

About RUAF

The RUAF Foundation is an international network of member organisations together constituting a leading centre of expertise in the field of (intra- and peri-) Urban Agriculture and City Region Food Strategies. RUAF seeks to contribute to the development of sustainable cities by facilitating awareness raising, knowledge generation and dissemination, capacity development, policy design and action planning for resilient and equitable urban food systems.

The RUAF Foundation and its many project partners see as their mission to contribute to more resilient and sustainable cities, the universal Right to Food, urban food sovereignty, reduced urban poverty and decent employment opportunities, improved urban environmental management and more participatory city governance. RUAF contributes by enhancing the capacities of local authorities and other stakeholders and facilitating the integration of (intra- and peri-) urban agriculture and city-region food measures in the policies and action programmes of local, regional and national governments, civil society organisations and private enterprises, with active involvement of the urban producers and other relevant stakeholders.

For more than 15 years, RUAF Foundation has supported governments, NGOs, CBOs, urban producer organisations, research centres and other stakeholders with training, technical assistance, action-research and policy advice. In addition, we support local, national and international knowledge exchange, advocacy and learning activities.

The RUAF Foundation is oriented towards the delivery of practical and high-quality results, applying a demand-driven and participatory approach while remaining flexible and providing room for change and innovation. RUAF Foundation is active in the following areas of work:

Resilient urban food systems

RUAF assists local and regional governments and other stakeholders in the analysis, planning and development of more resilient city region food systems by stimulating exchange between cities on this topic; providing guidelines, factsheets and toolkits; and providing staff training and technical assistance in both urban food system assessment and the design and implementation of adequate food policies and programmes, taking a multi-stakeholder and pro-poor approach.

Short food chains and local economy

RUAF enhances the capacities of local support organisations to assist groups of small-scale urban producers and other market actors in the analysis of market demand, in the establishment of direct linkages with potential buyers (e.g., consumers looking for organic food, restaurants, local government food procurement), in the creation of quality labels, and in the establishment and running of small-scale value-adding enterprises and product delivery systems.

Food security and social inclusion of the urban poor

RUAF collaborates with municipalities, NGOs and other actors to realise food projects with urban poor and disadvantaged groups (single women with children, jobless youth, displaced) to enhance their access to nutritious and affordable food

and to facilitate social inclusion through home-, school-, rooftop and community gardens, collective food-buying cooperatives and the promotion of social networks.

Productive reuse of wastes & wastewater

RUAF facilitates increased reuse of solid and liquid wastes in (intra- and peri-) urban agriculture through conducting applied research, developing safe reuse practices, training staff, assisting in the design of municipal resource recovery strategies and programmes, stimulating innovation in the agriculture-water-energy nexus and documenting best practices and business models that combine productivity with reduced environmental impacts.

Urban agriculture and city adaptation to climate change

RUAF supports local governments in the integration of urban agriculture and forestry into strategies for climate change adaptation and disaster risk reduction by training local staff, including food in urban vulnerability assessments and land use planning, and identifying urban agriculture and forestry models with high relevance for climate-change mitigation and adaptation (e.g., productive use of flood zones, agroforestry on landslide-prone slopes, productive rooftop gardens).

Experiences of RUAF and its partners are systematised and published in the form of books, working papers, policy briefs, guidelines and training manuals, and disseminated to various types of users, through the RUAF website. RUAF is publishing the Urban Agriculture Magazine, reaching about 800,000 readers globally today (28 Volumes since 2000). All publications can be downloaded from www.ruaf.org

RUAF acknowledges that its work could not have been implemented without the support of its member organisations, partner cities and project partners and the support of the following past and current donor organisations: The Dutch Ministry of Foreign Affairs (DGIS), the European Union, IDRC (Canada), UN Habitat, Ministry of Environment Norway, the Swiss Agency for Development and Cooperation (SDC), CDKN (UK), the World Bank, the Food and Agriculture Organization of the United Nations (FAO), United Nations Environmental Programme (UNEP), CARE (Netherlands), Welthungerhilfe (Germany), the German GIZ, Daniel and Nina Carasso Foundation, OXFAM Novib and CORDAID.

Foreword

In 2014, the RUAF Foundation continued to support governments and other stakeholders who wish to design, implement and monitor urban agriculture and urban food policies and programmes.

For this, throughout the last year, RUAF's network engaged in awareness-raising at various levels, in policy advocacy and information exchange, as well as in training, project development and action-research on urban agriculture and city region food systems.

In this work, RUAF demonstrated its innovation capacity in bridging emergency and development issues (see the work in Liberia and Gaza), in working at different scales (from household, to city to provincial level- see the climate change and WASH programmes) and with multiple stakeholders (RUAF's mainstreaming of multi-stakeholder planning approaches), in further exploring the full integration of urban agriculture in the urban economy (a.o thought value chain development) and in the urban ecology and metabolism (see the WASH, WABEF and GlobeUrbFood programmes) and in adapting to new urban challenges, specifically climate change adaptation and mitigation.

In 2014, RUAF focussed its field and training activities with local partners, mainly on cities and countries in Africa and Asia where urbanisation pressures are highest. RUAF worked in settings as diverse as the Gaza Strip, Liberia and Nepal, Bangladesh and Sri Lanka, Argentina and Ethiopia, Kenya and Ghana, Senegal, Benin and Burkina Faso, as well as in several countries of Europe. RUAF continued to produce tailor-made knowledge and information materials for different stakeholder groups. I invite you to visit the RUAF website for regular RUAF Updates, new issues of the Urban Agriculture Magazine, research reports and policy briefs produced by RUAF in 2014 (see www.ruaf.org).

The past year, RUAF also strengthened its own international secretariat and strategic partnerships. The Secretariat welcomed a new Knowledge Management and Information Officer, who will support website, UA Magazine and other RUAF information activities and products. RUAF joined a group of international organisations under a newly formed *Global Partnership on City Region Food Systems* (www.cityregionfoodsystems.org) and became a member of the International Advisory Committee of the Laurier Centre for Sustainable Food Systems (<http://legacy.wlu.ca/research/food>).

Several developments in 2014 rewarded RUAF for the quality of work performed by its network over the years. For instance, RUAF's Urban Agriculture Magazine became a member of The Essential Electronic Agricultural Library, a full-text, searchable, offline digital platform of highly ranked research journals, delivered to subscribers in 115 of the lowest income countries. Also, Food Tank included RUAF in its 2015 list of Global Food Organizations to Watch. Finally, Baltzer Science Publishers, jointly with RUAF and the USA-based Alliance of Crop, Soil and Environmental Science Societies, launched the new peer-reviewed journal SITOPOLIS, lead-edited by Wageningen University. This is the first international journal to focus on urban agriculture and regional food systems.

In the coming years and despite progress made, growing urbanisation and food insecurity and increasing climate change impacts, amongst other trends, make RUAF's work as relevant as ever.

“Every day in Cape Town there are households which struggle to access enough food. They eat foods that are nutritionally poor. They reduce meal sizes and numbers as their budgets shrink. They go hungry. And although the constitution states that everyone has the right to sufficient food and that the state must take measures to achieve this right, the food insecurity of the urban poor has been largely invisible to the state ” (Cape Times, 2013)

With upcoming projects in 2015, such as those on city region food system assessment tools to better understand the potential of localised systems of production, ensuring the Right to Food and Food Sovereignty in war-affected areas like Gaza and Jordan and for vulnerable producers and urban households world-wide, developing business models and new educational tools for a younger generation to engage in decent employment in urban agriculture, as well as support to a large number of cities to create resilient urban agriculture and city region food systems, RUAF's work will remain vital for all the cities and partners it engages with.

