INTEGRATING FOOD INTO URBAN PLANNING

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Figure 2: Local market inMacao. Photo credit: Yves Cabannes

INTRODUCTION: CONTRIBUTION OF FOOD SYSTEMS TO SOME OF THE 10 PRINCIPLES ON SUSTAINABLE CITIES

In this introduction we would like to illustrate that food planning can contribute to the *eco-city we want* based on the ten key principles proposed by J.R Kenworthy in this volume. To do this we have selected articles from the DPU-UCL and FAO co-edited book to be launched in 2017 describing five food planning efforts from around the world which provide the reader with an overview of this emerging profession and which highlight successful emerging food planning tools. In this introduction we will also be enriching the discussion by referencing some food planning examples found in our forthcoming book. We feel that lessons from these projects could be usefully employed in other locations.

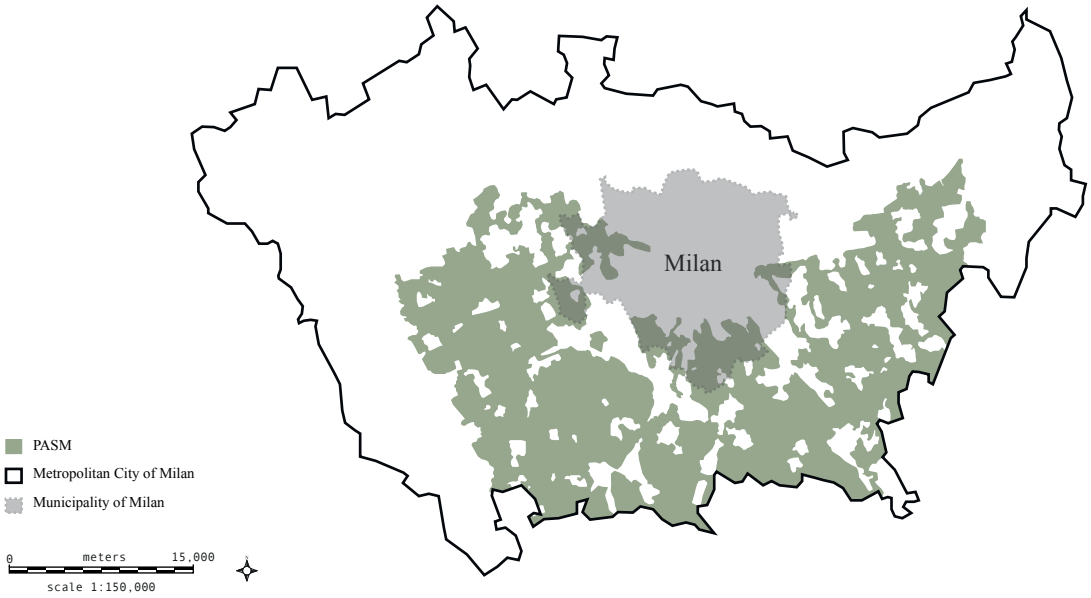
A first benefit shared by integrating food into urban planning is to **increase urban food security and nutrition.** This is achieved by addressing the entire food system in relation to supply, agro-processing, transportation and distribution through formal and informal channels. More specifically, several of these experiences show that integrating food into urban planning means: 1.) incorporating mechanisms for making nutritious and fresh food more accessible, mainly to the urban poor, and reducing overall inequalities in access (e.g. zoning promoting healthy food access and restricting fast food outlets); 2.) improving the functionality of food markets and distribution through spatial planning of cities and territories; 3.) promoting the use of public spaces and services for small food vendors/ entrepreneurs both formal and informal; 4.) improving the connectivity between urban and rural areas; and, 5.) prioritizing protective mechanisms for the preservation and expansion of urban and peri- urban agricultural land, promoting productive public spaces and improving the use of urban and peri-urban agriculture.

