SECOND EDITION

COMPENDIUM OF INSPIRING PRACTICES ON URBAN-RURAL LINKAGES:
Implementation of Guiding Principles and Framework for Action to Advance Integrated Territorial Development
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UN-HABITAT
TABLE OF CONTENTS

LIST OF FIGURES ........................................................................................................................................ VI
LIST OF ACRONYMS ................................................................................................................................ .......... IX
FOREWORD .............................................................................................................................................................. 1
INTRODUCTION .......................................................................................................................................................... 3
  Background ............................................................................................................................................................... 4
  About the Compendium ........................................................................................................................................... 7
KEY FACTS ABOUT THE SECOND COMPENDIUM ............................................................................................. 9
LESSONS LEARNED .................................................................................................................................................. 15
NEXT STEPS .............................................................................................................................................................. 17
GEOGRAPHICAL DISTRIBUTION OF THE SELECTED CASES ........................................................................... 18
SUMMARY OF THE APPLICATION OF THE GUIDING PRINCIPLES FOR URBAN-RURAL LINKAGES IN THE CASE STUDIES ....................................................................................................................... 20
SAMPLE OF 17 CASE STUDIES ................................................................................................................................ 41

2. South Korea: Seoul, Urban-Rural Coexistence Public Meal Service – Connecting city, rural communities, food, and people ............................................................................................................................................. 47
3. Colombia: Cali and Palmira, Building knowledge basis to understand the food system, players and enabling environment with a city region perspective ........................................................................ 55
4. England: Gloucestershire, Dynamic procurement system (DPS) ........................................................................... 61
5. France: Grenoble-Alpes Métropole, Local Food Partnership ......................................................................................... 67
6. Mozambique: Vilanculos and Inhassoro, MozTrabalha (Decent Work for Sustainable and Inclusive Economic Transformation in Mozambique) ............................................................................................... 74
8. Kenya: Kalobeyei, Strengthening the integration of hosts and refugees in Kalobeyei New Settlement ....... 85


12. **India: Tamil Nadu and Odisha**, Land-Use Planning and Management (LUPM) strengthening the culture of democratic and integrative spatial planning .................................................. 113

13. **Colombia: Metropolitan Area of Aburrá Valley**, Metropolitan Green Belt ........ 119

14. **India: Maharashtra and Andhra Pradesh**, RURBAN Platform under Integrated Rural Urban Water Management for Climate-based Adaptations in Indian Cities (IAdapt) ................... 125


17. **Chile, Colombia and Mexico**, Territorios & Bienestar Household Survey (T&BHS): Measuring micro-dynamics of rural-urban territorial development in three countries in Latin America 145

ABOUT THE CASE STUDY AUTHORS ........................................................................ 150
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIGURE 1</td>
<td>Urban-Rural Linkages: Guiding Principles</td>
<td>5</td>
</tr>
<tr>
<td>FIGURE 2</td>
<td>Geographical distribution of the case studies</td>
<td>9</td>
</tr>
<tr>
<td>FIGURE 3</td>
<td>Types of intervention on urban-rural linkages</td>
<td>9</td>
</tr>
<tr>
<td>FIGURE 4</td>
<td>Level of intervention on urban-rural linkages</td>
<td>10</td>
</tr>
<tr>
<td>FIGURE 5</td>
<td>Actors engaged in urban-rural linkages interventions.</td>
<td>11</td>
</tr>
<tr>
<td>FIGURE 6</td>
<td>URL-GP reflected by the collection of 17 case studies</td>
<td>12</td>
</tr>
<tr>
<td>FIGURE 7</td>
<td>URL Framework for Action entry points reflected by the collection of 17 case studies</td>
<td>14</td>
</tr>
<tr>
<td>FIGURE 8</td>
<td>Planting endemic trees in a finished plantation field by urban dwellers.</td>
<td>46</td>
</tr>
<tr>
<td>FIGURE 9</td>
<td>Ecosystem-network potential map (pond-network for damselflies)</td>
<td>46</td>
</tr>
<tr>
<td>FIGURE 10</td>
<td>Governance structure of Urban-rural Coexistence Public Meal Programme</td>
<td>49</td>
</tr>
<tr>
<td>FIGURE 11</td>
<td>A farm visit to a rural town</td>
<td>54</td>
</tr>
<tr>
<td>FIGURE 12</td>
<td>A storage place at a district-level public meal centre in Seoul; each section is designated for a participating institution. A local food hub in the paired rural town transports agro-food ordered one week earlier, on a daily basis.</td>
<td>54</td>
</tr>
<tr>
<td>FIGURE 13</td>
<td>Tamales in a typical popular market in Cali.</td>
<td>59</td>
</tr>
<tr>
<td>FIGURE 14</td>
<td>Typical popular market in Cali.</td>
<td>60</td>
</tr>
<tr>
<td>FIGURE 15</td>
<td>Fruits, salad and bread being displayed in a school lunch food counter in Gloucestershire</td>
<td>66</td>
</tr>
<tr>
<td>FIGURE 16</td>
<td>Hot food counter display in a school in Gloucestershire</td>
<td>66</td>
</tr>
<tr>
<td>FIGURE 17</td>
<td>North-east view of the Metropolis of Grenoble from the intercommunal “Maquis” Farm on the terraces of the Belledonne chain.</td>
<td>73</td>
</tr>
<tr>
<td>FIGURE 18</td>
<td>Collective store of farmers “La Ferme de Bonne” in the centre of Grenoble.</td>
<td>73</td>
</tr>
<tr>
<td>FIGURE 19</td>
<td>Demonstration of production techniques to some local producers, under a greenhouse in Vilanculos.</td>
<td>79</td>
</tr>
<tr>
<td>FIGURE</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>20</td>
<td>Women from a producers’ association in Inhassoro.</td>
<td>79</td>
</tr>
<tr>
<td>21</td>
<td>Pascha Uplands Premium Dairies &amp; Foods Ltd factory in Kagwe, urban centre.</td>
<td>84</td>
</tr>
<tr>
<td>22</td>
<td>An aerial view of Kalobeyei New Settlement in Turkana west sub county, Kenya 2019.</td>
<td>92</td>
</tr>
<tr>
<td>23</td>
<td>Pastoralist fetching water near Kalobeyei, Kakuma 2019.</td>
<td>92</td>
</tr>
<tr>
<td>24</td>
<td>Discussions amongst municipalities on developing strategies.</td>
<td>99</td>
</tr>
<tr>
<td>25</td>
<td>Inter-scalar capacity Development Workshops with municipalities.</td>
<td>99</td>
</tr>
<tr>
<td>26</td>
<td>Ouaga2 University in the village of Gonsè.</td>
<td>105</td>
</tr>
<tr>
<td>27</td>
<td>Zagtouli photovoltaic solar power plant.</td>
<td>105</td>
</tr>
<tr>
<td>28</td>
<td>Bird’s eye view of the rural market town of Qalat Saleh, located on the riverbanks of the Tigris River, in a vast fertile plain wedged between two of the wetlands that are part of the Mesopotamian Marshes.</td>
<td>112</td>
</tr>
<tr>
<td>29</td>
<td>View of the eastern section of the town of Qalat Saleh, which houses approximately 40,000 inhabitants, and whose Master Plan dates back to 1983 and had not been updated since.</td>
<td>112</td>
</tr>
<tr>
<td>30</td>
<td>Integrated district and regional plans.</td>
<td>118</td>
</tr>
<tr>
<td>31</td>
<td>The “problem tree” is one of the instruments to carve out causes and effects of land related issues in peri-urban areas. Location: Venketaraypalli village of Pochilima Gram Panchayat, Hinjlicut Block, Ganjam district, Odish.</td>
<td>118</td>
</tr>
<tr>
<td>32</td>
<td>Metropolitan Green Belt Strategy</td>
<td>121</td>
</tr>
<tr>
<td>33</td>
<td>View to the Aburra Valley and surrounding hills.</td>
<td>124</td>
</tr>
<tr>
<td>34</td>
<td>Open streams discharging wastewater from a village to drinking water resource.</td>
<td>131</td>
</tr>
<tr>
<td>35</td>
<td>On ground implementation of rooftop rainwater harvesting system for ground water recharge in Solapur.</td>
<td>131</td>
</tr>
<tr>
<td>36</td>
<td>Graduate students from the University of New Mexico collecting insect samples to quantify environmental improvements from environmental flows.</td>
<td>138</td>
</tr>
<tr>
<td>37</td>
<td>Students meeting with community members to discuss the challenges associated with high streamflow causing damage to acequia infrastructure.</td>
<td>138</td>
</tr>
</tbody>
</table>
FIGURE 38  Looking east from the Helderberg Escarpment in Thacher Park with the city of Albany in the distance.  ........................................................................................................................ 143