Bram Huijsman
Chairman of the Board

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The RUAF network contributes to the development of sustainable cities by facilitating programme development, action planning and research, capacity development and advisory services, policy design, lobbying and advocacy, knowledge management and sharing on urban agriculture and resilient and equitable city region food systems. Read our project highlights here.

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Management report

In 2014, attention to sustainable urban or city region food systems and localised food production grew increasingly prevalent, both internationally and locally. During the United Nations' World Urban Forum, held in Medellin in March 2014, an international call for city region food systems was launched (<http://cityregionfoodsystems.org/get-involved/>), carried forward by the RUAF Foundation and several other organisations.

At the same time, local and sub-national governments continued to introduce new policies and programmes in the different areas linked to urban food systems, such as urban and peri-urban agriculture, local procurement and school feeding, food markets, short-supply food chains and urban-rural linkages, food and organic waste reduction, recycling and re-use, sustainable diets and nutrition. This annual report describes how the RUAF Foundation supported several of these efforts over the past year.

A first pillar of RUAF's work in 2014, continued to be the “**planning and facilitating of local action**”. This involved RUAF's and its partners' engagement in implementing and monitoring development projects, training and building the capacity of local stakeholders and providing them with technical assistance. In 2014, RUAF engaged with over 90 local and international partner organisations to work in 30 cities in 24 different countries around the world. In doing so, we developed innovative projects and action-research in various areas aligned with local governments' main interests: urban and city region food systems; food security and social inclusion; city adaptation to climate change; short food chains and local economy; and resource recycling.

In 2014 for example, focus was placed on the analysis and development of business models for organic waste and waste-water recycling, for short food chains and multifunctional agriculture, as well as for market-oriented urban agriculture (see the SUPURBFOOD programmes). Such work in our view is key to up-scaling urban agriculture initiatives, jointly with others aimed at self-provisioning, at food sovereignty and at social inclusion. This is evident for example in our Liberia programme where the Greater Region of Monrovia and the national government are supporting urban agriculture both as a rehabilitation as well as development strategy.

Our Erasmusplus-funded URBAN GReen Education for ENTteRprising Agricultural Innovation project, started in late 2014, is to encourage path-breaking business initiatives based on educational development, knowledge exchange, and innovation among SMEs, policy makers and higher education institutions in several European countries. RUAF will be responsible with others for curriculum development activities under this new programme.

A second pillar of RUAF's work in 2014 centred on policy lobbying, engagement and development processes. These require “**building of an evidence base to underpin policies and action**”. In 2014, RUAF continued to refine and validate a framework to monitor the impacts of urban and peri-urban agriculture and forestry on climate change adaptation and mitigation (see the UN Habitat and CDKN support climate change programmes). The evidence generated in this way so far has been used to inform new local and provincial policies and programmes in various countries around the world.

For instance, and building on climate change monitoring research activities implemented by local Universities and supported by RUAF and international research organisations, the city of Rosario, Argentina, expanded its peri-urban protected green belt for local food production; in order to reduce the city's dependence on food imports, reduce related energy use and emissions and enhance access of its population to fresh and healthy food. In Nepal, RUAF, ENPHO and the Kathmandu Metropolitan City (KMC) have been supporting a large-scale rooftop garden programme, part of its environmental and climate change adaptation strategy. In 2014, KMC signed an agreement with the Ministry of Federal Affairs and Local Development to ensure that by the end of 2016 at least 20% of all households in the city produce vegetables from their rooftop.

It is also worthwhile to mention that in 2014 RUAF's network member IWMI contributed to [a study](#), that, for the very first time, estimates the global area of urban and peri-urban irrigated and rain-fed cropland. Such unprecedented data help to better appreciate the recent scale of urban and peri-urban agriculture worldwide and regionally, as well as discuss its current and potential role in global food production.

In the same line, RUAF recognises the need to better operationalise the concept of "city region food systems" and mapping of such systems, in order to further plan for development of more resilient city region food systems in cities around the world. In 2014 RUAF assumed the leadership of a three-year project, supported by the Carasso Foundation, that will help develop and test various mapping and assessment tools in seven partner cities. For this, RUAF will collaborate with the Laurier Centre for Sustainable Food Systems in Canada, as well as with the UN-FAO which is coordinating a similar project.

A third pillar of RUAF's work over the last year focused on helping to **"build the political will to act"**. Through direct policy support and lobbying, training, and through the organisation of new and innovative forms of awareness raising and information exchange, facilitating North-South exchange, –such as the "Urban Agriculture Cafés" organised in the Netherlands (see Grow the City project), complementing more traditional information materials such as RUAF's policy briefs and UA Magazine, RUAF aims to help fill the urban food policy gap amongst local and regional governments as well as international organisations. To do so, in 2014 RUAF supported- as over the past 10 years- multi-stakeholder and participatory planning processes, working with all relevant stakeholders to jointly develop a vision on the future of their urban food system, as well as a shared agenda of improvements and innovations needed to realize their vision. In Gaza for instance, the focus is on building a more resilient agriculture sector for the local market, one that would be less dependent on imports and exports. In Ghana and Burkina Faso RUAF partners were busy developing draft policy narratives on urban agriculture and its linkages to resource recycling, in the cities of Ouagadougou and Tamale. This work drew on results from both the Dutch WASH Alliance project in Ghana and on-going Urbanfoodplus research in Tamale and Ouagadougou. The policy narratives will be discussed at multi-stakeholder meetings to be held in 2015 in both cities.

A fourth and final key pillar of RUAF's work last year has been to **leverage change and support at international level**. In 2014, RUAF did so by participating in international conferences and events (e.g.: World Urban Forum, ICLEI-Resilient Cities Conference, Global Forum on Innovation for Urban Agriculture). RUAF also elaborated policy briefs and other information materials, and joined new alliances

such as the Global Partnership on City Region Food Systems, together with the UN FAO-Food for Cities, IFAD, Habitat International Coalition, the International Sustainability Unit, ICLEI-Local Governments for Sustainability, EcoAgriculture Partners, IUFN and others. This Global Partnership calls for more local and international attention to sustainable and resilient city region food systems. Its mission is to share knowledge and information, engage in international policy advocacy processes for achieving the Sustainable Development Goals, contribute to Habitat III and support local action (<http://www.cityregionfoodsyste.ms.org/>)

Continuing this work, in 2015 and jointly with the International Partners for Sustainable Agriculture (IPSA) and FAO Food for Cities, RUAF will advise the City of Milan and more than forty partner cities on drafting an Urban Food Policy Pact and corresponding Framework of Action. This will be to increase awareness on urban food systems, policies and practices, and to harness political engagement from cities for measures to make cities and urban food systems more resilient in the future.

All our activities are finally targeted at benefitting urban poor households and improving city's sustainability. The ca. 300 households in Kathmandu, Burkina Faso and Kesbawa supported by our joint urban agriculture project, implemented with UN Habitat, benefitted from increased food production, reduced food expenditures and increased income. Over 500 households involved in the WASH programme are benefitting from improved sanitation services, while more than 30 urban and peri—urban producer organisations in Greater Monrovia are being supported to enhance their members' access to land and financing. Our Gaza project is another example of how our work aims to contribute to increasing the Right to Food and food sovereignty for a vulnerable population, by promoting localised systems of production.

Cities have been given tools and instrument to better adapt themselves to climate change and related disasters and support the creation of resilient urban and peri-urban agriculture and city region food systems. We recognise however also our future challenges as reflected upon in the Strategic outlook concluding this annual report.

