of town do so either on land that is owned by the government, such as the *Quartier d'Agriculture* and the land directly behind the prison, or on land that is rented between individuals, privately owned or loaned out amongst relatives and friends.

### *The Face and Form of Urban Agriculture in Ngaoundéré*

Although it may appear that urban farmers form a homogenous group: in that, they are, for the large part poor women, who are often times the only income earner and are farming in the city because of a lack of viable choices. Despite these similarities there are generally four different levels on which urban agriculture is practiced. These varieties of forms of urban agriculture in Ngaoundéré vary from household subsistence farmers to small scale commercial farming.<sup>29</sup> Included below are brief sketches of people who take part in specific

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<sup>25</sup> Ali Kinsi, Formal Interview, April 19, 2007

<sup>26</sup> *Debat d'Overture de l'Assemblée Generale de l'Academie de l'Eau*. From COLDEN Booklet

<sup>27</sup> IRAD: *Institute Recherche Agricole pour le Développement*, A public research institute in Cameroun, with fiscal autonomy seeking development through agricultural research.

<sup>28</sup> Maurice Gandebe, Formal Interview, April 20, 2007

<sup>29</sup> P. Drechsel *Stimulation of Urban and Peri-urban Agriculture in West Africa: Characteristics, Challenges and Need for Action*

types of urban agriculture and who are also representative of the collective whole of urban farmers in Ngaoundéré.

The first group of people cultivate for subsistence purposes only. They do not sell at the market and the crops that they plant are for household consumption only. Although subsistence farming has traditionally taken place in the village, today in urban areas around the world there are groups of people practicing subsistence agriculture within the city. Edward Tankeu, the representative in Adamaoua for *La Voix du Paysan* expressed that rural and urban agriculture, for many satisfies the same needs, in that agriculture remains simply a mode of survival and solely for subsistence purposes.<sup>30</sup> Often these individuals have little or no formal education and have no opportunity to get a job. They rely on the earth for their source of food, for this is what they know. Often people who farm for subsistence purposes may have multiple plots of land within the city or around the periphery, as large tracts of undeveloped land are difficult to locate in urban areas.

*Baaba*<sup>31</sup> Namatcher is an example of someone practicing agriculture for subsistence purposes. He is by far the oldest person on the farm at the *Quartier d'Agriculture*, and is known to all as 'Baaba'. His skin leathery and his back hunched from a life of hard work in the sun. His plot of land under a large old mango tree is often visited by other farmers and passers by, both for conversation and cultivation advice. When I met him, he had just completed turning the soil in which he would shortly sow corn. As we talked, he expressed to me that growing food has always ensured that him and his family have enough to eat. He has been cultivating here since the 1950's and has fed his family of 15 through his labours in the field. Today only six of his children remain alive and he continues to cultivate solely for him and his wife. For the most part he grows maize and manioc but also Irish potatoes, and various vegetables. Although this is for consumption he noted that if his family needs salt, soap

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<sup>30</sup> Edward Tankeu, Formal Interview, April 23, 2007

<sup>31</sup> Means 'father' in Fulfulde

or oil he would sell or trade produce from the farm so as to make some money. Baaba Namatcher would often say, 'Ici, en Afrique, si on ne travaille pas dans le champs, on ne mange pas'<sup>32</sup>.<sup>33</sup> This sentiment was repeated often by others that cultivated for subsistence purposes as they sought to express the struggle of a life that has no guarantees and has allowed little choice, therefore resulting in the urban poor looking to the earth for their main source of food.

The second category of farmers that can be found in Ngaoundéré as well as in urban agriculture throughout the world are those who farm in the city or town 'to make ends meet', as Madame Ecko said, a farmer that cultivates on the land that she rents from a private land owner behind the prison.<sup>34</sup> This group of people is growing for subsistence purposes also but generally has an income and possibly a second income of a spouse; in spite of this the cultivation of food is a necessary addition to their meagre incomes. People in this group seek to save the money that they are earning for school fees, health emergencies and times of extreme need.

Representative of this group of farmers that cultivate to supplement their income is Theresa. She is a middle aged woman from a village outside of Bamenda in the English speaking North-West Province. She is a teacher and has been living in Ngaoundéré for over ten years. She says that she farms so as not to 'chop money' from work combined with the fact that she believes that it is better not to depend on a job to supply ones family with food.<sup>35</sup>

Two years ago Theresa saw this rich area of uncultivated land and eventually located the man that owns it and arranged a private contract with him. She rents the land on a yearly basis along with a group of women from the Anglophone region. They come each weekend to the farm to cultivate and sometimes during the week, early in the morning before work

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<sup>32</sup> 'Here, in Africa, if on does not work at the farm, one does not eat'.