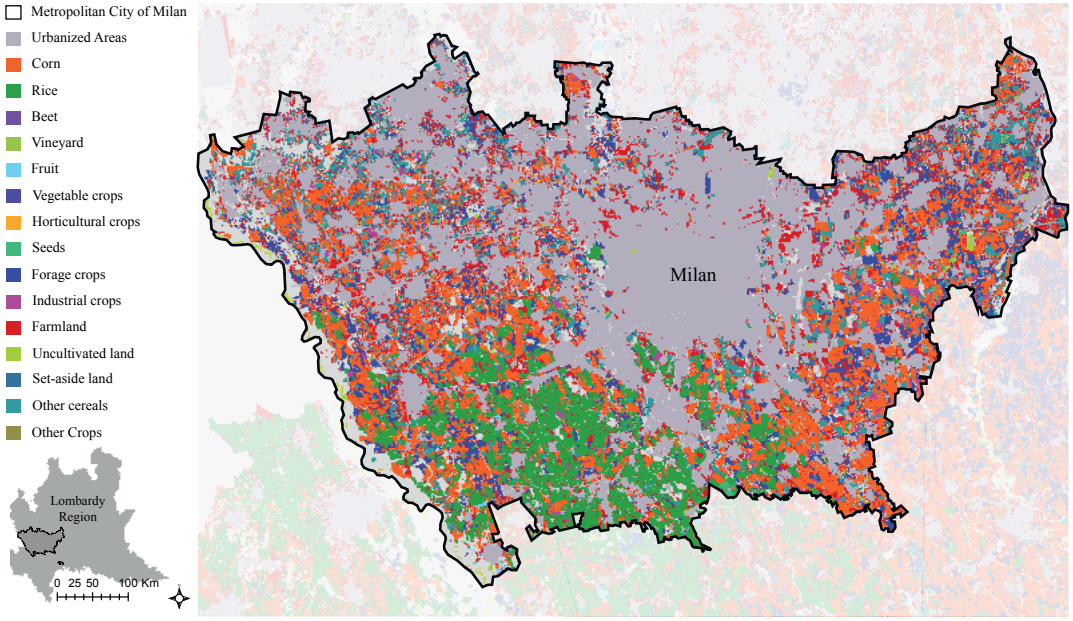
However, the benefits of integrating food into urban planning and developing regional food systems go way beyond the mere increase of nutritious food security levels. Key contributions relate well to the following dimensions of urban sustainability: 1.) *environment* (climate change adaptation, reduction of greenhouse gas emission and carbon food print, greening of cities, adequate and rational use of land and water, water treatment and recycling; 2.) *social* inclusion of a wide array of diverse social groups through urban agriculture, farmers' markets, mobile food vendors, allotments; and, 3.) *economic* development (numerous cheap and green jobs along the food chain, food related jobs from production, agro-processing, markets and waste management, both formal and informal with great potential for women and young entrepreneurs.

Our central argument here is that the experiences contained in this volume, and in our upcoming book, contribute one way or another to each one of the ten principles for sustainable cities, but with quite strong relations with four of them. Our initial comments will refer to the first two: Principle 1. *"Compact, mixed-use urban form that uses land efficiently and protects the natural environment, biodiversity and food producing areas"* and Principle 2 *"Natural environments permeate the city's spaces and embrace the city, while the city and its hinterland provide a major proportion of its food needs".*

Some cities are providing a significant proportion of food and it is important to note that food proportion is growing, along with the population and the economy. Cities such as Portland, Oregon or Toronto and its Horseshoe Region, or quite interestingly the Milan Metropolitan Region are demonstrating that economic growth and increase of land prices can go hand in hand with a strong agricultural productive sector, primarily in the hinterland. Planning here plays a key role, and the concept of *Regional Food System Planning* is gaining grounds as a successful planning approach. In addition to planning, the various narratives, primarily Milan (found in our book) are insisting on the need for an administrative reform and a strong political will in order to have natural productive and non-productive environments embracing the city.

Milan usually evokes fashion, design and a high tech pole that makes it an extremely dynamic, rich city. It is one of the engines of the Italian economy. What is less well known is that one third of its territory is still cultivated, guided by quite an innovative set of planning rules and developments[1]. [The Agricultural Park of South





Milan (Parco Agricolo Sud di Milano – PASM) with its 47,000 hectares [see figure 3 and 4] is one of the main agricultural park in Europe and covers one third of the Milan Metropolitan Region encompassing 61 municipalities. Within this Park 1,400 commercial farms are productive. The productive nature of this space is different from the "green belts" of other cities such as the London one and the peri-urban parks of Paris. The Milan Agricultural District (Distretto Agricolo Milanese) with its 1500 hectares of cultivated land, under the responsibility of Milan,

Figure 3 (top): Map of Parco Agricolo Sud di Milano – PASM. Source: Elaborated by Stefano Quaglia on Metropolitan City of Milan data, 2010

Figure 4 (bottom): Milan metropolitan rural system – Agricultural land use. Source: Elaborated by Massimiliano Granceri on ERSAF data, 2012

complements the PASM and contributes as well to what is named the *neo-ruralization* of the city. The strategic plan "Piano del Distretto Rurale di Milano" is oriented towards the promotion of production, marketing, territorial protection and safety and ecosystem and landscape services improvement. Milan Metropolitan Region and Milan Municipality clearly demonstrate that a solid food production sector and Economic Growth are compatible.