FIGURE 39  City of Albany skyline with the Helderberg Escarpment and Albany County hill towns in the distance. .................................................................................................................. 144

FIGURE 40  Agricultural worker in the chain value of Chile in Delicias (Chihuahua, Mexico) . 149

FIGURE 41  Agricultural workers filtering the source material (Chili) in the chain value of Chile in Delicias (Chihuahua, Mexico). ............................................................................................................. 149
## LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMVA</td>
<td>Metropolitan Area of Aburrá Valley (Área Metropolitana del Valle de Aburrá)</td>
</tr>
<tr>
<td>CBD</td>
<td>Convention on Biological Diversity</td>
</tr>
<tr>
<td>CIAT</td>
<td>The International Centre for Tropical Agriculture</td>
</tr>
<tr>
<td>COP</td>
<td>Conference of the parties</td>
</tr>
<tr>
<td>CSO</td>
<td>Civil society organization</td>
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<tr>
<td>DPS</td>
<td>Dynamic procurement system</td>
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<tr>
<td>GIZ</td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit</td>
</tr>
<tr>
<td>IAdapt</td>
<td>Integrated Rural Urban Water Management for Climate-Based Adaptations in Indian Cities</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>LUPM</td>
<td>Land-use planning and management</td>
</tr>
<tr>
<td>MGB</td>
<td>Metropolitan Green Belt</td>
</tr>
<tr>
<td>MUFPP</td>
<td>Milan Urban Food Policy Pact</td>
</tr>
<tr>
<td>NPO</td>
<td>Non-profit organizations</td>
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<tr>
<td>NGO</td>
<td>Non-governmental organizations</td>
</tr>
<tr>
<td>NUA</td>
<td>New Urban Agenda</td>
</tr>
<tr>
<td>RIMISP</td>
<td>Latin American Centre for Rural Development (Centro Latino Americano para el Desarrollo Rural)</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Goal</td>
</tr>
<tr>
<td>SDAGO</td>
<td>Greater Ouaga Master Plan</td>
</tr>
<tr>
<td>T&amp;BHS</td>
<td>Territorios &amp; Bienestar Household Survey</td>
</tr>
<tr>
<td>UCPMS</td>
<td>Urban-Rural Coexistence Public Meal Service</td>
</tr>
<tr>
<td>UoG</td>
<td>University of Gloucestershire</td>
</tr>
<tr>
<td>URL Framework for Action</td>
<td>Urban-Rural Linkages Framework for Action</td>
</tr>
</tbody>
</table>
Implementation of Guiding Principles and Framework for Action to advance integrated territorial development

URL-GP
Urban-Rural Linkages: Guiding Principles and Framework for Action

URL
Urban-rural linkages

UN-Habitat
United Nations Human Settlements Programme
I am delighted to present the second edition of the "Compendium of Inspiring Practices on Urban-Rural Linkages: Implementation of Guiding Principles and Framework for Action to Advance Integrated Territorial Development".

Increasingly, decision-makers and leaders, in national and subnational governments, international organisations, business and community organisations, are looking at what has worked, what has not and which lessons are transferrable to their own contexts. This Compendium contains 17 case studies and is a sourcebook for all those interested to learn from best practices.

Urban and rural communities do not live in isolation from each other. The prosperity and wealth of cities and communities - small, intermediate and large cities as well as rural communities - is an outcome of that which flows through them, such as people, resources and goods, rather than what they separately contain. UN-Habitat’s "Urban-Rural Linkages: Guiding Principles and Framework for Action" (URL-GP) aims to guide decision-makers and stakeholders towards common goals when implementing policies and strategies to harness the synergies created by the constant movements and flows between urban, peri-urban and rural areas.

This Compendium follows the publication of the first Compendium in early 2020. UN-Habitat has developed these series of case studies for urban and rural practitioners and leaders interested in territorial approaches to development. This second Compendium provides new inspiring examples of integrative efforts that apply the principles and actions of the URL-GP, showcasing practical entry points to harness the synergy of linking urban and rural, food and biodiversity, climate and health, soil and nutrition. The Compendium is relevant for actions at local and territorial levels and in different geographical locations. I hope that it will contribute to the discussion and help improve practice and policy responses, especially in volatile contexts such as pandemic and climate change.
The case studies selected highlight the necessity of respecting and promoting human rights, incorporating integrated governance mechanisms, ensuring the meaningful participation of people, local institutions and communities, and protecting and sustaining the areas and actors that are important to biodiversity and ecosystem services. Finally, the case studies point to URL-GP as a pathway to a balanced inclusion of both rural and urban actors in the work to localise and implement the Sustainable Development Goals (SDGs) and the New Urban Agenda through integrated territorial development.

Both the 2030 Agenda for Sustainable Development and the New Urban Agenda acknowledge the importance of regional and territorial approaches that integrate urban and rural functions to optimise their respective and mutually potentials. Managing urban-rural linkages to promote integrated territorial development will help make cities and human settlements safe, resilient and sustainable (SDG11). It will also support ending hunger and achieving food security and improved nutrition (SDG 2), ensuring sustainable consumption and production patterns (SDG12). It will also help cities take urgent action to combat climate change and its impacts (SDG13) among others.

I hope this Compendium will bolster your efforts to implement integrated territorial development. I strongly believe that we can ensure transformation to sustainable and resilient regions, cities and communities through enhanced policy and its coherent implementation at all levels of government and economic and social sectors, and by promoting efficient, equitable and nature-positive flows of resources and services across the urban-rural continuum.

Ms Maimunah Mohd Sharif
Under-Secretary-General United Nations
Executive Director UN-Habitat
INTRODUCTION

In early 2020, the outbreak of the Covid-19 pandemic turned life upside down around the globe, transforming the way we live, work, travel and socialize. As the pandemic continues unabated, the need to connect urban areas with their surrounding (rural) territories and to reduce the inequalities between urban and rural areas is both more urgent and more tangible. This Compendium of Inspiring Practices on Urban-Rural Linkages: Implementation of the Guiding Principles and Framework for Action to Advance Integrated Territorial Development was the product of an open call made in September 2019, before the outbreak of the virus. Nevertheless, it is expected that the insights and recommendations distilled from these case studies will inspire a number of actors across the rural-urban continuum to overcome the pandemic.

The convergence of the Covid-19 health crisis with other ongoing challenges for sustainable development highlights the fault lines that continue to divide societies around the world, including the urban/rural divide and the inequalities between urban and rural communities. During the first months of the pandemic, policy debates in many countries concentrated to a large extent on the trade-offs between the need to curb the spread of infection and address economic impacts, attempting to freeze the economy in place at minimum social costs. Now, there is an urgent need for action to recover the economy, to rebuild the social fabric while preventing further outbreaks. In that context, the need to enhance health systems across the urban-rural continuum and deliver other public services has become more urgent.

As the world’s environmental emergencies continue, a successful recovery from Covid-19 will depend to a large extent on the capacity to build back better. This will require new approaches and criteria to select the spaces where investments are allocated, and how policies are designed to reduce the likelihood of future shocks and increase society’s resilience to them when they do occur.

Urban-rural linkages became fundamental for many local, subnational and national governments facing disruption of globalized supply chains and restrictions in human mobility caused by closed borders and lockdowns. The pandemic exposed tangibly the role that urban-rural linkages play in the sustainability and resilience of cities and territories, manifested by flows of food or migrants for example.