<sup>33</sup> Baaba Namatcher, semi-formal interview, April 10, 2007

<sup>34</sup> Madame Ecko, Informal Interview, April 12, 2007

<sup>35</sup> Theresa, Semi-formal interview, April 14, 2007

starts. They grow coco yams, maize, manioc, red beans, *eru*<sup>36</sup>, cabbage, pepper, celery, basil, parsley and tomatoes amongst other things. Without this source of food that is cultivated, all of the money that she earns would be spent to feed the family.<sup>37</sup>

The third group of urban cultivators is made up of people who work at the farm and cultivate for the market (as well as for eating). This is their main activity and their primary source of income. They generally cultivate legumes or condiments during the dry season which they take to market to sell, or they sell indirectly from their garden areas to the *buyem-sellems* who take them to the market for sale.

Koulsoumé grew up with her hands in the earth, as her mother, like her now, also cultivated a patch of earth at the *Quartier d'Agriculture*. She cultivates legumes, lettuce, cabbage, tomatoes, parsley and basil for the market as well as maize during the dry rainy season for her family. She remembers being young and coming to the farm with her mother to help her cultivate, it is the one thing that has been constant in her life. Koulsoumé has been married since she was 15 years old and explains quietly that it is because of this that she never had the opportunity to go to school. Her husband stays at home as he has retired from the army and has no other work or income. They have two children now and it is up to her to continue cultivating food at the farm so as to pay the school fees for her children. She wishes for them to have more opportunities in life than she had and sees education as an essential tool in this process and the only way that their lives will not be spent cultivating the same infertile piece of earth.<sup>38</sup>

The fourth group of people are practicing agriculture within the urban area and producing relatively high value crops on small areas of land. These smallholders generally have a long term commercial plan and make up a minority of the population of urban farmers.

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<sup>36</sup> A green leafy vegetable eaten with fufu in the North-West

<sup>37</sup> Theresa, Semi-formal interview, April 14, 2007

<sup>38</sup> Koulsoumé, Semi-formal interview, April 15, 2007

Julie is representative of this group and is a strong and stocky, middle aged woman who grows ginger root. She sells the ginger to wholesalers in Ngaoundéré as well as in Maroua and Garoua, as well as takes it to the market herself as she is guaranteed the best price this way.

In the heat of the afternoon sun while breaking large ginger root apart into smaller pieces for planting, Julie explained to me that this is the one and only way to guarantee that her family will have food to eat. She has been cultivating in Ngaoundéré for 7 years, since her and her family moved from the South-West Province in the year 2000. She has four children and they all work on the farm. Julie is currently unmarried but has a boyfriend that lives in town. She is hoping that next season she will be able to save up enough money so as to buy a sewing machine and become a tailor.<sup>39</sup>

#### *Realized and Potential Benefits of Urban Agriculture: For the Farmers and the Community*

Urban agriculture has the potential of providing numerous benefits to both the producers and consumers of the vegetables that are grown within Ngaoundéré. Undoubtedly one of the most important assets of urban agriculture is its potential to contribute to food security and healthy nutrition of both the families of the farmers and the community at large. This was cited over and over again as the most important reason as to why the farmers that I spoke with were growing food: quite simply so they could feed their families. In addition to harvesting food and a potential income for their families, urban farmers also benefit by harvesting medicinal roots, leaves and barks from urban farming areas.<sup>40</sup>

One of the enabling factors of urban farming and something that allows a large part of the women to go to the farm every day is that they live within walking distance to where they cultivate. This allows women to continue with their household and childcare roles, not spend money and time on transportation and contribute to the food supply of their family. Because

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<sup>39</sup> Julie, Semi-formal interview, April 14, 2007

<sup>40</sup> Ellen, Informal formal, April 11, 2007

of this fragile relationship between the location of land and the ability of the poor population to access the land it is important that concerned parties (ideally local authorities and non-governmental organizations) consider this fact when they wish to extend aid or an open patch of land to urban farmers. A failure of the governments ability to recognize this relationship occurred recently when the government gave land 30 kilometres outside of the city to the GIC<sup>41</sup> *Femmes Jardinières* to cultivate, but none of them have been able to go to their new farm because of the distance, cost and time that it takes to travel there.<sup>42</sup> Keeping open space close to the centre of town is therefore crucial so as to enable those who wish to grow food.