In Bangkok, a case presented in this section, the Green Space Action Plan 2009 highlights the idea of edible green space and the Bangkok Environmental Quality Management Plan promotes community gardens. The Global warming reduction action plan 2013-2018 proposes measures to increase the planting of trees, including fruit trees, along the roads. The Bangkok 2020 plan addresses the role of peri-urban farming areas to enhance urban resilience and envisions that such areas can be an emergency food source and floodways for drainage water to the sea in the time of severe flooding.

FROM FOOD NEEDS TO ADDRESSING NUTRITIOUS FOOD NEEDS OF THE POOR

What C. Delgado describes in the Belo Horizonte article, included in this section, is the planning processes and the municipal policies which enabled the city to both provide an increased proportion of its food needs, but more importantly, to increase the affordability and the accessibility of nutritious food, primarily for the low income families, living in the most deprived areas. This is rare enough in cities from the global south to be underlined. Here are some of the facilities that resulted from the late 1990's Plan: restaurants offering 17,000 nutritional meals a day at affordable prices in various neighbourhoods, including poor ones; meals provided to public institutions such as primary schools; food stores selling basic food items at affordable regulating prices of; and, food banks connected to the zero hunger national strategy.

The experience of New York City (NYC) described in Nevin Cohen's chapter, in our forthcoming book, also addresses the provision of nutritious food to the poor. However, the emphasis of this article is an analysis of the effects that zoning and rezoning process can play in the achievement of this objective. Early efforts at food planning in NYC focused on reducing diet-related diseases. Out of a population of approximately 8.5 million, approximately 1.36 million New Yorkers are food insecure and 1.8 million depend on federal supplemental nutrition assistance program (SNAP) benefits to buy food. More than half of adult New Yorkers are overweight or obese and 20% of kindergartven students are obese, with rates significantly higher among African Americans and Latinos than Whites. To provide more nutritious food options to neighbourhoods poorly supplied with retail food stores, zoning and strategic neighbourhood development plans were used to provide incentives for grocers to locate in neighbourhoods lacking access to fruits and vegetables and other healthy food. In 2009 the New York City Department of City Planning (DCP) created a programme called food retail expansion to support health (FRESH) which combined financial and zoning incentives for supermarkets in such neighbourhoods. The financial incentives include tax abatements and exemptions, while the zoning incentives allow property developers to build larger building that otherwise permitted under the existing zoning (one additional square foot of residential floor area for each square foot of grocery store space, up to 20,000 more square feet) by including a neighbourhood grocer on the ground floor. The rezoning process brought quite significant effects on the food environment, even when food was not an explicit consideration.

FOOD AS AN ECONOMIC DRIVER

[SEE PRINCIPLE 8]

Another key finding is that the food sector is an essential part of any urban economy. Our articles document how the simple integration of food into urban planning can *"maximize the economic performance of a city and employment"*. Analysis of experiences clearly shows that food contributes to "*innovation, creativity and the uniqueness of the local environment, culture and history, as well as the high environmental and social quality of the city's public environments"*[2].

Food activities make impressive contributions to job generation and increase the wealth in the city. Interestingly enough, and this is particularly

the case for the global south[3]. Food-related jobs include farmers, transporters and intermediaries that supply formal and informal markets, small scale and big scale companies and enterprises employees that transform food into commodities sold on markets and supermarkets. They also include street cooked food traders whose numbers are increasing in many cities. If one considers the whole food system (including, for instance, water supply at each stage of the food chain, or food waste treatment), food is for sure a major contributor to urban economies. Planning could play a much more positive role in facilitating the development and the optimization of these activities and the generation of appropriate spaces for each one of these activities to flourish in a healthful manner. This is what some of the cities included here are aiming to do. Both Indonesian cities presented here are giving an account of the quantity of low-end jobs that are generated through street food trade. One threads linking most of the cases is the crucial and vital importance of planning and developing the food supply segment of the food chain, with appropriated places and policies for fresh food markets, storages for occasional ones, rules and regulations to adapt food supply systems to the timings of the urban life and rhythm, for instance authorizing selling places early morning and late in the afternoon when people are going to work or from work to home.