Strong urban-rural linkages are a demonstrated safety net for many people in this crisis, including the most vulnerable groups in cities and rural areas, for whom food and nutrition security, access to health services and sanitation are a challenge. For many actors, addressing urban-rural linkages has proved crucial for the ability to recover from and adjust to the crisis, demonstrating that these links are a vital component to building back better and more resilient human settlements.

This complex convergence of crises has brought to the forefront the guidance and re-orientation that different actors and governments can gain from the substantive practical experience in places and communities that have addressed some of the issues mentioned above.
Exploring the relation between urban-rural linkages and health at a comprehensive level, including all the factors that contribute to human well-being, is not an abstract goal but a necessity in order to build back better from the present crisis. This opens the discussion to consider all the factors that contribute to human well-being and how they are integrated.

This second compendium showcases 17 case studies with the aim to provide inspiration and guidance to strengthen urban-rural linkages for increased resilience while promoting integrated territorial development.

BACKGROUND

Global megatrends and processes, including migrations, climate change, globalization, digitization and, in particular, urbanization, affect places and people along the urban-rural continuum differently. This differentiated impact has led to widening inequalities between regions, within metropolises and between urban and rural areas, sharpening the urban/rural divide. Global trends in economic growth - through urbanization - have tended to allocate most domestic and international resources (public and private) to urban areas. In 2017, 41 per cent of the rural population worldwide had no access to basic sanitation services and 18 per cent remained without access to electricity.

This divide is even sharper in the light of more recent global processes as digitization. Inequalities and disparities in spatial development, between urban and rural areas, form the crux of why strong urban-rural linkages are essential in distributing equal opportunities and benefits of the various global processes mentioned above, but also to strengthen the practices associated with the rural life and culture that becomes increasingly important with urbanization of the planet.

Actors such as farmers, especially women, smallholders and Indigenous Peoples, often embody these practices and are managers and caretakers of natural resources and ecosystems, connecting urban and rural realities. Discourse and action based on a political, social and geographical urban/rural dichotomy must evolve to that of collaborative development and functional linkages throughout the territory. Urban and rural areas depend on each other. They are inextricably linked economically, socially and environmentally and cannot be adequately dealt with in isolation from one another.

Promoting inclusive investment, finance instruments and systems to support both urban and rural areas and reduce inequalities in the provision of sustainable infrastructure and services are vital for a sustainable development that leaves no one behind. Likewise, policy interventions characterized by integrated and complementary approaches should be adopted to avoid exacerbating the dichotomy between urban and rural issues.

To support integrated and sustainable territorial development, UN-Habitat started a process in 2015 that culminated in 2019 with numerous stakeholders agreeing to 10 guiding principles and 11 entry points in a framework for action to strengthen urban-rural linkages.


The 10 guiding principles for urban-rural linkages are listed in the figure below and are: 1. locally grounded interventions; 2. integrated governance; 3. functional and spatial systems approaches; 4. financially inclusive; 5. balanced partnership; 6. human rights-based; 7. do no harm and social protection; 8. environmentally sensitive; 9. participatory engagement; and 10. data driven and evidence based.

**FIGURE 1. Urban-Rural Linkages: Guiding Principles**
The guiding principles are intended to be applied to policies, strategies, programmes and investment plans, and were developed for flexible application by different levels of government, intergovernmental organizations, development partners and stakeholders from academia, research, civil society, including grassroots organizations, and the private sector.

Application of the principles is made concrete through the framework for action.

The sections of the framework identify institutional and planning actions to create an enabling environment in selected sectorial and thematic entry points to foster inclusive economic, social and environmental sustainability across the urban-rural continuum. The framework identifies five actions to create an enabling environment for strengthened urban-rural linkages. It also provides six sectorial and thematic entry points to promote integrated territorial development.

### Actions to create an enabling environment for urban-rural linkages:

- **A.** Governance, legislation and capacity development.
- **B.** Integrated planning across the urban-rural continuum.
- **C.** Investment and finance for inclusive urban-rural development.
- **D.** Empower people and communities.
- **E.** Knowledge/data management for dynamic spatial flows of people, products, services and information.

### Sectorial and thematic entry points:

- **F.** Territorial economic development and employment.
- **G.** Coherent approaches to social service provision.
- **H.** Infrastructure, technology and communication systems.
- **I.** Integrated approaches for food security, nutrition, and public health.
- **J.** Environmental impact and natural resource and land management.
- **K.** The urban-rural continuum in the face of conflict and disaster.
Knowledge of and concrete evidence of improved flows of people, goods, services, information and capital leading to more functional territories can inspire other actors' strengthening of urban-rural linkages to help deliver sustainable development equitably. The *Compendium of Inspiring Practices on Urban-Rural Linkages* is an ongoing initiative at UN-Habitat for which new experiences - policies, strategies, tools, interventions, geographic or thematic projects - are continuously collected.

The compendium aims to inform both general and expert audiences about current practices and efforts around the globe to strengthen urban-rural linkages and advance integrated territorial development. It also seeks to demonstrate the application of the *Urban-Rural Linkages: Guiding Principles and Framework for Action* (URL-GP) at both national and sub-national levels. Experiences presented inform readers about the roles of different stakeholders in strengthening urban-rural linkages, including governments, intergovernmental organizations, development cooperation agencies, civil society organizations, academia, research institutions and the private sector. The practices undertaken by different stakeholders and their interaction with other relevant actors will hopefully inspire and promote increased collaboration and cooperation between them in other countries and situations.

Raising awareness of integrated territorial approaches and people- and place-based development across the urban-rural continuum is critical to managing a comprehensive, interlinked and truly participatory approach to sustainable development.

This approach - in which the strengthening of urban-rural linkages is a cornerstone - is aligned with the localization and realization of the 2030 Agenda for Sustainable Development and the New Urban Agenda, among other global agendas.

A first collection of eight case studies, *Compendium of Case Studies for the Implementation of the Guiding Principles of Urban-Rural Linkages and Framework for Action* was launched during the tenth session of the World Urban Forum (WUF10) in early 2020. This first collection represented only a small fraction of what are many cases of urban-rural realities in different regions. In that first compendium, the URL-GP were applied retroactively to selected cases that predated the development of the URL-GP. Nevertheless, valuable lessons were gained for future applications of the guiding principles and framework for action. Three features of these cases stood out in relation to the URL-GP:

- the importance of inclusive, participatory methodologies to assess, plan and execute actions that leave no one and no place behind;
- the crucial role of both vertical and horizontal integration of actors and levels of governance for success;
- the pragmatic and locally grounded approach that urban-rural linkages provide.

These characteristics also happen to be essential to the localization of efforts to implement the SDGs and the New Urban Agenda and were among the lessons learned from the first compendium.
This *second release* of the *Compendium of Inspiring Practices on Urban-Rural Linkages* is a sample of 17 experiences from all regions of the world. The collection gives a picture of some of the current practices to strengthen urban-rural linkages.

The selection of case studies was drawn from an open call made by UN-Habitat in September 2019. This new set of inspiring practices significantly enlarges the number of case studies, expands the scope of applications of the URL-GP, and includes more policy areas to strengthen urban-rural linkages such as biodiversity, nutrition and migration. Also, this new sample showcases the practices of a wider range of actors, including projects led by international institutions, development cooperation agencies, metropolitan authorities, on-going and past UN-Habitat projects and private initiatives. The experiences demonstrate that initiatives for strengthening urban-rural linkages rely on the participatory engagement of civil society and communities as well as on the cooperation and balanced partnership of different actors in urban and rural areas. The collection of 17 case studies is intended to give practical information to representatives of national and sub-national government, civil society organizations, private sector, professionals and practitioners, and to encourage cooperation amongst actors involved in various thematic issues relating to urban-rural linkages, which in turn will help facilitate integrated development outcomes.