Another benefit is that farming households save on household expenditures by growing their own food. As one of the women that I spoke with explained she is able to feed her family with the food that she grows at the farm (because her husbands income is not sufficient), she sells the remaining vegetables and is able to keep the money that she makes for herself and household expenses such as soap and oil. It was clear that her ability to earn her own money and have a certain amount of financial independence was of great importance to her.<sup>43</sup> This financial independence is also invested and manifested in various forms. When asked what most of the women did with the income that they earned the most common response was to pay the school fees for their children, and in some cases the income was to be used for school fees for themselves.<sup>44</sup> This type of investment produces multiple positive effects as it produces future and recurring benefits both for the farmers and their families.

Urban farming can also promote community and individual empowerment.<sup>45</sup> The creation of community is an inevitable attribute of urban agriculture, as mothers bring their children to the farm and melodic greetings and laughter are heard passing in the wind. This

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<sup>41</sup> Groupe d'Initiative Commune : a group of individuals who come together to do a revenue sharing activity (in this case agriculture)

<sup>42</sup> Eita, Informal interview, April 10, 2007

<sup>43</sup> Hashana, Informal interview, April 11, 2007

<sup>44</sup> Lavish, Semi-formal interview, April 14, 2007

<sup>45</sup> Anderson Kel'Libi Lam, Semi-formal interview, April 25, 2007

was strongly felt at the *Quartier d'Agriculture*, as people would gather under the shade of mango trees and exchange gossip and laughter. In addition to this the above factors of food security, relative financial independence, the opportunity of working close to home and the strengthened bonds of community have the potential to create new levels of independence and empowerment for the individuals. As one farmer explained she is able to take the food she grows back to her home and knows that she is helping to feed her family. She also uses the money she earns at the farm to help send her eight children to school. These contributions to her family allow her to take pride in her work and in herself.<sup>46</sup>

Although there are multiple benefits for the individuals involved in urban farming there are also potential benefits for the community as a whole. A clear benefit to any observer that visits the *Quartier d'Agriculture* is how green and lush it appears, with tall trees and green open space, where one can walk freely through. Unfortunately with urbanization, areas such as this are consistently being lost, if the beauty of the area is acknowledged as a benefit it might allow for the preservation of space for urban farming. Urban agriculture can potentially contribute to the development of micro-enterprises for the production of necessary agricultural inputs such as fodder and compost. And vegetables produced by urban agriculture are sold at the market and contribute to the urban economy.<sup>47</sup> In addition to this Ali Kinsi, the Delegate for the Minister of Agriculture noted that urban farmers are a necessary and important element of the economy and structure of Ngaoundéré as they provide the population with the daily perishables that every body uses. Along with this, urban farming can take place all year long, unlike most agriculture which is reliant on the rainy season, because of the water supply of the River Soumsoum. This allows for a year round supply of nutrient rich vegeta-

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<sup>46</sup> Njopon Honorienne, Informal interview, April 11, 2007

<sup>47</sup> René van Veenhuizen *Cities Farming for the Future*

bles which would otherwise not be available if they were being supplied from peri-urban or rural areas.<sup>48</sup>

On an environmental note, urban areas produce large amounts of waste which can pose both a problem to urban farmers as well as can be used as a solution. Urban waste can be used as a solution for urban agriculture if waste products are turned into compost, or if waste water is used to irrigate crops. In addition to this if urban agriculture is promoted and supported by the state it can help ‘green’ urban spaces by offering areas that can act as visually appealing space for walking and enjoying, as well as offer cooling shade and dust reduction to the area. Urban agriculture is also a way of keeping areas clean and maintaining them in an orderly fashion so that undeveloped areas are not taken over by weeds and trash.<sup>49</sup> This was the original reason that the farm at the *Quartier d’Agriculture* was begun, because the government no longer had the money for the maintenance of the land so they began renting it to people to farm on.<sup>50</sup> On a global scale, a final positive contribution of urban agriculture, is that the ‘ecological footprint’<sup>51</sup> of cities can be greatly reduced when fresh foods are grown close to consumers, thereby reducing energy for the transportation of food.<sup>52</sup>