I sincerely thank the current RUAF network members, the International Water Management Institute, the Institute for Geography, Soil and natural Resources from the Chinese Academy of Science and ETC Foundation, together with all our project partner cities and organisations, strategic alliances and donors for the support provided and collaboration in 2014.



We look forward to keep you updated on our work in the coming year,

Marielle Dubbeling, Director



Activities and achievements

This section shortly describes the key programmes and projects implemented by RUAF in the 2014. According to its Strategic Plan¹, RUAF seeks its work to contribute to the following strategic objectives:

[1] **Localised systems of production for more inclusive economies:** RUAF promotes localised food production distribution and consumption based on environmental, social and economic sustainability that guarantees just income and decent jobs to all actors in the value chain.

[2] **Strengthening resilience of urban systems and the urban poor/vulnerable groups:** RUAF takes into account environmental, economic, social and equity sustainability, when designing urban development plans in order to reduce the vulnerability of urban systems and of the urban poor against the effects of economic crisis, volatility of international food markets and natural disasters (including climate change). In doing so, RUAF seeks to enhance equitable access of urban vulnerable groups to resources and decision-making structures.

[3] **Developing key strategic tools for creation of resilient urban and peri-urban agriculture and city region food systems:** Participatory and multi-actor planning, strengthening urban farmer groups and family-based business and social enterprises, and facilitating direct linkages between producers and consumers within a city region forms the basis for the creation of more resilient, sovereign and sustainable urban agriculture and city region food systems in RUAF's work.

RUAF seeks with these strategic objectives to contribute to its overall vision geared at:

[1] **Ensuring the Universal Right to Food:** urban citizens have a right to nutritious, healthy and culturally appropriate food at affordable prices at all times.

[2] **Urban Food Sovereignty:** RUAF believes in Food Sovereignty where local producers, processors, distributors and consumers have the right to define and control their own food systems and should be at the heart of food systems and policies rather than the demands of markets and corporations.

RUAF employs the following lines of activity in its work:

- Development projects
- Action-research
- Training and capacity building
- Advisory services and advocacy
- Knowledge management and sharing

¹ RUAF, **RUAF Foundation Strategic Development Plan 2014-2020** (2014:3), Leiden, The Netherlands, mimeo. [refer to website]

Strategic objective 1: Localised systems of production for more inclusive economies

Project 1: Enhancing urban agriculture for food security projects (Liberia)



The RUAF Foundation has been collaborating with German Welthungerhilfe (WHH) and Action Contre la Faim (ACF), and various other stakeholders, like local and national governments and urban producer organisations in Liberia, under the [EU-funded UPANI project](#). In 2014, two meetings of the Multi Stakeholder Forums of both the city of Tubmanburg and of the Greater Monrovia Region, were held. As a result of these meetings, separate meetings were organised by Monrovia City with its surrounding Townships on urban policies, and by Ministry of Agriculture and the Producer Organisation on extension. Another results is that the University of Liberia has included urban agriculture in its extension curriculum.

Under UPANI RUAF continued its study on food safety of urban food production in Greater Monrovia and Tubmanburg, focusing on the use of contaminated water and training of 100 representatives of over 30 farmer groups and selected key institutions on risk reduction at farm and market levels. And in partnership with the Monrovia City Corporation and the Liberian Institute of GIS (LISGIS), RUAF and WHH supported Monrovia City to include urban and peri-urban agriculture in its urban planning system. At city level and at township level this will facilitate access to land use and negotiations between land owners, famers and local authorities.

During the Ebola outbreak, the WHH team shifted focus (temporarily) to emergency food supply and support operations, as well as in raising awareness on Ebola. The project provided for buckets and protective materials that farmers could use at farmer markets. Farmers were also provided seeds. In addition, the project developed maps to locate vulnerable communities, and assisted producers located close to the waste plant who have had to temporarily move because their land was used for treatment of hospital waste.

Project 2: Promoting resilient and market-oriented urban and peri-urban agriculture development in Gaza

Since 2013, OXFAM Italy and the RUAF Foundation have been collaborating, under a Swiss Development Corporation- funded project, to [promote market-oriented urban and peri-urban agriculture in the Gaza Strip](#). The project aims at promoting local production for a local (domestic) market, thus reducing extreme vulnerability to irregular and restricted imports and exports. Assessment implemented in 2014 served to further develop a project action plan oriented at increasing resilience, by focussing on promoting low external input technologies, local innovation capacity (at producer level and among extension staff), green fodder production to reduce expensive imported artificial feed, promoting low technified vertical farming urban agriculture and solar-based cold storage to reduce dependence on irregular and expensive fuel-based energy sources. Intervention will prioritise two selected key value chains, including the dairy-fodder and palm-date sectors. Public policy and

governance frameworks enabling the urban agriculture market system to function better are supported through a Gaza wide urban agriculture Platform, involving over 40 key organisations representing the government, NGOs, Universities and private sector. In this way, the project foresees to build developmental approaches even in emergency and war situations as in Gaza. Although direct project implementation in 2014 was hampered by the outbreak of the Gaza war, team and capacity building have been continued as to continue and speed up implementation in 2015.

Project 3: GROW THE CITY



[GROW the CITY](#) organised in 2014 three “urban agriculture cafés” that engaged four Dutch cities and over 350 citizens in a North-South exchange on urban agriculture topics of their specific interest. For example in July 2014, a café was organised in the city of Rotterdam on “Harvesting Nutrients”, jointly with Eetbaar Rotterdam (Edible Rotterdam), the Nutrient Platform and the Municipality of Rotterdam. The event attracted people interested in the circular economy and in recycling nutrients for increased efficiency. Special guest Bizoola Gandaa, researcher at the University for Development Studies in Tamale (Ghana) talked about nutrient recycling in Ghana. Dutch examples discussed included Rotterzwam, a business that grows mushrooms in Rotterdam on a substrate from coffee waste.

Previous urban agriculture cafes of Grow the City were held in Groningen (on participation, planning and management of urban agriculture with guests from Rosario and Ghent), Almere (on Feeding the City with guests from Toronto and Milan) and Utrecht (on sustainable urban agriculture with a guest from South Africa). The [Urban Agriculture Magazine No 28](#) featured a special section on the outcomes of this project.

Project evaluation showed that the urban agriculture cafés were a unique medium to link policy makers to urban citizens and private sector engaged or interested in urban agriculture and urban food initiatives. They also served to engage in a North-South exchange in an interactive and informal approach. Use of different forms of social media (facebook, Twitter, elaboration of thematic factsheets, blogs and video clips),

actively involving between 650-700 people, ensured wide outreach and continuation of discussions and movements following the actual cafés.

Participating cities have used the cafés to establish or strengthen longer-term relations with civil society and private sector or to engage in new forms of urban agriculture activities. Several Dutch and other European cities have requested RUAF to continue organisation of urban agriculture cafés in their cities in the coming year(s).

Project 4: Evaluation of a rooftop farming pilot project and feasibility study of urban agriculture approaches in Cairo

In 2014, the RUAF Foundation was contracted out by the GIZ-supported Participatory Development Programme in Cairo Urban Areas (Egypt) to evaluate a pilot project on rooftop farming in the Cairo district of Ezbet el Nasr, as well as for a subsequent feasibility for a potential up-scaling of this pilot approach and others in the Greater Cairo Region. Two reports were produced which conclude that open rooftop farms would bear the highest potential for implementation, expansion and combined impacts in informal settlements of Cairo. Several recommendations were made to fine-tune and up-scale the initial pilot programme.