In contrast to the first compendium, in this set of case studies the authors applied the guiding principles and framework for action in the summary analysis of benefits from integrated urban-rural development approaches. The benefits of applying the URL-GP to cases demonstrates the value of taking an integrated, territorial approach and helps to articulate the main dimensions of sustainability in pragmatic, actionable ways. These experiences provide concrete examples to sustain social, environmental, economic and cultural attributes needed to fulfil human rights and deliver human well-being while sustaining life on Earth. Editions of the compendium are evolving into an important complement to other tools to implement the URL-GP. The inspiring practices showcased here illustrate what is needed to advance more sustainable and integrated territorial development so that no one and no place will be left behind.
KEY FACTS ABOUT THE SECOND COMPENDIUM

The case studies in this compendium provide evidence of different interventions in distinct geographical regions around the world (Figure 2). There are five case studies from Africa followed by four each from Asia and the Pacific - more than half of the case studies are from these two regions. Three cases studies are from Latin America, and Europe and North America have two case studies each. The Middle East has one case study.

Figure 2 reflects the regions and countries where actors and networks on urban-rural linkages are stronger, considering the insertions into the global debate on urban-rural linkages that UN-Habitat aims to facilitate. The need for inclusion and strengthening of networks is further discussed in Lessons Learned.

4 Figure 2 should not be considered as indicative of the total number of interventions aimed at strengthening urban-rural linkages that are taking place in different regions.

Authors of the case studies in this compendium selected from several options and classified their case study according to the type of interventions that best described it. Figure 3 shows this classification. Of the interventions, 70 per cent were classified either as programmes or strategies, 29 per cent were classified as policies and 35 per cent as spatial plans.

FIGURE 2. Geographical distribution of the case studies.

FIGURE 3. Types of intervention on urban-rural linkages.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Design</td>
<td>6%</td>
</tr>
<tr>
<td>Spatial Plan</td>
<td>35%</td>
</tr>
<tr>
<td>Policy</td>
<td>29%</td>
</tr>
<tr>
<td>Strategy</td>
<td>41%</td>
</tr>
<tr>
<td>Programme</td>
<td>29%</td>
</tr>
<tr>
<td>Tool</td>
<td>29%</td>
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</table>
Most of the case studies (88 per cent) included in this compendium took place or are taking place in more than one municipality (urban-rural), evidence of the multi-scale and territorial dimensions of the interventions to strengthen urban-rural linkages.

The inter-municipal nature of the interventions aiming to foster integrated territorial development by promoting urban-rural linkages is also reflected in a small proportion that take place at the metropolitan level (29 per cent) or at state/regional level (12 per cent). In both cases, the geographical extension of the interventions takes place across administrative boundaries and involves several municipalities. A small proportion of the interventions, 12 per cent, are at the watershed level.

The watershed - as a geographical scale or level of intervention - demonstrates that urban-rural linkages may extend beyond administrative jurisdictions and may constitute territories that do not necessarily match existing administrative boundaries. Management of urban-rural linkages may demand innovation at scales that are not within the “traditional” administrative/geographical scale of interventions used by governments. Approximately a fifth (18 per cent) of the interventions showcased in this compendium take place under the jurisdiction of one public administrative authority at the municipal level. Nonetheless, the interventions that take place at this administrative level aim to connect urban and rural actors and employ cooperation and coordination among different sectors and actors. See Figure 4. Therefore, Integrated governance appears as one of the most important principles for urban-rural linkages as it is found in most of the interventions.

**FIGURE 4.** Level of intervention on urban-rural linkages.

<table>
<thead>
<tr>
<th>Level of Intervention</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Municipality (urban-rural areas)</td>
<td>18%</td>
</tr>
<tr>
<td>More than one municipality (Urban-rural)</td>
<td>88%</td>
</tr>
<tr>
<td>Metropolitan-Region</td>
<td>29%</td>
</tr>
<tr>
<td>State/ Regional</td>
<td>12%</td>
</tr>
<tr>
<td>Watershed</td>
<td>12%</td>
</tr>
</tbody>
</table>

The multi-scale and spatial extent to which urban-rural interventions take place imply a multi-stakeholder institutional environment. The set of case studies provides evidence of multi-stakeholder dimensions, which is at the foundation of interventions aiming to strengthen urban-rural linkages.
institutions are also actors commonly involved in urban-rural linkages intervention, accounting for almost 70 per cent of the interventions. Regional and national authorities as well as international organizations play a significant role in interventions to reduce urban and rural disparities and they feature in 75 and 50 per cent of the cases here respectively.

Organizations with a popular base in civil society, such as CSOs, NGOs, NPOs, grassroots groups and as the participation of citizens, also play a significant role in carrying out urban-rural linkages interventions. CSOs, NGOs, NPOs feature in 50 per cent of the cases and grassroots groups in 40 per cent. Smallholders and family farmers as a representative group are in 50 per cent of the case studies, demonstrating their important role in strengthening urban-rural linkages. Interventions to overcome the urban and rural divide and reduce spatial inequality have an important partner in smallholders and producers to accomplish this. Overall, civil society (organized and non-organized citizens) plays a fundamental role in integrated territorial development; sectorial and professional bodies and the private sector strengthen urban-rural linkages and feature in 60 and 50 per cent of the cases. All of this shows how different actors, sectors and, hence, interests can converge around initiatives seeking to strengthen urban-rural linkages. Likewise, it shows how interventions at the territorial level might break silos and single actor approaches to sustainable development.

### FIGURE 5. Actors engaged in urban-rural linkages interventions.

<table>
<thead>
<tr>
<th>Actors</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallholders small and family farmers</td>
<td>50%</td>
</tr>
<tr>
<td>University/Research</td>
<td>75%</td>
</tr>
<tr>
<td>Sectoral/ Professional bodies</td>
<td>50%</td>
</tr>
<tr>
<td>Civil Society (non-organized citizens)</td>
<td>40%</td>
</tr>
<tr>
<td>CSO/NGO/NPO</td>
<td>50%</td>
</tr>
<tr>
<td>Grassroots</td>
<td>50%</td>
</tr>
<tr>
<td>Private Sector</td>
<td>40%</td>
</tr>
<tr>
<td>International Organization</td>
<td>30%</td>
</tr>
<tr>
<td>District/ Neighborhood authorities</td>
<td>30%</td>
</tr>
<tr>
<td>More than one municipal authority</td>
<td>30%</td>
</tr>
<tr>
<td>One municipal authorities (City, County)</td>
<td>20%</td>
</tr>
<tr>
<td>Metropolitan Authorities</td>
<td>20%</td>
</tr>
<tr>
<td>Regional/ State Authorities</td>
<td>20%</td>
</tr>
<tr>
<td>National Authorities</td>
<td>30%</td>
</tr>
</tbody>
</table>

6 Civil society is by definition all non-state actors, whether organized or unorganized. The private sector is considered sometimes inside civil society or outside it and depends on the agency of the United Nations system. Hence, the first eight categories in Figure 5 can be considered to be civil society.
The involvement of more than one municipal authority, which reflects the importance of horizontal integration and coordination, and authorities at different levels of government - vertical integration - is mirrored by the fact that most of the interventions (88 per cent) provide evidence of the guiding principle of integrated governance. The guiding principle of locally grounded interventions is also applied by most interventions (82 per cent). Local context matters a lot and recognizing the particularities and local assets with which territories are endowed is fundamental to the success of interventions. Areas that are important to biodiversity and ecosystem services as well as natural assets are part of the local context, thus more than half of the interventions showcased (59 per cent) are relevant to the guiding principle of environmentally sensitive and the need to protect, sustain and expand natural assets.

Ensuring meaningful participation by groups of people, including the most vulnerable, local institutions and communities, by creating spaces, mechanism or tools is a key factor in the design of strategies to integrate territorial development. It is worth mentioning that future efforts and interventions to reduce urban and rural inequalities should also incorporate the financially inclusive principle and actions. This guiding principle is reflected only in a few (18 per cent) of the interventions in this compendium. More interventions and instruments that secure public and private investments not only for large or capital cities but also for smaller towns and cities and rural areas are needed.