#### Section V: Problems, Risks and Difficulties of Urban Agriculture

Despite the number of benefits of urban farming there are also a number of problems (that urban farmers face), as well as risks associated with urban farming. As all things tend to be interconnected and woven of the same cloth, so too are the problems that the farmers face, imbedded in the risks of urban agriculture and embraced by a system that does not seek to support or enable urban farming activities. In addition to this urban farmers encounter a series of challenges that are specific to their urban working environment, as well as struggle with some of the same problems that rural farmers face. Urban agriculture is particularly

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<sup>48</sup> Ali Kinsi Formal Interview April 19, 2007

<sup>49</sup> Anderson Kel’Libi Lam, Semi-formal interview, April 25, 2007

<sup>50</sup> Kali Abbakassi, Formal interview, April, 18, 2007

<sup>51</sup> Refers to the amount of resources that a person or place consumes

<sup>52</sup> Discussion Paper for the FAO. *Urban and Peri-Urban Agriculture and Urban Planning*. September 2000.

volatile if it is practiced irresponsibly or haphazardly due to the large potentials for contamination and pollution in urban areas. Urban farmers are naturally very aware of the issues and problems that they encounter on a daily basis while local authorities and non-governmental organizations tend to be aware of the risks and hazards of urban agriculture, if they are aware of urban agriculture at all.

### *The Problems that Urban Farmers Face in Ngaoundéré*

Urban farmers face a myriad of problems that are unique to their location. One of the most common concerns and worries of the urban farmers that I spoke with was that of land insecurity. A minority of urban farmers own the land that they cultivate on, while the great majority rent from the state or from private land owners. Naturally this leaves urban farmers in a state of worry that at any point the government or the land owner could arrive and reclaim the land. This concern manifests in different forms depending on the relationship with the land owner (state or private person) and the area being worked. As Bebé, a women who has been part of the GIC *Femmes Jardinières* at the *Quartier d'Agriculture* for seven years said 'la terre n'est pas pour nous ici'<sup>53</sup> and went on to explain that is a constant concern for her and the other women that work here and that one day the government will decide that they want their land back and simply reclaim it, displacing her and the others who work on the farm.<sup>54</sup>

For those that do not rent land from the government, the arrangement between farmers and land owners can be even more fragile due to their informal nature and therefore at any point the land can be repossessed by the land owners or simply manipulated for higher rents and percentages of their harvests. Lavish and Donaltus, a young couple from Bamenda who moved to Ngaoundéré two years ago in search of work, have encountered just this problem with the man that owns the land where they cultivate legumes, coco yams, manioc and maize

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<sup>53</sup> 'The land is not for us here'

<sup>54</sup> Bebé, Informal interview, April 12, 2007

for their small family, and with the hopes of saving enough money to send Lavish back to school. In the span of a week, two different men had arrived on the farm, both claiming that the ‘Chief’ had sent them. Donaltus had paid the first man and refused to pay the second man under the pretext that his rents were paid. Lavish and Donaltus are now faced with the prospects of losing the land, along with their main source of food and income.<sup>55</sup>

Both of the above situations, resulting in a sense of land insecurity, often contribute to farmers’ unwillingness to invest in the land that they are using. The result is soil that is infertile because the farmers are doing the bare minimum to grow their crops.<sup>56</sup> The issue of soil infertility is also potentially a result of the high intensity agriculture which rapidly absorbs nutrients in the soil, which are not reinvested partly because of the aforementioned issue of land insecurity, but also because of a lack of knowledge about more sustainable methods of farming such as crop rotation and leaving areas fallow.<sup>57</sup> The result is soil that is very tired, especially at the *Quartier d’Agriculture*. It is worth noting that the soil at the *Camp Prison* appears very fertile and rich and the farmers that I spoke with there said that they do not need to use many fertilizers.<sup>58</sup> Apparently this is because of prisoners defecations that are brought down to the river every morning as well as mixed into the soil as a fertilizer.<sup>59</sup> The issues of land insecurity and soil infertility are compounded and create a negative feed-back cycle as farmers are then forced to spend large sums of money on chemical fertilizers in an attempt to regenerate the nutrients in the soil.