GOOD NEWS – FOOD PLANNING TOOLS ARE BEING DEVELOPED AND REFINED

The good news is that over the past 25 years a solid set of food planning tools have been designed, experimented and adapted to local realities. They would deserve to be better documented and integrated into a manual illustrated with their applications and adaptations in cities. All these tools can be organized into five blocks and most probably would deserve further refinement.

The first one refers to food asset mapping well explained and illustrated by L. Baker in the case of Toronto and Greater Golden Horseshoe Region. The interesting contribution here is that two complementary mapping methods were devised, one at Metropolitan region and the other

at Ward level for the City of Toronto. Asset mapping at various levels (Metropolitan or Regional / Municipal / Ward / Communities) is essential not only to "provide ... important baseline information to understand how the food sector changes overtime" but to allow for multi-scalar planning, and define (see Bangkok narrative) the respective roles and contributions of public, community and private actors.

In addition to Toronto described in this section, there have been other food-related mapping projects, not included for lack of space, which should be mentioned. These efforts, developed and tested in cities such as Cienfuegos [Cuba], Valladares [Brazil], Rosário [Argentina], [see figure 5 and 6] as well as Bristol and London in Britain, identified potentially cultivable areas or areas suited to facilitate the development of a coherent food system and food chains. In the case of Rosário, the land mapping not only helped to identify where food related activities should take place and become part of the municipal plan, but was the starting point for the establishment of a municipal land bank. This land bank enabled the land to be used by poor urban farmers, through fiscal incentives for the owners and temporary leases to the producers. At other locations land mapping was consolidated and systematized in the early 2000s as part of the Municipal Urban Agriculture and Food-related Program and the Master Plan for the Metropolitan Region. The method was further simplified for cities from the global North and tested in London as "Green mapping". In Bristol, mapping and audit of productive land, including identification of best agricultural land, and of risks and threats from impacts such as change of land use and flooding, is proposed as an effective baseline for supporting the preservation of the agricultural land towards a more sustainable and resilient food system. In the case of Rosário, the land mapping not only helped to identify where food related activities should take place and become part of the municipal plan, but was the starting point to the establishment of a municipal land bank, to turn land accessible for poor urban farmers, through fiscal incentives for the owners and temporary leases to the producers.

A second tool is the pioneering IQVU (Index of Quality of Life) presented as part of Belo Horizonte narrative. This is a methodology to graphically combine different data sets to determine the need for planning and/or programmatic intervention. Various methods have been developed and in a nutshell they consist in "spatializing" indicators by wards, communities, or even by census units in order to visualize better off areas and the most deprived ones. What is new is that one of the dimensions of these maps relate to food deprivation, or quality of access to food. Local actors usually select city specific set of indicators. They are very useful for: 1.) land use planning and for food zoning; 2.) channeling public or private

Figure 5: City of Rosário, Argentina one of the world references in integrating food into urban planning. Photo credit: Yves Cabannes

Figure 6 : One of the major achievements of Rosário Food Plan and Urban Agriculture Program was to include extremely poor families and offer them opportunities to become urban farmers producing accessible organic food. Photo credit: Yves Cabannes

Figure 7 (right): Bristol. Index of multiple deprivation by ward. Source: Bristol City Council, Who feed Bristol? Towards a resilient food plan, 2011

investments, as brilliantly shown for Belo Horizonte; and, 3.) monitoring the implementation of programs to improve accessibility to nutritious food.

A third food planning tool, presented in this section, is the use of multi-stakeholder and community participatory planning of which Providence is an excellent example. Again, various methodologies have been designed, tested and refined for food planning. Probably the one that has been most widely implemented in different contexts is the multi-stakeholder policy formulation and action planning method (MPAP in short). It was developed by RUAF and its partners over the last ten years[4]. Among its innovative aspects it underscores the need to link policy formulation with concrete and immediate planning of actions, the importance of establishing a multi-stakeholder council or group that should become the owner of the planning process and its implementation.

A fourth and most familiar tool for planners consist of land regulations, such as zoning and the designation of development area planning, but with the difference that they consider land for cultivating food, for markets or agro-industrial zones. Our case from Indonesia illustrates how development pressure and poor planning lead to mixed results for informal food markets. The article about Bangkok illustrates more effective and successful land use regulation. To be noted is the fact that in many cities the cultivation of land for farming is not legal (even if sometimes tolerated).