FIGURE 6. URL-GP reflected by the collection of 17 case studies.
Application of the principles are made concrete through the Framework for Action. The framework identifies five institutional and planning actions to create an enabling environment. It also provides six sectorial and thematic entry points to foster inclusive economic, social and environmental sustainability across the urban-rural continuum (see Background). The case studies in this compendium reflect both the actions to create an enabling environment and the entry points for strengthened urban-rural linkages in varying degrees. The following paragraphs present some important facts about the application of the framework for action in the case studies. Figure 7 resumes this information in a diagram.

The URL-GP in its Framework for Action provides five institutional and planning actions to create an enabling environment for urban-rural linkages interventions. Most of the case studies (71 per cent) use governance, legislation and capacity development as an approach to create an enabling environment for strengthened urban-rural linkages. This goes along with the guiding principle of integrated governance, for the establishment of “whole-of-government” approaches. Multi-level governance, multi-sectoral and multi-actor mechanisms appear as necessary early step to carry out urban-rural linkages interventions. In the same vein, the promotion of integrated governance through capacity development, legislation, knowledge exchange or platforms to raise awareness is a first and necessary step to strengthen urban-rural linkages.

Most of the case studies (59 per cent) showcase some of the actions of the entry point integrated planning across the urban-rural continuum. These actions include the adaptation of multi-level, multi-sector and multi-stakeholder approaches to planning. This setting entails the engagement of several actors, emphasizing the participation of civil society and the close collaboration of urban and rural planning authorities. The engagement of several actors for planning, via participatory mechanisms, also shows some of the instruments to advance cross-sectoral planning at the subnational level. Cross-sectoral planning and the integration of sectoral requirements in planning instruments is an important step towards the formalization of networks to identify synergies that are in line with the potential and the constraints of the urban, rural and territorial ecosystem. The case studies, using integrated planning across the urban-rural continuum as an entry point, also showcase the implementation of integrated planning goals, recognizing the roles and interests of the different actors across the urban-rural continuum, but also aligning with local planning goals. All these actions create an enabling environment for strengthened urban-rural linkages, showing that this task does not rely exclusively on formal authorities.

Empower people and communities is also as an action used by most interventions (53 per cent) presented here. Together, inclusive partnerships and the adoption of participatory methodologies and frameworks to enhance cooperation among communities and other actors reflect the guiding principles of participatory engagement and balanced partnerships. These participatory approaches are often necessary to effectively address spatial, economic and social disparity between urban and rural peoples and territories.
Knowledge and data management for dynamic spatial flows of people, products, services, resources and information is also an important entry point for creating an enabling environment for urban-rural linkages. The generation of knowledge and data may lead to a better decision-making process, which in turn improves governance and legislation. The generation of data to improve management and decision making should also stem from the transparent collaboration of national and local governmental and private, academic and non-governmental actors. Closing data gaps, as demonstrated by the initiatives applying this action, is an important step to create a conducive environment for the urban rural linkages policy, legislation and governance. This also facilitates making urban-rural linkages cases.

The URL-GP, in its Framework for Action, also provides a set of actions to be used as sectoral entry points for strengthened urban-rural linkages and so promotes integrated territorial development. Environmental impact and natural resources and land management is among the most used sectoral and thematic entry point (47 per cent) by the case studies in this sample. The use of this entry point goes along with the principle of environmentally sensitive. Territorial economic development and employment (35 per cent) is the second most reflected sectoral and thematic entry point for strengthened urban-rural linkages in this sample. It is followed by integrated approaches for food security, nutrition and public health, which is used by 29 per cent of interventions. Interventions using coherent approaches to social service provision (18 per cent), and infrastructure technology and communication systems (6 per cent), as well as interventions conducting risks assessment, among other instruments, for situations of conflict and disaster across the urban-rural continuum (6 per cent) appear as sectoral entry point used in the interventions.

FIGURE 7. URL Framework for Action entry points reflected by the collection of 17 case studies.

A. Governance, legislation and capacity development
B. Integrated planning across the urban-rural continuum
C. Investment and finance for inclusive urban rural development
D. Empower people and communities
E. Territorial economic development and employment
F. Coherent approaches to social service provision
G. Infrastructure, technology and communication systems
H. Integrated approaches for food security, nutrition and public health
I. Environmental and impact and natural ressources and land management
J. The urban–rural continuum in the face of conflict and disaster
LESSONS LEARNED

The role of sub-national governments is fundamental for strengthening urban-rural linkages

The role of sub-national governments is fundamental for strengthening urban-rural linkages. Supporting decentralized cooperation between such governments is necessary to advance the implementation of the URL-GP. The actions contained in the URL Framework for Action, particularly in the actions related to governance, legislation and capacity development appear as a necessary early step, directed towards local and subnational authorities to take the lead role in interventions on urban-rural linkages.

The interventions showcased here demonstrate the need to continue enhancing inter-municipal and metropolitan cooperation. Capacity development appears as a first step and entry point in doing that. The creation of associative governance mechanisms which might lead to formal arrangements, integrated agencies and associations appears as a following step. The evidence provided by the case studies taking place at levels such as watersheds signals that the creation of integrated agencies at the subnational level might develop from the transboundary flows of water to other transboundary flows of goods, services, people, etc. The involvement of sub-national government is also essential to promote responsible, ethical and sustainable investment practices at the urban-rural continuum, and so increasing the number of interventions guided by the financially inclusive principles.

Scaling up urban-rural linkages interventions and strategies to public policies

Most of the interventions related to urban-rural linkages are led by actors that are not necessarily governmental authorities. Different types of actors, including international development agencies, global and local research institutes, private sector, universities, NGOs have played an important role in driving strategies and programmes. The interventions driven by these actors in turn have fostered policy dialogues, by building capacities, providing evidence of the need to formulate policies and partnerships to strengthen urban-rural linkages for policymakers and decision makers at sub-national levels. The tools and strategies put in motion by these actors have started promoting associative governance mechanisms that come with new opportunities but also new challenges. Policies supporting the roles of the actors have the potential to create synergies, scaling up associative governance instruments and tools and strategies for urban-rural linkages to governmental levels.

Empower actors of change through institutional and financial incentives

Strengthening of urban-rural linkages, as evidenced by the sample of 17 case studies, relies mainly on various types of partnerships, including organizations with a popular base.

Furthermore, the initiatives highlight the role of particular actors, making evident that strengthening of urban-rural linkages depends on supporting them and fostering their capacities. Actors who are managers and caretakers of natural resources such as farmers, especially women and smallholders and Indigenous Peoples, have a unique role in sustaining ecosystem health when adequately supported in both traditional and scientific ways. Their practices are the anchors in the human and natural chain of life that tie rural and urban realities together. Other actors in urban areas and across the urban-rural continuum, such as distributors and those in the informal sector, play a vital role in the human and natural chain, connecting urban and rural areas as well. Empowering these actors by promoting their practices and strengthening their livelihoods firms up urban-rural linkages. Incentives and financial instruments to encourage the activities of women, youth, Indigenous Peoples, smallholder farmers, micro, small and medium enterprises, is fundamental to the implementation of the URL-GP.

Connecting actors and inserting local networks into the global discussion on urban-rural linkages.

Having a geographical balance has always been important for UN-Habitat when showcasing inspiring practices. However, achieving this balance depends on the wider insertion of actors and networks into global discussions and debates. This is practically a condition for scaling up the implementation of URL-GP and the dissemination of inspiring practices for strengthened urban-rural linkages. There are many reasons for the insertion of actors strengthening urban-rural linkages but these are not discussed here. However, the engagement of actors and local networks of practitioners from different regions of the world are needed to bring substance and urgency to national and global policy spaces. Enabling clear and concise communication in an attempt to overcome language and cultural barriers is an important step in this direction. In response to this challenge and the need to bring together different actors, UN-Habitat has made the URL-GP available in six languages: English, Spanish, French, Portuguese, Chinese and Arabic.
This collection of inspiring practices is an ongoing effort at UN-Habitat to collect cases to document and share with the relevant actors seeking to enhance urban-rural linkages through the application of the URL-GP. Disseminating and sharing good practices that may be adapted for different countries lies at the heart of UN-Habitat’s work8 to achieve a better quality of life for all in an urbanizing world.