As noted above urban farmers end up spending large amounts of money on inputs for their crops or they run the risk of a poor season. Farmers that I spoke with constantly referred to the cost of the inputs as a huge limitation and although some farmers do buy bags of cow dung from the cattle herders (which is much less expensive than chemical fertilizers), they

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<sup>55</sup> Donaltus and Lavish, Semi-formal interview, April 14, 2007

<sup>56</sup> Ali Kinsi, Formal interview, April 19, 2007

<sup>57</sup> Maurice Gandebe, Formal interview, April 20, 2007

<sup>58</sup> Theresa, Informal Interview, April 14, 2007

<sup>59</sup> Julie, Informal Interview, April 14, 2007, Abubaker Yaya, Advisor Meeting April 20, 2007

often still need to buy additional fertilizers and pesticides to ensure that their plants grow to full sizes and are not devoured by pests.<sup>60</sup> On a number of days at the farming areas in Ngaoundéré it was common to see a well dressed man, speaking French, wandering through the fields with a bag of chemical fertilizers and pesticides for sale, pushing his wares to anybody that was available to listen. If one wished to make a purchase, he would measure out the requested quantity, explain how to use the product and then be on his way. This form of sales combined with a lack of knowledge has repercussions such as overuse and misuse of pesticides and fertilizers

A common problem in cities all over the world where urban agriculture is practiced is one of robbers.<sup>61</sup> This was an issue brought up by almost all urban farmers that I spoke with as one of the largest and most devastating problems. It is also, quite obviously an issue that is unique to agriculture that is practiced in urban areas. On another note a common need expressed by urban farmers was a water pump, as the large part of their labour in the field is due to walking back and forth from the small wells at *Quartier d'Agriculture* or the Soumsoum River so as to water the vegetables, which can require watering up to four times a day during the dry season.<sup>62</sup> A final problem mentioned was one of cows traipsing through fields, destroying and eating crops. The farmers who mentioned this issue seemed more or less resigned to the reality that they are cultivating food in an area with a high percentage of cattle herding, despite this it was a problem cited and deserves to be mentioned.<sup>63</sup>

### *Risks of Urban Agriculture in Ngaoundéré*

Urban agriculture poses a series of risks to the consumer and potentially the environment due to the urban setting in which food is being cultivated. Although this is not a scientific study the risks remain visible and should be considered as serious potential problems for

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<sup>60</sup> Madeline, Semi-informal interview, April 11, 2007, Asmou, Informal interview, April 12, 2007

<sup>61</sup> Mougeot, Luc. *Urban Agriculture: Definition, Presence, Potentials and Risks*.

<sup>62</sup> Ousmani Bouba, Informal Interview, April 15, 2007

<sup>63</sup> Madeline, Semi-informal interview, April 11, 2007, Ousmani Bouba, Informal Interview, April 15, 2007

the population of Ngaoundéré. In this case the potential risks of urban agriculture are due to three sources: polluted water, contaminated soil and overuse of chemical pesticides and fertilizers which affects both the water and the soil.

As was noted earlier the source of water used by urban farmers flows from the Soumsoum River, which serves a multitude of purposes for the population of Ngaoundéré including a place for washing clothes, dumping of trash, and rug cleaning. In addition to this, on the edge of town by Hotel Transcom, the Soumsoum forms an artificial lake. If one passes the lake on a Saturday morning one can see people knee deep in the water, washing their motos and cars. Probably one of the gravest problems is that every morning, where the river passes the prison, the prisoners night defecations are poured into the river and as this water is used on the urban farms it contributes to cholera, typhoid fever and the hepatitis virus in the Ngaoundéré area.<sup>64</sup> There are also multiple car and moto mechanics positioned along the road that run along the Soumsoum, inevitably leeching petroleum into the soil and eventually into the groundwater. When one looks into the shallow wells at the *Quartier d'Agriculture* or into the slow running parts of the Soumsoum, one can often see oil rings and trash floating in the water.<sup>65</sup>

Second to the issue of contaminated water, is soil pollution which is often saturated with pesticides and fertilizers (which also end up in the ground water) due to the farmers' lack of knowledge around which types and quantities are appropriate to use. Along with this the trash that is deposited along the side of the Soumsoum River often becomes mixed into the soil where people are growing food. A common practice, and apparently an attempt at composting, is to mix trash (organic materials and plastics) into where farmers cultivate. The organic matter breaks down but the plastic remains, in turn contaminating the soil. In addition

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<sup>64</sup> *Revision du Plan Directeur d'Urbanisme de Ngaoundéré*, Ministry of Urban Development and Housing, June 2006

<sup>65</sup> *Debat d'Overture de l'Assemblee Generale de l'Academie de l'Eau*. From COLDEN Booklet

to this, the use, intended or unintended, of human waste in the soil and as a possible fertilizer poses an obvious health risk as noted previously.<sup>66</sup>