A fifth set of instruments refers to monitoring tools. The food deprivation maps such as the ones used in Bristol [see figure 7, 8 , 9] or Belo Horizonte are excellent illustrative instruments. In a blink of an eye, the maps allow the progress made to reduce food access inequities to be recognized and map out the changes as they are occurring in the city. Bristol Map of community activity allows dynamic monitoring of additional food assets that have been implemented. In the case of Belo Horizonte, the IQVU map shows the location the various actions conducted by the municipality as part of its food plan. More importantly it gives clues to perceive to what extent food inequities have been reduced through time.

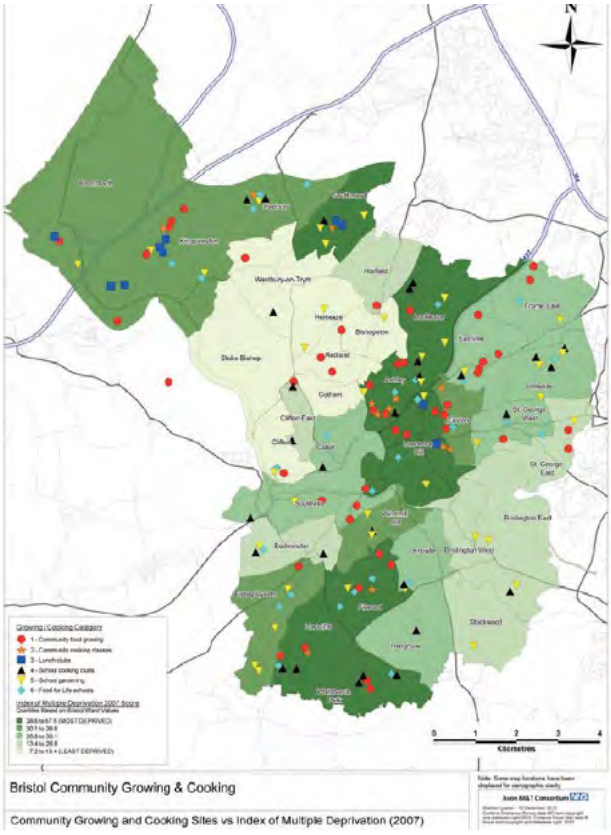
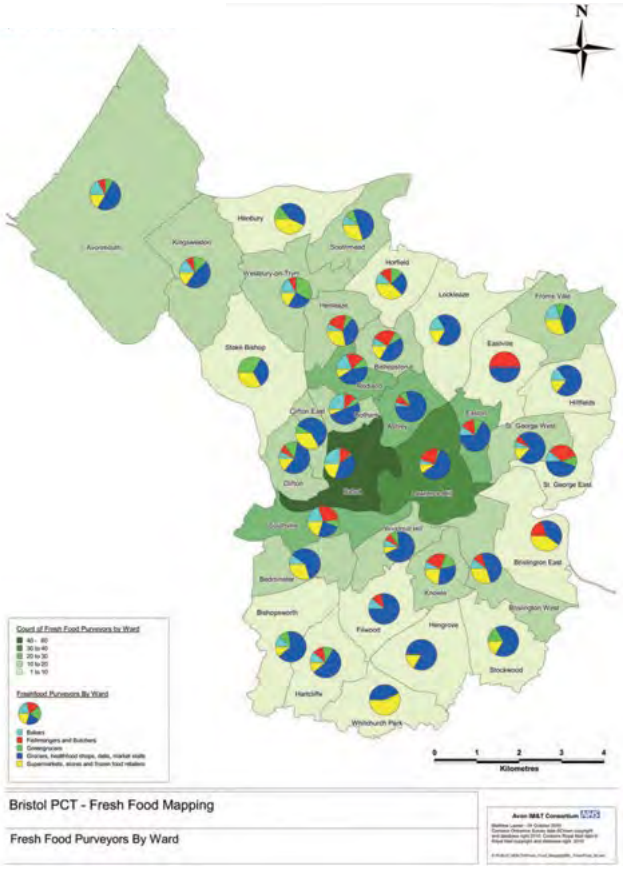


Figure 8 (top): Bristol. Map of community food activity. Source: Bristol City Council, Who feed Bristol? Towards a resilient food plan, 2011

Figure 9 (bottom): Bristol. Fresh Food Provision. Source: Bristol City Council, Who feed Bristol? Towards a resilient food plan, 2011