The case studies showcased here will inform further exchanges of UN-Habitat with partners in upcoming events and webinars, and in preparation for the review of major policy agendas relevant for urban-rural linkages in coming years. The case studies add knowledge and lessons from inspiring practices as examples to raise awareness among Member States, local and subnational authorities, and other stakeholders regarding the impact of urban-rural linkages on sustainable urbanization, territorial cohesion and national development.

This collection of case studies will inform the next compendium of case studies, which will anticipate the mix of issues and global processes converging next year in summits and COPs for food systems, biodiversity, climate and ecosystem/land restoration. It is hoped that this second collection will help to grow the knowledge, capacity and awareness of many actors on the importance of the transformation of the relationship of cities with their surrounding territories. The case studies provide an opportunity for many actors to learn from the application of the URL-GP and incorporate these principles in their work to support sustainable development.

8 UN-Habitat Assembly Resolution 1/5. Enhancing urban-rural linkages for sustainable urbanization and human settlements. Available at: https://unhabitat.org/hspha1res5-enhancing-urban-rural-linkages-for-sustainable-urbanization-and-human-settlements
Disclaimers

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

The scale = 1:5 million.

Source: United Nations Geospatial Services
SOUTH KOREA: Seoul
Urban-Rural Coexistence Public Meal Service – connecting city, rural communities, food and people

FRANCE: Grenoble-Alpes métropole
Local Food Partnership

IRAQ: Qalat saleh
- Piloting urban planning models for urban expansion

UGANDA: Koboko-Arua-Nebbi
- Integrated and multi-scalar planning in West Nile Corridor

KENYA: Kalobeyei
- Strengthening the integration of hosts and refugees in Kalobeyei New Settlement

KENYA: Kiambu county
- Rural urbanization / industrialization: Ensuring efficient spatial flows

MOZAMBIQUE: Vilanculos and Inhassoro
- MozTrabalha (Decent Work for Sustainable and Inclusive Economic Transformation in Mozambique)

INDIA: Tamil nadu and odisha
- Land-use planning and management (LUPM) strengthening the culture of democratic and integrative spatial planning

INDIA: Maharashtra and andhra Pradesh - RURBAN platform under integrated rural urban water management for climate-based adaptations in Indian cities (IAdapt)

KENYA: Kiambu county
- Rural urbanization / industrialization: Ensuring efficient spatial flows

JAPAN Aichi Prefecture.
The Aichi Method advocated in Aichi Biodiversity Strategy 2020

ENGLAND: Gloucester
Dynamic procurement system (DPS)

FRANCE: Grenoble-Alpes métropole
Local Food Partnership

KENYA: Kalobeyei
- Strengthening the integration of hosts and refugees in Kalobeyei New Settlement

INDIA: Maharashtra and andhra Pradesh - RURBAN platform under integrated rural urban water management for climate-based adaptations in Indian cities (IAdapt)

MOZAMBIQUE: Vilanculos and Inhassoro
- MozTrabalha (Decent Work for Sustainable and Inclusive Economic Transformation in Mozambique)
Summary of the Application of the Guiding Principles for Urban-Rural Linkages in the Case Studies
JAPAN: AICHI PREFECTURE
The Aichi Method advocated in Aichi Biodiversity Strategy 2020

Balanced partnerships are key to success

The Aichi Method is an example of a locally grounded intervention that seeks to achieve Aichi Biodiversity Targets by generating collaborative efforts to preserve and restore fragmented ecological networks across the urban-rural continuum in the Aichi Prefecture in Japan. This strategy also includes the “Aichi Mitigation”, which is a scheme to mitigate the impact for ecological networks due to urbanization or infrastructure development. This strategy is coordinated by the Aichi Prefectural Government. The “Aichi Method” seeks to realize the “coexistence between people and nature in Aichi” and to integrate the actions of different actors - using different tools - across the territory of the Aichi Prefecture. The “Aichi Method” aims to coordinate these actions across spatial scales, decision-making levels in close cooperation with multiple stakeholders, reflecting the URL-GP of integrated governance.

The Aichi Method combined with a green tax system implemented by the Aichi Prefecture generates monetary flow from urban to rural areas. Investment is not limited to urban areas, for most of the revenue is collected in urban areas, but it is expended across the territory, including rural areas. This reflects the principle of being financially inclusive. Balanced partnerships are also part of the Aichi Method. The strategy fosters alliances and networks, bringing together academics, landowners, administrative bodies and other relevant stakeholders to preserve ecological networks. Balanced partnerships are the key to success for the Aichi Method. It is an environmentally sensitive initiative, for it serves as a platform to showcase the sustainable actions undertaken by different stakeholders - people and private companies - with a view towards preserving biodiversity in its practices.
SOUTH KOREA: SEOUL
Urban–Rural Coexistence Public Meal Service – connecting city, rural communities, food and people

The building of integrated governance is pivotal for the success of this programme since it necessarily involves various actors in food systems across different regions and sectors, and multiple governments at different levels.

As a locally grounded effort to rebuild regional food systems, the Urban–Rural Coexistence Public Meal Service takes a comprehensive approach to link the city of Seoul and rural towns with consideration of the spatial and functional characteristics of each area in food systems. Concrete data of the supply capacity of candidate rural towns and demands from public institutions in Seoul has helped policymakers develop this programme, making this a data and evidence-based case. The building of integrated governance is pivotal for the success of this programme since it necessarily involves various actors in food systems across different regions and sectors, and multiple governments at different levels. As of October 2019, 13 district-level public meal centres in Seoul play an intermediary role in facilitating communication among stakeholders to create a balanced partnership between urban and rural actors. Regular meetings convened by the Seoul Metropolitan Government and the Seoul Civic Food Council ensure the participatory process of programme monitoring and evaluation for civic actors. For social protection for small-/mid-size rural farmers as well as urban residents, this programme helps smallholders to continue farming for a living by creating stable income sources from anchor institutions in the city. Not only do shortened supply chains between farmers and consumers reduce ecological footprints but this policy ultimately nudges farmers to make an incremental transition to sustainable agriculture by incentivizing the supply of environment-friendly products without chemical use, reflecting the URL-GP of environmentally sensitive. Lastly, this public food procurement policy aims to improve the right to food and health for all, regardless of social and economic background, by enhancing public meal service at local institutions.
The Academic Dialogue Platform on Food and Nutritional Safety is a multi-stakeholder platform that has brought together key local authors to discuss and coordinate agendas, aiming to build a sustainable food system for the city of Cali and its region. As a locally grounded intervention that integrates international principles and guidelines such as the URL-GP and pacts such as the MUFPP into the local context, the platform has demonstrated to Cali’s authorities the need to overcome food inequalities and assure the right to food and health of Cali’s inhabitants while strengthening the city-region food system. The platform has been instrumental in promoting political discussions to secure this right, reflecting the URL-GP of being human rights based.

The platform has been a tool for advocating for improved urban-rural food systems and governance, but also for integrated policy and decision-making among municipalities.

The platform has promoted the URL-GP of integrated governance, linking diverse actors from the public and private sectors, academia, civil society and NGOs to develop strategies, interventions and common research agendas. Through this multi-stakeholder approach, the platform has generated information and evidence on the state of Cali’s food system, including information on its nutritional state, consumption habits and key actors and stakeholders. This data-driven and evidence-based approach has also evidenced the need for policies and strategies that integrate Cali with adjacent cities such as Palmira and including the countryside. The platform has also promoted the use of gender-disaggregated indicators.

COLOMBIA: CALI AND PALMIRA
Building knowledge bases to understand the food system, players and an enabling environment with a city region perspective
In England, the Gloucestershire Living Lab seeks to scale up a dynamic procurement system (DPS) by embedding it in Gloucestershire’s new school food catering contract. It is intended to reshape the public service and procurement to respond to sustainable goals, while leveraging access to sustainable and healthy diets, opening the market of school food services to local and rural small-scale producers, and improving access to this valuable procurement budget. DPS is a **locally grounded intervention**, for it offers the possibility to match the real-time, seasonal supply capacity of local producers with demand, from on-line ordering preferences of school cooks.