And finally amongst urban farmers, it is common practice, if they have a problem with pests, to buy a pesticide and use it all within one day, rather than following the correct directions.<sup>67</sup> This results in polluted soil, water and foods. Along with this researchers at IRAD have found that this over use of pesticides is contributing to a problem of pest and bacteria resistance as farmers will use the same type of pesticide over and over again in large doses, simply because they do not know any better.<sup>68</sup>

#### *The Difficulty of an Unsupportive System*

People working within governmental positions often see urban agriculture as a nuisance that contributes to environmental degradation and health problems, despite the fact that it benefits the poorest peoples in society.<sup>69</sup> In Ngaoundéré, according to the Mayor the peasants block the river during the dry season in an attempt to accumulate water for their crops and when the rains come everything floods causing further problems for the poor population and the state.<sup>70</sup> In addition to this there was an attitude amongst the men holding powerful positions that I spoke with that the women who are urban farming are unable to embrace new ideas and opportunities and that they are not receptive to ideas that come from 'above'.<sup>71</sup>

Although the Delegate of the Minister of Agriculture holds a more positive perspective on the role that urban agriculture plays in Ngaoundéré and feels that urban farmers contribute a necessary supply of food to the town as well as creating work and food security for the poor. In spite of this his role within the Minister of Agriculture is to act as a supportive bridge between the farmers and department, with the idea being that farmers would come to him to

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<sup>66</sup> Maurice Gandebe, Formal Interview, April 20, 2007

<sup>67</sup> IRAD Survey, Phyto-Sanitaire Practices for Urban and Peri-urban Farmers, March, 2007

<sup>68</sup> Maurice Gandebe, Formal Interview, April 20, 2007

<sup>69</sup> Mayor Djidji Issa Yaya, Formal Interview, April 19, 2007

<sup>70</sup> Anderson Kel'Libi Lam, Semi-formal interview, April 25, 2007

<sup>71</sup> Kali Abbokassi, Formal Interview, April 18, 2007

have their problems addressed.<sup>72</sup> This being said there is clearly a disconnect between the Mayor and the Delegate of the Minister of Agriculture in Ngaoundéré because when they were both asked about land leases and the opportunity to allocate more state land to the urban farming community they both said that it was the other ones responsibility and that it did not fall under ‘their domain’.<sup>73</sup> Quite obviously a system that does not have cohesion or the ability to communicate within itself will not be successful or able to help those in need, which will only result in an exacerbation of the problems and risks of urban agriculture in Ngaoundéré.

It became clear that people, who are not themselves farming in urban areas, see urban agriculture as a risk, rather than a possible attribute of the town of Ngaoundéré. There was a general consensus amongst those holding government positions or of higher education levels that agriculture is something that should not be taking place in urban areas and should only be occurring around the periphery of the city as well as in rural zones. This sentiment shows the ability to ignore the reality that urban farmers will continue cultivating, not because they wish to farm in polluted areas but simply because they have no other choice. As long as the role of urban farmers is to be ignored, so too, will attempts at supporting and assisting urban farmers, and the struggles and risks that they face will remain unaddressed.

## Section VI: Considerations for the Future

There seems to be consensus between those that sit behind big desks in comfortable chairs that farming is something that is not for the urban area and should be relegated to the fringe of town or possibly kept in the countryside altogether. Despite this attitude it is evident that as long as there is land and a trickle of water from the Soumsoum the poor and marginalized of Ngaoundéré will seek a survival through cultivating food in these areas. This being the case, it is clearly in everyone’s best interest to work together so as to enable and support

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<sup>72</sup> Ali Kinsi, Formal interview, April 19, 2007

<sup>73</sup> Djidji Issa Yaya, Formal Interview, April 19, 2007. Ali Kinsi, Formal interview, April 19, 2007

urban farmers in Ngaoundéré. This can be done in a number of ways, on a series of different levels ranging from educating urban farmers about proper practices to creating policy that supports urban farming.

### *Seek to Understand*

For change to come within urban agriculture and the system to adequately support urban farmers it is absolutely essential that local authorities and non-governmental organizations in Ngaoundéré seek to understand and address the issues of urban farmers, rather than assuming their needs. It will do no good to continue giving land long distances from the city, or donating water pumps without showing them how to use it.<sup>74</sup> By understanding the above problems of urban farmers it becomes immediately apparent of how connected at the root the issues of land insecurity, soil infertility, and cost of inputs, if one of these areas is addressed it will result in global improvements, both for the problems faced by the farmers as well as the potential health risks for the community at large. On a larger note it is essential that a spirit of listening is cultivated so that those that work in offices are able to see value in the opinions and perspectives of those that work, day in and day out at the farm.