All these instruments, put together, are de facto a fantastic illustration of the ninth principle of the ten key dimensions for Eco-City Development: *"Planning for the future of the city is a visionary 'debate and decide' process, not a 'predict and provide', computer-driven process".*

DECISIVE ROLE OF CITY FOOD COUNCILS FOR PLANNING "FEEDING CITIES WE WANT"

One of the major finding by the cities, included in this *Review 12* special section, is the critical role played by Food City Councils to generate urban food systemic plans, and just as importantly, to implement them. In other words, City Food Councils are making possible to shift from the city we have to the city that people, as actors, want. Three of the cities here, Providence, Belo Horizonte and Toronto have set up Food City Council. The other three, Bangkok, Yogyakarta and Surakarta [Solo] have not.

As explained by L. Baker the Toronto Food Policy Council, established in 1991, has made significant contribution to key documents such as the Toronto Food Charter or the Official Plan. Interestingly the City Council also plays another key role in planning as it links up with the Metropolitan level *"it facilitated City engagement with the Greater ... and Farming Alliance",* and with the community level through community asset mapping. Similarly, as described by C. Delgado, in order to capture why the first municipal master plan in Belo Horizonte, Brazil in 1996 included quite an innovative Food Supply and Distribution sub chapter, one needs recognize the critical role of the multi-stakeholder Municipal Council, called COMASA. This food council, composed of members from *"the municipal executive, the civil society, consumer's organizations, workers, inhabitants and entrepreneurs"* played a critical role in policy making. In both cases each Council, tailored the complex local institutional landscape, provided the conceptual guidance so that plans could be implemented over long time frames without losing the original visions and plans. The Providence narrative illuminates the progression through which local actors started by grouping together to advocate for local food systems, then created an Urban Agriculture Task Force in 2004 that became instrumental to formulate Providence Interim Comprehensive Plan. Later this task force guided the development of the final Comprehensive Plan approved in 2014 that "provided even more robust treatment of food systems and strategies related to various components of the food system". Food planning appears, in most narratives, not only as means to get a proper plan, but just as importantly as a catalyst for gathering local food champions and actors together into a formal entity, in most cases a Food Council.

Adversely, the lack of a strong and legitimate Food Council, involved in food planning and that remain a driving force when the Plans are implemented, largely contribute to the partial failure of street vendor relocations in Solo and Yogyakarta. What is remarkable is that in Solo, as narrated in this volume by John Taylor and Lily Song, a strong participatory process was put into place and *"over 50 open dialogue meetings were held between the municipality and the mayor with street traders and other stakeholders*". Despite this genuine and unique effort, a couple of years later, *"almost all of these relocated traders had abandoned the new market for the streets".* This points out the limits of participatory planning and it seems that new forms of collaborative governance such as the Food Councils can be a place where problems can be anticipated, discussed and solutions found. It goes without saying, and is noted in the several articles, that strong permanent political will is critical for successful implementation of "*feeding cities we want".*

In summary, positive experiences of food planning are fully in tune with the principle 9 proposed in this book by J.K Kenworthy for eco-city development: *"Planning for the future of the city is a visionary 'debate and decide' process, not a 'predict and provide', computer-driven process."* The only additional lesson from the cases is that innovative forms of collaborative governance, such as Food Councils are of crucial importance to implement plans formulated even as a "debate and decide "process or through participatory planning and design.

As a concluding remark, the integration of food into planning over the last twenty years has shaped a new generation of more sustainable cities better able to feed their citizens. Various challenges are still ahead of us. One of them,

largely unsolved, is how to deal, from a planning perspective and primarily for the booming cities from the global south, with the multiple informal food supply chains, that are still and for many years to come part of an urban food security network. The answers contained in cities such as Bangkok, Solo or Belo Horizonte trigger our imagination. ◆

Figure 10 : Market of Ouanaminthe, on the Haitian / Dominican border. Photo credit: Yves Cabannes

ENDNOTES

1 see Plan from the chapter on Milan from the book integrating food into urban planning, Stefano Quaglia The Agricultural Park of South Milan (Parco Agricolo Sud di Milano – PASM

2 see the key dimension number 8

3 In the Global South, food spending accounts for as much as 50 % of the monetary incomes

4 See RUAF web site (**http://www.ruaf.org/**) and the RUAF book Cities, Poverty and Food; Multi-stakeholder Policy and Planning in Urban Agriculture for further information