Strategic objective 2: Strengthening resilience of urban systems and the urban poor/vulnerable groups

Project 5: Improving household water, sanitation and hygiene (WASH) and productive use of household wastes in local food and energy production



Since 2012, RUAF collaborates with WASTE and other partners in the Dutch [WASH alliance](#) in five countries: Bangladesh, Ghana, Nepal, Kenya and Ethiopia. In 2014, the following innovative sanitation business models and pilots or demos were supported, that encompass different scales: from household, to institutional to city levels of intervention:

1) School sanitation: an integrated system of urine diversion, composting, and gardening, with rainwater harvesting and biogas. In Surkhet, Nepal, a toilet block was rebuilt, which involved the collection and use of the urine, the co-composting of the faeces with organic wastes and biogas production. Training materials and awareness raising activities were developed to facilitate replication in other schools in Nepal.

2) Public sanitation: improved services at selected public toilets, adding urine diversion and biogas digesters, plus improved access to water, improved user safety and toilet maintenance. In Tamale, Ghana, private operators of public toilets were trained by WASTE to improve their services to users; also, their business skills were enhanced. Designs for the public toilets were improved by RUAF partners

University of Development Studies (UDS), and by ENPHO in Nepal, that now allow for the separation of faeces from urine, for their easier collection, co-composting, and use in agriculture and bio-digesters for biogas.

3) Household-level urine separation and co-composting of faeces for application to own vegetable garden or sale of enriched compost to surrounding community. Also in Surkhet, Nepal, Ecosan toilets were installed by WASTE, some with an attached biogas digester, often combined with rainwater collection from the main house. In Dire Dawa, Ethiopia, entrepreneurs were supported in improving its businesses. With Dutch partner WASTE, business opportunities were identified and supported, like the construction mobile toilets and with the use and sale of urine in Nepal, and co-composting options in Tamale in Ghana. In Sathkira, Bangladesh, RUAF started collaboration with WASTE and Practical Action to further improve the (added value in the) sanitation value chain, by adding composting and re-use component to fecal sludge collecting and treatment.

4) Improving central systems for handling and treating solid organic waste and faecal sludge. In Tamale, Ghana, RUAF partners UDS and URBANET worked with over 100 urban farmers on an intensive testing of various mixtures of waste (quality of the compost, its marketing and sustainability). In Kenya, RUAF, WASTE and Practical Action, assisted the Municipality in designing co-composting and use in urban agriculture in and around the city.

Of crucial importance to all this work, is support provided to Multi Stakeholder meetings and platforms in these cities, to develop policy frameworks on urban agriculture, and monitor the sustainability (financial, institutional, environmental, social and technical - FIETS) of these innovations, for which an innovative framework has been developed and is being tested (see also project 12 below).

Project 6: Integrating urban agriculture into city climate change strategies

This [UN Habitat supported project](#) supported the integration of urban and peri-urban agriculture and forestry (UPAF) in local and provincial city climate change mitigation and adaptation policies and programmes in Bobo Dioulasso (Burkina Faso), Kesbewa / Western Province (Sri Lanka) and Kathmandu (Nepal). In collaboration with local and provincial governments, and other local actors, including Janathakshan and the Universities of Colombo and Morotuwa in Sri Lanka, ENPHO and ISET in Nepal, IAVS in Burkina Faso, and several urban producer and women groups, it “showcased” replicable UPAF models, including:

- Kesbewa, Sri Lanka (rehabilitation of rice fields and space intensive home-gardening);
- Bobo Dioulasso, Burkina Faso (multifunctional agroforestry land use on greenways and management of forest border zones), and
- Kathmandu, Nepal (productive rooftop gardening).

In parallel, the project has contributed to first achievements in the field of policy lobbying, uptake and intervention in each of the three cities.



By the end of the project in 2014, the following had been achieved:

Pilot projects

1. One hundred thirty nine (139) rooftop gardens have been established in Kathmandu City (KMC) area; another 100 households have received rooftop gardening training. Households have improved food self-reliance and household waste management.
2. In Kesbewa, Sri Lanka, one hundred fifty (150) space-intensive home gardens have been established. Over 17 ha of paddy lands have been rehabilitated and put into production contributing to reduction in flood risks.
3. In Bobo Dioulasso, Burkina Faso, one of the cities' greenways (6,9 ha) has been redesigned for multifunctional and productive land use. Over 100 surrounding households benefitted from 6% reduction in food expenditures.

Policy development

4. KMC signed an agreement with the Ministry of Federal Affairs and Local Development to ensure that by the end of 2016 at least 20% of all households in the city produce vegetables from their rooftop. KMC allocated around 30,000US\$ for a rooftop garden program for the upcoming fiscal year 2014/2015 and drafted a rooftop garden policy with support of RUAF.
5. The Sri Lankan Western Province has agreed and taken initial steps to develop a Provincial Climate Change Action Plan, featuring urban and peri-urban agriculture
6. The new model for productive use of low lying flood zones and paddy lands has been taken up in recent circulars under the national Agrarian Policy
7. The draft Kesbewa Urban Development Plan now seeks to integrate urban and peri-urban agriculture and forestry in its environmental protection zones
8. Three policy texts on the management and use of the greenways have been developed and adopted by the Environmental Commission of the Commune de Bobo Dioulasso.

Project results are documented in [Urban Agriculture Magazine 27](#).

Project 7: WABEF- Western Africa Bio-wastes for Energy and Fertiliser

RUAF is a partner in the CIRAD-led programme [WABEF](#). This focuses its work on Benin, Mali and Senegal, and it involves a larger number of other partners such as UCAD, IAGU, AEDR and SONGHAI.

The project is to develop and disseminate an innovative business models and a participatory approach to influencing policy on bio-waste management and for the adoption of viable anaerobic digestion technologies (biogas, bio-fertilisers and other productive uses of bio-slurry) throughout the Sudano-Sahelian region.

In 2014, RUAF inventoried practices in the Netherlands and Germany for a larger compendium of practices that may inspire African cities. As part of its inventory, RUAF organised a study tour in September 2014. Project partners from Senegal, Mali, Benin and France, visited Dutch and German experiments with the production of biogas, electricity and struvite (a phosphate mineral that can be used as fertiliser). Lessons from this tour, in business planning and monitoring, will be used to assess similar efforts in Senegal, Benin and Mali in 2015.



Strategic objective 3 : Developing key strategic tools for creation of resilient urban and peri-urban agriculture and city region food systems

Project 8: Globe-UrbanFoodPlus

This [Globe-UrbanFoodPlus project](#) started in 2013 and seeks to increase resource use efficiency and improve food security of West African cities through urban and peri-urban agriculture. In Tamale, Ghana, research focused on adapting project-tested technologies for use by farmers (like the use of bio-char), on mapping urban food flows, as well as developing a municipal agenda on urban agriculture and resource recycling. UDS and URBANET will link the work under WASH with findings under UrbanFoodPlus, in the development of a comprehensive framework on urban agriculture. In Ouagadougou, Burkina Faso, the platform comprises of representatives from the Ministry of Food Security, the City Mayor, credit institutions and farmers' and herders' organisations, to tackle the issue of access to land and financing. A sub-committee will draft policy recommendations in 2015. RUAF facilitated the set-up of the Multi Stakeholder Platforms in both cities, including the drafting of a policy narrative and policy recommendations (to be finalised in 2015), and as such stimulate discussion on research by UrbanFoodPlus and uptake in urban policies.