### *Education and Sensitization*

Providing information and education to groups of farmers around issues of land fertility, pesticide and fertilize use, as well as limiting risks of pollution to soil and water is an important and viable place to begin affecting change with those that struggle to survive through urban agriculture. Teaching leaders within the urban agricultural community about sicknesses that can come from irresponsible practices, more effective ways of killing weeds, disinfection of soils before planting, and crop rotation are all possible ways of reducing the problems cited by urban farmers (soil infertility, pest/weeds, cost of inputs) and helping them to farm in more effective and efficient ways.

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<sup>74</sup> Ali Kinsi, Formal Interview, April 19, 2007

### *Composting*

Every day in the trash heaps along the side of the road, mixed in with plastic bag and bottles, is huge amounts of nutrient-rich organic materials that end up rotting, being burned with the trash, or swept down the river. Efforts should be made to begin a composting project in Ngaoundéré, targeting one specific neighbourhood. Although this was attempted five years ago by PACDDU<sup>75</sup> it was not effective due to its spread out and extensive nature.<sup>76</sup> This project should be attempted again but in a small and localized area, possibly at the *Petit Marché*, as that would provide rich amounts of organic materials. In addition, if an interested women's group or GIC was in charge of collecting the organic waste they could in turn sell it to farmers or use it themselves.

### *Land and Water Security*

Despite the opportunistic nature of urban farmers, they can only continue cultivating as long as there is land and water available. Right now, there is an ever declining amount of available land for farming located close to the central part of town and only the Mayor has the ability to further allocate land for agricultural practices.<sup>77</sup> In addition to this the River Soum-soum is quickly being filled in with trash and sludge. For urban agriculture to remain a facet of Ngaoundéré it will require recognition of these two major issues by local officials and non-governmental organizations.

As far as the issue of land goes it would be advantageous for interested groups to make a commitment to those that are growing food for the population of Ngaoundéré by facilitating access to land for urban agriculture. This can be done in a number of ways. One possibility is to create a running inventory of all vacant land within Ngaoundéré so as to make it readily accessible to those in need or to create a 'Municipal Agricultural Land Bank' that could seek

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<sup>75</sup> PACDDU: Program d'Appui aux Capacités Décentralisées de Développement Urbain (Coopération Cameroun-Union Européenne)

<sup>76</sup> Abubakar Yaya, Advisor Meeting, April 18, 2007.

<sup>77</sup> Ali Kinsi, Formal Interview, April 19, 2007

to connect those with vacant land that wish for it to be maintained in contact with those seeking to cultivate. As was noted due to the short term lease of land, farmers often feel insecure when it comes to their land rights and therefore have a tendency to not invest in it as they would if it was a long term commitment. This results in minimal levels of responsibility being taken as farmers are unsure if they will have access to the same plots of land the following year. With this in mind it could be advantageous to create medium term land leases, rather than short term, so as to allow for a certain degree of investment and ownership to the areas where people are cultivating.

Water is the next largest constraint that menaces to stop urban agriculture altogether in Ngaoundéré. As the rivers banks increasingly encroach the waterway and as huge trash heaps continue to be piled along the banks of the river there is a large possibility that the River SOUMSOUM could become a thing of the past as it is increasingly becoming a trickle and may one day dry up. Therefore, an important project is to canalize and clear out the River SOUMSOUM so as to allow water to flow freely through it again.

#### *Facilitating rather than Prohibitive Policy*

On the level of both state and local politics, if Cameroon truly wants to take part in ‘The Fight Against Poverty’, creating supportive policy for urban farmers and land use rights, both on a local as well as national level, would be a good place to begin so as to directly benefit poor women. Ideally local authorities in Ngaoundéré will come to see the role of urban farmers and rather than simply tolerate or prohibit them, they will seek to create policies that facilitate and recognize urban agriculture which will ultimately maximise the benefits and reduce the potential risks involved.