By promoting sectoral integration and bringing together local producers and consumers, who are predominantly urban, DPS fosters the integration across spatial scales in Gloucestershire, reflecting the URL-GP of integrated governance. Embedding a DPS in school food procurement contracts would entail providing pre-contract qualification support to suppliers to make them market-ready by local authority contract officials, who must balance policy support for local producers with European Union competition regulations and very tight budgets for school meal provision. This effort addresses the **participatory engagement** principle of URL-GP. The Living Lab builds a **data-driven and evidence-based** case to inform the decision-making process of Gloucestershire’s authorities on the new school food catering contract, drawing from the evaluation of DPS pilots in other cities, interviews with multi-stakeholder networks and academic reviews.
FRANCE: GRENOBLE-ALPES MÉTROPOLE
Local Food Partnership

Adopting the URL-GP principle of *environmentally sensitive* has allowed the partnership to prioritize the protection of areas important for biodiversity and ecosystem services, creating a win-win situation for several actors in different sectors in economic, social, environmental aspects.

The Local Food Partnership exemplifies the URL-GP of *integrated governance*. It is a multi-stakeholder and multi-scale setting that brings together numerous actors, including local authorities, businesses, different socio-professional organizations and civil society groups. This partnership has worked and produced a roadmap collectively, integrating urban and rural areas using as a spatial framework the scale on which the local food system operates. The Local Food Partnerships reflects the URL-GP of *balanced partnerships*, for it has assured equitable participation of a wide range of actors, people and communities across the urban-rural continuum, reflecting the URL-GP of *participatory engagement*. This arrangement of different stakeholders working as partners has served to strengthen and sustain the local food system, aiming to re territorialize food. Adopting the URL-GP principle of being *environmentally sensitive* has also allowed the partnership to prioritize the protection of areas that are important for biodiversity and ecosystem services, creating a win-win situation for several actors in different sectors in economic, social and environmental aspects.
MozTrabalha seeks to enhance the urban-rural linkages by building capacity of local livestock and horticulture smallholder producers to participate in the local tourism and catering market, it highlights that environmental protection and decent work are mutually beneficial.

MozTrabalha seeks to enhance the urban-rural linkages in Vilanculos and Inhassoro, Mozambique, by building capacity of local livestock and horticulture smallholder producers to participate in the local tourism and catering market. This locally grounded intervention will enhance the horticulture and catering value chain, integrating Vilanculos and Inhassoro with their rural neighbouring areas. The programme reflects the URL-GP of participatory engagement, for it has served as a platform to ensure the participation of vulnerable actors as smallholder producers in the tourism and catering market and in the decision-making process of the programme. MozTrabalha also reflects the URL-GP of being human-rights based, for the project contributes to the promotion of labour rights by sensitizing entrepreneurs on their role and duties as employers and promoting labour rights in the realm of the tourist companies. By integrating several actors and economic sectors across the urban-rural continuum to strengthen the local supply chain, MozTrabalha also reflects the URL-GP of integrated governance. The strengthening of the local tourist catering supply chain has also meant the reduction of food miles, positively impacting the environment. This programme highlights that environmental protection and decent work are mutually beneficial, reinforcing the concept of green jobs.
Lari constituency, located 40 kilometres north of Nairobi, has historically been a region characterized by agriculture, cattle raising and subsistence farming as the main economic activities. Uplands Premium Dairies is a milk company that currently collects about 75,000 litres of milk from over 5,500 small scale farmers in Lari Constituency, Kenya, and the surrounding areas. The company has partnered with 5,500 small-scale milk farmers whose milk is delivered daily to the factory and the farmers receive a monthly payment.

The balanced partnership between the farmers and the private company has increased farmers’ incomes, leading to increased cash flow and the establishment of micro-finance companies in the adjacent towns. Thus, farmers, smallholders and new entrepreneurs have opportunities to access finance, reflecting URL-GP of being financially inclusive.

The solutions that the intervention intends to use are locally grounded and intended to alleviate the immediate challenges the farmers face in marketing their milk produce and increasing productivity. The company reaches out to farmers in large groups to sensitize and train them on the latest methods and techniques for improving milk quality and quantity of productions. These are usually in the form of seminars at town halls and public venues. It is conducted in a way so as to encourage a discourse and exchange of ideas, suggestions, results and feedback, reflecting the principle of participatory engagement. Knowledge diffusion through these training and extension programmes has created a notable increase in productivity from 5 to 14 litres per day per farmer.
The Kalobeyei New Settlement is a refugee assistance intervention that uses an area-based development approach along the urban-rural continuum by considering both refugees and host communities’ needs and the linkages with adjacent settlements and urban centres. Kalobeyei’s approach promotes the shift from a humanitarian, temporary and short-term approach to a more locally grounded intervention, through which both refugees and host communities’ needs are addressed by providing livelihood opportunities and enhanced service delivery. The intervention relies on the URL-GP of integrated governance, adopting a multi-agency, multi-sectoral approach, ensuring the intervention is informed by county and national (whole of government) institutions and regulatory frameworks.

The Kalobeyei’s Advisory Development Plan was elaborated through a multi-layered, collaborative and participatory process. The meaningful participation of host and refugees' communities was assured by providing training. Moreover, financial literacy training for youth and women to assure their full participation in the planning process was considered, incorporating the URL-GP of participatory engagement. Regular consultations were done with partner organizations, communities, households and stakeholders to develop a responsive intervention, reflecting the URL-GP of balanced partnerships. The principle of functional and system-based approach is also addressed in Kalobeyei, for the Advisory Development Plan recognizes the impacts that the intervention might have on resources flows, deploying strategies to promote protect and preserve social, economic and environmental resources.

KENYA: KALOBEYEI
Strengthening the integration of hosts and refugees in Kalobeyei New Settlement

The meaningful participation of host and refugee communities was assured by providing training. Moreover, financial literacy training for youth and women to assure their full participation in the planning process was considered, incorporating the URL-GP of participatory engagement.
This principle of being **functional and system-based** is also observed in the consideration of the functional linkages that the Kalobeyei New Settlement might have with neighbouring settlements. The Advisory Development Plan also is in line with the **environmentally sensitive URL-GP**, for this plan allocates land use for green belts to protect ecological corridors, for the creation of floods resilience, and for migration routes for pastoralist activities. The Kalobeyei New Settlement is also a **financially inclusive** intervention, for it allocated investment to communities for small enterprise and businesses development. This support also aims to ensure the right to an adequate standard of living and employment. The Kalobeyei New Settlement uses a **human rights-based** and **do no harm and provide social protection** approach, emphasizing the principle of ‘leave no one behind’, protecting refugees' rights, and advocating for a just and cohesive society by providing affordable basic services, housing and safeguarding cultural and natural heritage.
At its core, the “integrated and multi-scalar” programme uses an urban and territorial approach of integrated governance, through encouraging communication and integration effectiveness at different scales of planning, such as on the rural and urban, municipality and national government levels. The West Nile Region in Uganda has been recognized as a key area for development as part of USMID, and extended collaboration with these municipalities allows for functional and systems-based approaches, which create these interconnections. In the case of Arua, it acts as a nodal point along the West Nile Corridor for other secondary or tertiary municipalities, promoting the flow of goods and services, trade and resources. Using the systems approach, the programme is focused on locally grounded interventions, with reference to global (SDGs, the NUA, Global Compacts etc.) and national (Uganda Vision 2040, NDP I and NDP II, Altermite Graben PDP) agendas. This ensures the importance of using a data-driven and evidence-based approach, adopting locally adapted correlations between development factors (i.e. growth and territorial linkages). The data collection process also includes existing national frameworks and plans, territorial analysis, research on urban economy and municipal finance opportunities, and a local level public space assessment for a comprehensive multi-scalar profiling. The process through which the data collection was conducted also ensured balanced partnerships, which used Uganda’s institutional framework between national and local authorities, and involved stakeholders such as local organizations (Humanitarian Open Street Map, UNHCR, REACH organization) academia (Makarere University), community representatives, ministries, women and youth to name a few. Throughout the discussions at municipal level, participatory engagement is ensured, promoting the active inclusion of all stakeholders. The discussions emerged in a collective agreement to cooperate amongst small and medium towns to enhance inclusive growth rather than competing and divided patterns of growth.
BURKINA FASO: OUAGADOUGOU
Master Plan for the Development of Greater Ouaga, Horizon 2025 (SDAGO, 2025)

*Functional and spatial systems-based approaches* was a key and operational principle during the formulation of the plan, since allocating land for economic development and job creation involved taking into account other systems such as the provision of social services, the development of infrastructure systems, and the management of natural resources.