Project 9: Monitoring the impact of urban and peri-urban agriculture and forestry on climate change adaptation and mitigation

With funding from the Climate and Development Knowledge Network (CDKN), RUAF and its international research partners Wageningen University and University of Florida further designed and tested in 2 partner cities (Kesbewa, Sri Lanka and Rosario, Argentina) a framework for [monitoring climate change impacts of urban agriculture and forestry](#). This is in order to support evidence-based policy uptake and a better integration of urban agriculture into planning for climate change adaptation and urban-land use and economic development.

This project developed and applied an integrated monitoring methodology which consisted of the following tools (see for methodological guidelines developed: <http://www.ruaf.org/publications/research>)

- Urban temperature monitoring and calculating temperature related energy use and emissions;
- Run-off monitoring and calculation of flood risks;
- Monitoring of food flows, transport, kilometres and related energy use and emissions;
- Household food production, income generation and diversity; and
- Scenario development with policy makers to increase the presence of urban and peri-urban agriculture and forestry.

The project resulted in the following evidence-based policy recommendations and uptake (see also project 6):

- The Western Province is the first provincial government in Sri Lanka to include UPAF in its climate change adaptation action plan. The province is promoting the rehabilitation of flood zones through their productive use as a strategy to improve storm water infiltration and mitigate flood risks
- Rosario, Argentina is now determining the choice of urban tree species on the basis of temperature impacts and proposes further promotion of urban agriculture as part of watershed management. At the same time, in 2014, the municipality has doubled its peri-urban horticulture zone from 400 to 800 ha ensuring protection of local production areas.

“We see the importance of preserving and expanding areas for local food production. The municipality has included a new land use category in our urban development plan being ‘land used for primary production’. We have currently doubled the peri-urban agricultural protection zone from 400-800 ha”– Mónica Fein, Mayor, Rosario (August 2014)

The project also produced a set of knowledge materials for further reading:

- Background paper about the [Sri Lanka and Argentina experience](#) on integrating urban agriculture and forestry into climate change action plans
- Policy brief on [urban agriculture as a climate change strategy](#)
- [Methodological guidelines and local research reports](#) on monitoring the impacts of urban agriculture on climate change

Project 10: SUPURBFOOD-Sustainable urban and peri-urban food production

As part of the EU funded [SUPURBFOOD programme](#), coordinated by Wageningen University and implemented with over 15 research and SME partners, RUAF implemented in 2013, three desk studies, analysing in total 26 in-depth case studies on:

- a) Experiences with reuse of urban organic wastes and wastewater (and the nutrients contained in these) in (peri-urban) agriculture
- b) Experiences with developing short food supply chains
- c) Experiences with the development of multiple values of agricultural activities in urban and peri-urban areas (multifunctional agriculture).

The results of the thematic desk studies of experiences in the global South in the three thematic areas confirm the wide range and richness of urban and peri-urban agriculture (UPA) and urban food provisioning systems that have developed in city regions in the global South. They demonstrate that UPA in the context of city regions in the global South is associated with a diversity of social, ecological and economic functions including social integration, poverty reduction, social cohesion, education, tourism, leisure, green space management, flood control etc. The contribution of UPA to the closing of nutrients and water cycles at local level by means of waste (water) recycling and reuse in this respect can be considered as a specific type of ecological multifunctionality which is particularly well developed in the global South.

In terms of market and institutional arrangements the analysed initiatives also represent a relevant diversity in terms of the products, services and (public) goods generated by the initiatives as well as the mix of stakeholders from public administration, market and civil society that are engaged in the governance of UPA and urban food provisioning initiatives. In this respect, the important development of short food supply chains in relation to urban food systems in city regions in the global South is an expression of the fact that urban and peri-urban agriculture are strongly and increasingly integrated in wider urban socio-economic systems.

Building on this analysis, RUAF supported in 2014 further sharing of experiences with the 7 project partner European city regions, including Bristol (UK), Rotterdam (Netherlands), Riga (Latvia), Rome (Italy), Vigo (Spain), Zurich (Switzerland) and Ghent (Belgium), by participation in field visits, seminars (including the Rotterdam Urban Agriculture café –see project 5) and direct personal exchanges. Project recommendations to policy-makers and practitioners will be made available in form of a policy and practitioner brief in 2015.

Project 11: Policy lobbying and advocacy in Sri Lanka

In the past years, RUAF and network member IWMI did support the development of national policy statements on urban agriculture in Sri Lanka. The Western Province Provincial Council in Sri Lanka notified RUAF that, as of May 23rd, 2014, its Urban Agriculture Policy Statements will be implemented. These policy statements call for:

- Developing eco-friendly urban agriculture activities;
- Strengthening links between government, the private sector, non-government and civil society organisations in support of urban agriculture;
- Promoting resource recycling in urban agriculture;
- Utilising all types of available land for urban agriculture;
- Developing award schemes, credit facilities and insurance systems for urban agriculture;
- Integrating urban agriculture in agro-tourism schemes;
- Including urban agriculture in educational curricula;
- Making provisions for exchange of local and foreign experiences on urban agriculture;
- Facilitating new research in urban agriculture; and
- Effectively using mass-media to promote good urban agriculture;

Further policy lobbying efforts are on-going to further enhance policy formulation and uptake at national level.

Project 12: WASH Fact Sheets on FIETS Indicators

Under the Dutch WASH Alliance, sustainability is a leading principle. WASH services can only endure in the long term and be managed locally if five dimensions of sustainability (financial, institutional, environmental, technical and social - FIETS) are well attended to. In 2014, various fact sheets on the FIETS approach were developed by WASH partners. RUAF contributed with a booklet on financing, and two factsheets, one illustrating its multi-stakeholder approach and the other, recent work on co-composting with the University of Development Studies, Ghana. See <http://www.washalliance.nl/sustainability-portal>.

Project 13: Irrigated Urban Vegetable Production in Ghana Characteristics, Benefits and Risk Mitigation

The second edition of this book, published by IWMI, UrbanFoodPlus and RUAF Foundation, presents new research findings on urban and peri-urban agriculture and vegetable farming in Ghana's major cities. It focuses on risk and risk mitigation related to crop irrigation from polluted water sources, a widespread practice across Sub-Saharan Africa. Find the full book at:

http://www.iwmi.cgiar.org/Publications/Books/PDF/irrigated_urban_vegetable_production_in_ghana.pdf

Project 14: Urban Agriculture Magazine



In 2014, two new issues of the UA Magazine were produced and released. UAM 27 highlights research and experiences in urban agriculture and agroforestry as a strategy to reduce climate change and disaster risks. UAM No. 28 features innovations in urban agriculture, from small-scale and low-tech innovations to larger-scale and high-tech innovations, such as vertical farming. The Magazines can be downloaded from: <http://www.ruaf.org/publications/urban-agriculture-magazine-english-0>

Project 15: SITOPOLIS, Urban Agriculture & Regional Food Systems

In 2014, Baltzer Science Publishers, in co-operation with the RUAF Foundation and ACSESS, the alliance of Crop, Soil and Environmental Science Societies in the USA

launched the new peer-reviewed journal SITOPOLIS. Its Lead Editor is Prof. Han Wiskerke of the Wageningen University. Several RUAF Foundation members and other well-known experts in urban food systems have joined its Editorial Board. SITOPOLIS is a multi-disciplinary, peer-reviewed and open access journal focussing on urban and peri-urban agriculture and systems of urban and regional food provisioning in developing, transition and advanced economies. SITIPOLIS publishes original research as well as critical reviews. First articles/issues will be available on-line in 2015 at: www.sitopolis.org.

Project 16: IWMI-RUAF-Earthscan publication

As people increasingly migrate to urban settings and more than half of the world's population now lives in cities, it is vital to plan and provide for sustainable and resilient food systems which reflect this challenge. RUAF and its member organisations the international Water Management Institute edited a new book to present experience and evidence-based "state of the art" chapters written by a team of international authors, on the key dimensions of urban food systems and types of urban agriculture.