#### Section VII: Conclusion

In conclusion, if global trends reflect the reality in Ngaoundéré then one can anticipate continued population growth, un-employment and lack of access to food as the continued shift

of poverty from rural to urban areas continues. Assuming that this is the case the lower class will continue searching out open space close to the centre of town and the Soumsoum River to cultivate food, whether enabled or ignored by local authorities. These marginalized peoples, mostly women cultivate food for various reasons ranging from subsistence agriculture to small scale cash crops in urban areas. But if urban cultivators continued to be ignored by the current powers, pollution, public health issues, and poor land use could be the result. If this is the case then the potential cost for future generations, outweighs the benefits of food security today. But urban agriculture does not need to be a liability and can provide the poorest people in a community with an invaluable source of food and income and the community at-large with a source of fresh vegetables and green space.

The problems and risks of urban agriculture in Ngaoundéré do not have to become realities and can instead be manifested into opportunities to support the most marginalized populations. This would require the mayor, the Delegate of the Minister of Agriculture, the Delegate of the Minister of Urban Development and multiple non-governmental organizations to work together to listen to, support and enable urban farmers through education, environmental initiatives, and development plans that consider the role of urban agriculture and its contributions to the community as a whole.

Urban agriculture will remain as long as there is poverty and spare earth in Ngaoundéré. The future remains open with a clear choice that needs to be made, whether authorities in Ngaoundéré wish to enable or ignore urban agriculture. Either way it will continue, but it is for those with power to make a decision as to whether urban agriculture will become an environmental and public health issue or an invaluable source of food and income for the urban poor as well as the rapidly growing population of Ngaoundéré. May those with the power seek to understand and encourage positive change.

*Suggestions for Future Research*

So as to better understand urban agriculture in Ngaoundéré, and to maximize the benefits and minimize the risks, urban agriculture must be analyzed from a series of different levels including scientific, sociological, economic, political and environmental perspectives. This paper has just sought to understand the organization, basic understanding and issues of urban agriculture. With this in mind, possible areas for future researchers and organizations interested in urban agriculture would be to look at levels of plant, soil and water contamination on urban farms in Ngaoundéré as well as to consider the public health effects of urban agriculture. On this same note one could look into who consumes the output of urban agriculture and how it affects their health status. In addition to this, exploring the full array of stakeholders in urban agriculture and understanding their interactions could enable a holistic lens to further study urban agriculture. And a final suggestion is to study the role and relationship between urban and peri-urban agriculture in Ngaoundéré so as to understand the implications if urban agriculture was displaced to the peri-urban zones. Ideally, the above questions, along with others, will help determine whether agriculture is fit to be practiced in urban areas, or better left in the rural countryside.

### Interviews

Madame Eita, Secretary of the GIC *Femmes Jardinières*, Informal interview, April 10, 2007

Baaba Namatcher, Informal interview, April 10, 2007

Paul Fouegap, Informal interview, April 10, 2007

Isatoo, Informal interview, April 10, 2007

Ellen, Informal interview, April 11, 2007

Hashana, Informal interview, April 11, 2007

Njopon Honorienne, Informal interview, April 11, 2007

Madeline, Informal interview, April 11, 2007

Group interview with GIC *Femmes Jardinières*, April 11, 2007

Derick, Informal interview, April 12, 2007

Asmaou Hamoua, Informal interview, April 12, 2007

Bebé, Informal interview, April 12, 2007

Leita, Informal interview, April 12, 2007

Madame Ecko, Informal interview, April 13, 2007

Meina, Informal interview, April 14, 2007  
 Lavish, Semi-formal interview, April 14, 2007  
 Donaltus, Semi-formal interview, April 14, 2007  
 Theresa, Semi-formal interview, April 14, 2007  
 Winifred, Informal interview, April 14, 2007  
 Batingné, Informal interview, April 14, 2007  
 Julie, Semi-formal interview, April 14, 2007  
 Sald, Informal interview, April 14, 2007  
 Emmanuel, Informal interview, April 15, 2007  
 Ousmani Bouba, Informal interview, April 15, 2007  
 Koulsoumé, Informal interview, April 15, 2007  
 Myamoonatou, Informal interview, April 15, 2007  
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 Kana Apollinaire, Informal interview, April 16, 2007  
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 Kali Abbokassi, the old Chief of the *Quartier d'Agriculture*, Formal interview, April 17, 2007  
 Mr. Hamassali, current Chief of the *Quartier d'Agriculture*, Formal interview, April 17, 2007  
 Ali Kinsi, Delegate of the Minister of Agriculture, Formal interview, April 18, 2007  
 Djidji Issa Yaya, Mayor of Ngaoundéré, Formal interview, April 18, 2007  
 Maurice Gandebe, urban and peri-urban researcher at IRAD-Wakwa, Formal interview, April 20, 2007  
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