The book titled: Cities and Agriculture-Developing Resilient Urban Food Systems will provide urban planners, local policy makers and urban development practitioners with an overview of crucial aspects of urban food systems based on an up to date review of research results and practical experiences in both developed and developing countries. The book will be published in 2015 by Earthscan-Routledge London and New York.



Strategic outlook-Lessons learned

This section describes some key lessons learned from activities implemented in RUAF in 2014.

1. Urban agriculture bridging emergency and development issues

In 2014, RUAF was involved in two larger operational projects in conflict and crisis-prone areas, primarily the *Food security Project implemented in Liberia* [see project 1] and the *Market oriented urban and peri-urban agriculture development project in the Gaza Strip* [project 2]. Despite being seriously affected, by the Ebola crisis in Liberia and the Israeli-Gaza War in Gaza, both projects remained active and managed to re-orient working activities to address these challenges, while at the same time still responding to originally set project goals. During the Ebola crisis in Liberia, the local team collaborated on emergency food supply, and in Gaza -given the eroded resource and assets base of agricultural value chain actors- co-investment schemes were re-oriented to co-financing of innovative local production systems for a local market, thus also reducing dependence on imported inputs, –such as local green fodder production and solar energy cold storage systems. Lessons learned are the flexibility of the approach of RUAF and its partners to shift from a development perspective to an emergency one and back, and to swiftly adapt to dramatically changing situations [Monrovia, Liberia] or to positively address [Gaza Strip] extreme vulnerability of dependence on inputs as well as the market distortions brought by humanitarian assistance and channelling of international cash, building developmental approaches even in emergency and war situations. Beyond urban agriculture, very few issues sectors allow for such a back and forth movement between emergency and development.

Even if RUAF's experience in conflicts and crisis stricken areas is still limited, the lessons acquired this past year suggest that a comparative advantage of urban agriculture is to bridge development approaches and emergency ones. One important conclusion that fits RUAF's strategic objectives, is that investing into urban agriculture in cities hit by crisis and conflicts reduces the vulnerability of cities and their people, primarily the poor, and can play a role in rebuilding. Urban Agriculture helps them accessing nutritious food [strategic objective 2], even when borders are closed. Both projects contributed as well to building localised systems of production [strategic objective 1], and generate resilient city region food systems [strategic objective 3] and are in line with RUAF's vision in support of food sovereignty.,

Given the importance of urban agriculture in emergency contexts, a chapter addressing this issue was included into the upcoming new IWMI-RUAF-Earthscan publication "Cities and agriculture-developing resilient urban food systems" [project 16] that will be launched in 2015. In 2015, RUAF will also be engaged in efforts to promote and support food production in (Syrian) refugee camps in Jordan and Lebanon, and as such expand its work in emergency areas in future.

2. Interconnecting urban agriculture with the wider urban ecological and economic systems through short supply chains

One of the most innovative aspect of 2014 activities was to concretely show how to build linkages between urban agriculture and other key elements of cities as urban metabolism, this shifting from "rural agriculture taking place in and around cities to

urban agriculture as a real integrated part of the urban metabolism". RUAF did so through demonstration, policy, knowledge generation and capacity building. This specifically included linkages with Water, Sanitation and Hygiene (WASH) [project 5, WASH, Improving households water, sanitation and hygiene and productive use of households wastes (water and solid waste) in local food and energy production], bio-gas production with bio-wastes [project 7, WABEF, Western Africa Bio-wastes for energy and fertilizers], use of waste and recycling of nutrients for urban agriculture [project 3, Grow the city café]; Resource recycling [Project 8, Globe Urban Food Plus]. RUAF will also collaborate with IWMI-Ghana in 2015 in supporting enterprises for urban liquid and solid wastes recycling for food, energy and clean environment under the CapVal (Creating and Capturing Value) project.

Another crucial connection, still insufficiently dealt with in international agendas and actions, was developed with land issues, probably the most serious bottleneck for building sustainable local urban and peri-urban agriculture systems. This was particularly the case with the protection of flood zones for urban agriculture in Kesbewa, Sri Lanka or the protection of greenways and green belt zones for food production in respectively Bobo Dioulasso, Burkina Faso and Rosario, Argentina within the projects Integrating urban agriculture and forestry in city climate change strategies [project 6] and Monitoring the impact of urban agriculture and its integration into city climate change strategies [project 9].

These integration and connections efforts took place as well within short supply chains, linking better its various elements from input supply to production, processing and marketing. This was the case for instance, when promoting Market oriented urban and peri-urban agriculture in Gaza [Project 2].

Lessons from these projects point out that sustainable urban agriculture local systems of production [RUAF's Strategic objective 1] are directly linked to the capacity of the sector to generate strong connections [1] on the one hand with other urban dimensions such as land, waste, used water or transport and [2] on the other between the various elements that compose a short value chain.

A third level of integration relates to RUAF's effort to maintain a broad based approach to the various production systems that are part of "urban agriculture". Since its early days, RUAF does not restrict its approach to specific production systems, such as for instance vegetables or fish culture, or poultry breeding, but develops an integrative approach and expertise towards all potential production systems. In 2014, efforts were expanded towards various forms of urban forestry: this was the case in Gaza with the strengthening of palm dates supply chain [project 2], the promotion of agro-forestry in home gardens in Kesbewa and in the urban greenways in Bobo Dioulasso [project 6], the monitoring of temperature effects of different urban agriculture and forestry systems in Rosario [project 9] or with the issue 27 of the Urban Agriculture Magazine [Project 14], that highlighted the contribution of agro-forestry to climate change and disaster risks reduction.

RUAF also considers a whole range of open soil and land based production systems to various forms of (lower technified) vertical farming systems as discussed in issue 28 of the Urban Agriculture Magazine [Project 14]. Chapters on waste(water recycling and on several production systems (including horticulture, livestock keeping, agroforestry and aquaculture) are included into the upcoming new IWMI-RUAF-Earthscan publication "Cities and agriculture-developing resilient urban food systems" [project 16].

As a whole these various production systems together contribute to an increased resilience of the urban system and reduce the vulnerability of the poor [RUAF Strategic objective 2], while contributing to food sovereignty [RUAF vision].

3. Multi-scalar approaches needed to shift from project to city (or city region) level

RUAF and its partners have been able over time to develop and mainstream three multi- dimensional working approaches: a multi-thematic approach as expressed in the previous section; a multi-stakeholder approach that will be developed briefly in the next section and a multi-scalar approach presented below.

In 2014, progress has been made in approaching urban agriculture at multiple scales: at individual household level, primarily through the development project Improving households water, sanitation and Hygiene and productive use of households wastes in local food and energy production [project 5 and 7] or even considering part of the buildings, such as roof tops [as in Cairo-project 4 and Kathmandu-project 6, Integrating urban agriculture into city climate changes strategies], or at institutions such as schools in Nepal [project 3]. Other projects were developed at city level [such as the development of green corridors in Bobo Dioulasso [project 6], or at metropolitan or city region level such as in Greater Monrovia, Liberia, at provincial level such as in Santa Fé Province in Argentina or the Western Province in Sri Lanka [project 1 and project 9, Monitoring the impact of urban agriculture and its integration into city climate change strategies], and at national level, such as in Gaza [Project 2], or through developing a national policy on urban agriculture in Sri Lanka [Project 11] or linking to national urban planning in Liberia [project 1], and at global level, primarily through peer-exchange of knowledge among cities in the Global North and South as in the Grow the City cafés [Project 3] or in the SUPURBFOOD project that analyses cases from around the world on urban food supply and distribution [Project 10].

A major emphasis was given in 2014 to shift scale from neighbourhood and city levels to regional/provincial ones as is best illustrated with the active involvement of RUAF in the launching of a new scientific journal, called Sitopolis, The Journal of Urban Agriculture and Regional Food Systems [project 15] that deals, as title indicates not only with urban and peri-urban agriculture, but expands its scope towards regional food systems., the support RUAF provides to the ICLEI Cityfood network that links local and regional governments on urban agriculture and food systems and the RUAF up-coming project on CityFoodTools-Mapping of City Region Food Systems that will start in 2015.

Several projects also link up between various spatial levels, for instance as part of the Policy lobbying in Sri Lanka that designed multi-level governance models and links local level policies (urban development plans) to provincial and national policies [Project 11], in the Grow the City Cafés where local practitioners expose and share their experience in another city [Project 3] or in the WASH project [Project 5] where household level innovations are placed in the development perspective of specific neighbourhoods and cities and linked to institutional or public interventions in the WASH sector. Further linkages between operational scales of intervention will need to be strengthened in order to allow for scaling up of activities, while still maintaining localised systems adapted to local contexts [RUAF strategic objective 1].

4. Mainstreaming of multi-stakeholders approach and successful experimentation of participatory governance models

As expressed in the RUAF Strategic Development Plan, “Participatory and multi-actor planning is one of the key strategic tools for the creation of resilient urban agriculture and city region food systems”. Over the past 15 years, a multi-actor and participatory approach became a thread common to all RUAF activity fields and projects. In 2014, this approach is fully mainstreamed and remains extremely strong and successful in meeting RUAF’s strategic objective 3 [Development of tools for creating resilient urban agriculture and city region food systems] and contribution to RUAF’s vision on the Right to Food and Food sovereignty.

These participatory and multi-stakeholders approaches have been conducive in 2014, even more than in previous years, to innovative forms of participatory governance, tailored to local realities and local dynamics, that give voice and decision making power to quite a broad range of actors. This is the case for instance of the Special Committees and multi-stakeholder networks in Tamale, Ghana and Ouagadougou, Burkina Faso, set up in the context of the Globe-Urban FoodPlus project [project 8]. Another successful example comes from Monrovia, Liberia, where the governance model put in place as part of the Enhancing urban agriculture for food security project [project 1] continues to function well, beyond the planning stage, for the management of the whole Monrovia region including various townships, and is fully coordinated by Monrovia City Corporation. The methods designed and tested in various cities are transformed into fact sheets, manuals, articles and other knowledge products on multi-stakeholder approaches, within the WASH fact Sheets on indicators for sustainability areas [Project 3 and 12]. These three examples taken from various fields of RUAF activities: a development project in Liberia, action research in Tamale and Ouagadougou and Knowledge Management demonstrate clearly how a multi-stakeholder and participatory approach are central to RUAF’s work.

Good governance, participative and democratic multi-stakeholder processes are identified as keys to the progressive realisation of the right to adequate food. In addition, providing an enabling legal framework for pro-poor urban agriculture is another strategy applied by RUAF for implementing the right to food, with revision or formulation of such legal frameworks always being a central part in RUAF’s multi-actor approach as demonstrated in most of its projects [see project 1, 2, 6 and 9].

5. Adaptive capacity to address new urban challenges, primarily mitigation and adaptation to climate change

In 2014, as in recent years, RUAF showed its willingness and capacity to adapt its activities and projects to address critical emerging or uprising critical urban challenges and to adapt its expertise and working approaches to new situations also using these as opportunities for new insights and integration of approaches. A previous section already highlighted its flexible approach in situation of conflicts and crisis, for instance in Gaza strip [Project 2], or in Monrovia, with the support to urban agriculture for food security projects [Project 1].

Another major emerging field for action relates to the role urban and peri-urban agriculture (and agroforestry) can play in adaptation and mitigation of climate change. In 2014 RUAF clearly addressed these issues with two previously mentioned projects being particularly significant. The first one that started in 2012 in collaboration with

the UN- HABITAT cities and climate change strategy programme, seeks to integrate urban agriculture into city climate change strategies and achieved major results the Nepal government promoting rooftop gardening on a large scale in Kathmandu and the Western Province of Sri Lanka including urban agriculture and forestry in its Climate Change Adaptation Action Plan [Project 6]. Another Action Research project tested a framework for monitoring the climate change impacts of urban agriculture and forestry [Project 9]. Both of them contribute to achieve RUAF Strategic objectives to reduce vulnerability of urban systems and of the urban poor and to localize food production within a social and economic sustainability perspective [objective 2].

Development challenges for the future

Activities developed in 2014 contributed to turn RUAF strategy into reality and to meeting its strategic objectives. However important efforts will have to be developed in future to contribute to a larger extent RUAF vision on the Right to Food on the one hand and Urban Food Sovereignty on the other.

a. Further contributions to sustainable diets and nutrition

In RUAF's view, urban agriculture can contribute to all components of the Right to Food, including "availability, access, utilization and stability to safe and nutritious food" (FAO, 2005). However, an area that is not yet sufficiently given attention in RUAF projects, is the nutritious side of the Right to Food (access to healthy and nutritious food). This includes further understanding of what and how much of specific food products should and could be grown in specific areas (for example rooftops) or what surface areas are needed to provide a certain percentage of specific food products required for a nutritious diet to a household or a neighbourhood of 5000 people for example. In parallel, the promotion of agro-ecological production systems and protection of biodiversity are in our view key to achieve sustainable and healthy diets.

b. Strengthening vertical and societal governance

Food sovereignty requires in RUAF's view amongst others the guaranteeing of access to productive land, credit, appropriate technologies, markets and extension services for small holders; the promotion of decent jobs throughout the value chain; the orientation of agricultural production be primarily for (local/national) domestic consumption and democratic control through active participation and democratic decision-making of urban producers and small holder value chain actors to represent the interests of the members at local, national and international level. However, further work still needs to be made in all fields of activities to strengthen "vertical governance" and the links between the various tiers of governments. One challenge still present is to involve at planning or implementation stages central, provincial and local governments, without losing the progress made in building strong and permanent relations between local governments and local actors from civil society ["societal governance"]. In better linking these various levels, attention should also be paid in developing functional and political links from the bottom up, preserving the capacity of producers and other value chain actors to be part of the decision making processes at all levels. This is in line with RUAF's strategic objectives 2 and 3.

Yves Cabannes
Secretary, RUAF Board

Financial report

Preparation, control and approval

The annual account was prepared by the accounting firm Bos and Partners in Ede, the Netherlands in close coordination with the RUAF Director. The financial accounts were controlled by external auditors of B&P Audit, resulting in a positive verdict of the auditors on the financial statements of the RUAF Foundation. The Board of the RUAF Foundation approved the annual account 2014, pursuant to their review of the Director's report and the auditors' assessment. The full report can be downloaded from the RUAF website.

Reward payments

Following Dutch laws and "Code Wijffels" members of the RUAF Board of Trustees did not receive any financial compensation for their time invested in 2014. Staff salaries of the RUAF Director and staff are based on salary scales that reflect the job responsibilities (senior programme officer, junior programme officer, programme assistant) and number of years of job experience. In 2014, the salary of the RUAF Director (0,8 fte; 12 months) added up to Euro 53.8604 annual gross salary (including payment of pension premiums and holiday allowance). This remuneration falls within the maxima set by the Code Wijffels.

Profit and loss account and balance sheet

RUAF's turn-over slightly decreased in 2014, when compared to 2013. However, the year 2015 will see an increase in turn-over beyond 2013 levels, reflecting the solidity of the organisation.

The year 2014 also resulted in modest positive results for the financial year, allowing RUAF to further invest in its resource platform and in new strategic partnerships.

Recognition for RUAF's work

RUAF included in 101 Global Food Organizations to Watch

Food Tank highlights organisations across the globe that are working to fight food waste, combat the dual paradoxes of hunger and obesity, recognise the multiple roles of family farmers, increase nutrient density, protect agricultural diversity, and adapt to a changing climate. To celebrate 2015, they highlight [101 organisations who are playing a vital part in creating a better food system](#).

RUAF's Urban Agriculture Magazine included in The Essential Electronic Agricultural Library

As per June 2014, RUAF's Urban Agriculture Magazine became a member of TEEAL- "The Essential Electronic Agricultural Library". TEEAL is a full-text, searchable, offline, digital library of over 300 highly ranked research journals covering agriculture and related sciences. The base TEEAL currently covers articles published between 1993 and 2012, is delivered on external hardware to subscribing universities, colleges, and research institutions in 115 of the lowest income countries in the world. Please visit the web site at <http://www.teeal.org>.

Stakeholders' feedback on RUAF projects

Many steps have been taken by the Ministry of Agriculture (Western Province, Sri Lanka) in order to support and extend the production of food within the province. The Western Province Policy on Urban Agriculture holds an important place among them. Further to that, various programmes initiated by the Ministry encourage urban populations to practice organic home gardening. At this moment we would like to thank the Resource Centres on Urban Agriculture and Food security (RUAF), International Water Management Institute (IWMI) and Janathakshan for their supportive contribution in promoting urban agriculture within the province.

Udaya Gammanpila, Minister of Agriculture, Agrarian Development, Minor Irrigation, Industries, Environment, Arts and Cultural Affairs (Western Province)

The GROW the City project, led by RUAF jointly with the ETC Foundation and PPO with funding from OXFAM-Novib, has shown that there is a great potential for integrating international exchange in innovation processes in cities, as **Henk Meijer from the City of Almere**, The Netherlands organiser of the World Horticultural Expo Floriade in 2022, comments: "*The urban agriculture café is a good example of how Almere wants to grow towards becoming a green city. The collaboration with GROW the City brought us the value added we were looking for, both locally and internationally*".

Also **Andrea Calori**, guest in the Almere café on behalf of the City of Milan states. "*What I found impressive about the UA café was that politicians, students and professionals discussed so easily at the same level, in an open way and without hierarchy. And also the way in which Almere city mobilises young people and entrepreneurs as 'Urban Greeners' is an approach that we can use in Milan*".

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Argentina

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National University of Rosario, Center of Human and Environmental Studies, School of Architecture, Planning and Design
National University of Rosario, Facultad de Ciencias Agrarias
National University of Rosario, University Research Center Water and Environment
Municipality of Rosario, Secretariat of Social Promotion and Secretariat of Environment
Ministry of Water, Public Services and Environment, Santa Fe Province
Ministry of Production, Santa Fe Province
The Red de Huerteros

Bangladesh

Practical Action Bangladesh
Municipality of Satkhira
WASH Bangladesh

Belgium

University of Ghent
Roomer BVBA

Benin

Centre Songhai
Municipality of Porto Novo

Burkina Faso

The Commune of Ouagadougou
The Commune the Bobo Dioulasso
IAVS- Institute d'Application et de Vulgarisation en Science
Neighbourhood groups and schools
IWMI- The International Water Management Institute, Ghana

Egypt

GIZ-PDP

France

CIRAD
INRA Avignon Ecodéveloppement
AGREENIUM
VEGEPOLYS
INRA-AgroParisTech
IUFN-International Urban Food Network

Gaza

Oxfam Italy
Gaza urban and peri urban agriculture platform (with 40 member institutions)
Urban agriculture value chain actors

Germany

Fachhochschule Südwestfalen
hei-tro GmbH
Welthungerhilfe

Ghana

IWMI- The International Water Management Institute, Ghana
University of Development Studies
URBANET
The UPA forum of Tamale
WASH Ghana
Yekora Ltd.

Italy

University of Bologna
HORTICITY
Mammut film
STEPS
Grow the Planet
ESTA
Associazione Italiana per l' Agricoltura Biologica (AIAB)
Agricoltura Nuova Societa Cooperativa Sociale Agricola Integrata

Kenya

Practical Action
University of Nairobi
Nakuru Municipality
WASH Kenya

Ethiopia

Dire Dawa Municipality
RiPPLE
WASH Ethiopia

Latvia

Sabiedriba Ar Ierobezotu Atbildibu- kalnciema Iela KQ
Nodibinajums Baltic Studies Centre

Liberia

Welthungerhilfe Liberia
Monrovia City Corporation
UPA Platform of Greater Monrovia with over 30 members
Tubmanburg City Corporation
Ministry of Agriculture
University of Liberia
(over 30) Producer organisations

Mali

SNV Mali
Association d'Entraide pour le Développement Rural – Teriya Bugu (AEDR)

Nepal

Kathmandu Metropolitan City
Surket Municipality
ENPHO-The Environment and Public Health Organisation, responsible for the initial diagnosis and pilot project coordination
ISET-The Institute for Social and Environmental Transition, responsible for impact monitoring
NEFEJ-The Nepal Forum of Environmental Journalists, responsible for outreach and dissemination, as well as policy review studies
Women and community groups
Practical Action
WASH Nepal

Senegal
CIRAD
African Institute of Urban Management (IAGU)
Université Cheik Anta Diop (UCAD)

South Africa
Abilimi
FarmedHere

Spain
Universidade de Vigo
Comunidade de Montes Veciñais en Man Común (CMVMC) de Vincios
Surcos Urbanos
Grupo de Investigación en Arquitectura, Urbanismo y Sostenibilidad

Sri Lanka
Janathakshan Ltd
Kesbewa Urban Council
Ministry of Agriculture, Agrarian Development, Minor Irrigation, Industries and Environment, Western Province, Sri Lanka
The University of Moratuwa
The University of Colombo
Rajarata university of Sri Lanka, Department of Agricultural Systems, Faculty of Agriculture
IWMI- The International Water Management Institute, Sri Lanka
Neighbourhood, community and producer groups

Switzerland
Maschinenring Plus AG
Research Institute of Organic Agriculture (FiBL)

The Netherlands
Netherlands Water Partnership
WASTE
Rain Foundation
ICCO
SIMAVI
Artsen zonder Grenzen
Practica Foundation
IRC
Both Ends
Centre for Development Innovation
Wageningen UR (Rural sociology, LEI, Plan Research and Protection)
Cities of Almere, Rotterdam, Utrecht and Groningen
Oxfam-NOVIB
Institute for Social Housing
Ministry of Economic Affairs
Ministry of Foreign Affairs
CARE Nederland
The Hague Academy for Local Governance
Royal Tropical Institute, KIT
Spontaneous Cities
VNGI
Stichting Uit Je Eigen Stad
Willem & Drees BV

United Kingdom

University of Gloucestershire
University of the West of England
The Community Farm Limited
F3 Consultants Co-operative CIC

Strategic International Partners

ICLEI-Local governments for Sustainability
Vertical Farming Association
Plantagon
Communitas Secretariat
UN FAO
UN Habitat
International Sustainability Unit-Prince of Wales Charity Foundation
Habitat International Coalition
Global Forum on Innovations in Agriculture