The Greater Ouaga Master Plan (SDAGO) focuses on managing the growth of several municipalities, including the city of Ouagadougou, Burkina Faso, and seven surrounding rural communes, by considering vocational uses of land and diverse stakeholder needs across the urban-rural continuum. *Integrated governance* has been a necessary principle for the formulation and implementation of the plan, since agreeing on issues of territorial governance and defining the role of each municipal government is indispensable. The plan formulation and its implementation has also promoted the vertical integration of national and municipal decision-making levels and involved various stakeholders and sectors. *Functional and spatial systems-based approaches* was a key and operational principle during the formulation of the plan, since allocating land for economic development and job creation involved taking into account other systems such as the provision of social services, the development of infrastructure systems, and the management of natural resources. SDAGO has considered the creation of a green belt and allocated several hectares for the creation of urban parks. Similarly, the plan contemplates the protection of plant species along streams and the creation and plans for the management of communal forests. Envisioning these areas in the plan will help to ensure ecosystem services and protect biodiversity in the Greater Ouaga Region, making SDAGO an *environmentally sensitive* plan.
The planning study “Addressing Expansion Needs in the Town of Qalat Saleh, Maysan Governorate” is the final output of one of 14 capacity-building components piloted under the European Union-funded Local Area Development Programme (LAPD II). This particular capacity-building component hinged on a locally grounded consultation process and joint planning effort aimed at reducing spatial inequalities and enhancing more context-specific spatial approaches, in line with national priorities, through the decentralization of decision-making. Specifically, the study looks into the spatial interlinkages and functional inter-dependencies between the rural villages and towns located along the Basra and Amarah highway and the unique but underdeveloped and under-serviced Hawizeh marshlands – home to the renowned but extremely poor Marsh Arabs tribes, whose rights to a dignified life is very much determined by their ability to make a living from their traditional fishing and buffalo rearing activities and the development of an environmentally-sensitive tourism sector. The study argues that targeted public investments in energy supply, improvements in the road system and the measured allocation of serviced land would help to leverage private
sector spending in the agro-industry and service sectors, ultimately fostering a balanced partnership between urban and rural investors. Data derived from the analysis of recent satellite imagery demonstrates the high number of vacant plots throughout the town of Qalat Saleh – evidence of a distorted land market caused by outdated land policies and lack of investor confidence. As in other rural towns without an updated master plan, the lack of affordable land is effectively pushing the poorest people to occupy pockets of government land earmarked for public use or build their homes on unserviced agricultural land at the fringes of the urban area. For the social protection of informal dwellers, many of whom are poor farmers seeking to bolster their livelihoods with an additional activity, the study recommends the urgent regularization and integration of informal settlements in future urban expansion plans.
In India, land-use planning and management (LUPM) as a locally grounded intervention sought to mainstream integrated territorial development in Tamil Nadu State and Odisha State planning culture. This was done through the formulation of state land-use planning policies, which set norms and standards for the formulation of district/regional and local land-use plans. The implementation of this policy at the local level required the formation of Village Development Committees (VDCs) and building the capacities of the local population in planning for the formulation of local land-use plans, assuring a participatory engagement. By interlinking the plans at state, regional and local scale, the LUPM has promoted vertical integration across different levels of governance. Furthermore, district/regional land-use plans enabled the visualization of multiple sectoral plans and the integration across cities, villages and rural areas, reflecting thus the URL-GP of integrated governance.
In the Metropolitan Green Belt, metropolitan authorities, the municipalities and its institutions, universities, civil organizations and communities contribute to the formulation of the plan, reflecting the principles of *integrated governance* and *participatory engagement*.

The Metropolitan Green Belt (MGB) is a planning strategy that addresses some of the most negative manifestations of planned and unplanned occupation or urbanization of the territory which is advancing over the hills, and the water basins of the Aburrá valley in Colombia. As a *locally grounded intervention*, the MGB aims to ensure the provision and conservation of resources within the Metropolitan Area of Aburrá Valley (AMVA) and the main goal of the MGB is the conservation of the ecological connectivity and the ecosystem in the AMVA. This *environmentally sensitive* strategy seeks to ensure the supplying and sustainability of natural resources such as water.

The AMVA is an organization that reunites 10 municipalities around three main themes: urban-rural planning, environmental issues, and public and collective mobility. In the MGB, an authority, the municipalities and its institutions, the universities, civil organizations and communities contribute to the formulation of the plans through a participatory process, reflecting the principles of *integrated governance* and *participatory engagement*. The MGB also contributes to one of the overall goals of the AMVA, which seeks the generation of alliances and articulation by actors in order to work for a common project. The MGB is a collective construction where each partner or actor assumes goals and commitments, reflecting the principle of *balanced partnerships*.
The RURBAN platform is based on the premise that no city or village can be considered in isolation and provides an integrated governance model. It also brings together the municipal departments and other allied sectors (such as industry, solid waste, agriculture, green area development, etc.) along with other stakeholders (such as industry associations, NGOs, civil society, institutes) to work in a balanced partnership.

The participation of marginalized and vulnerable people is ensured through the participation of NGOs working with such groups and which can effectively represent them in these types of forums.

Engaging with all stakeholders in a common platform also aims to preserve the basic human right of equitable access to water resources for all users, including marginalized and vulnerable groups, by discussing their needs and openly addressing issues of sharing of resources. Collaborative and participatory decision making in such open platforms support the do no harm principle. Decisions are taken in which the needs of all stakeholders are considered and no one group is adversely affected while developing water management plans.
The members of the RURBAN platform consider scientific data and evidence, and stakeholder expectations to formulate climate resilience interventions for water resource management. This data can be secondary data available online or it can be obtained from institutions specifically hired for this purpose. This supports data-driven and evidence-based decision making by the platform.

Due consideration is given to local conditions and priorities. Existing visions of development are considered to formulate a realistic and implementable action plan that includes locally grounded interventions. The platform works in the environmentally sensitive sector of water resource management by developing climate-adaptive measures that will protect these resources and enable sharing with all relevant stakeholders.
The primary purpose of the characterization of the Rio Chama watershed is to describe the watershed from a systems perspective. By evaluating the resources, drivers, stresses, flows and thresholds, the characterization will take a spatial systems-based approach, enabling decision-makers throughout the region to manage water in ways that improve the health of the system overall. One of the key indicators of system health will be whether water management along the river is environmentally sensitive and sustains resources and ecosystem services. Another aspect of the systems-based approach is to ensure that water is distributed equitably and used to benefit all stakeholders involved, not only the most powerful. Participatory engagement will be essential to ensure a functional and sustainable water management regime at the system scale.

The project focuses in large part on integrated governance across the physical watershed and across multiple levels of government and other decision-making sectors. Equally important is the governance at each individual scale. By ensuring that locally grounded interventions are beneficial to those immediately impacted and are not causing harm as the effects ripple throughout the system, the full governance matrix can create overall positive outcomes. The best way to ensure that these are achieved is to continually monitor and evaluate the state of the system and the performance of different management initiatives. By making data-driven and evidence-based decisions and continually adapting the chosen strategies based on new data and evidence, diverse agencies can collaborate on achieving shared goals for the shared environment.
The assessment explored urban-rural linkages from a rural perspective, generating findings and recommendations that are grounded in local experience and opportunity, and that advance a human rights-based approach to rural development in which rural communities have equitable access to urban resources and are represented fairly in urban-regional development agendas.

The Rural-Urban Linkages Needs Assessment sought to identify and assess linkages, needs and opportunities for improved connections between Albany County’s rural hill towns and nearby urban centres. The assessment explored urban-rural linkages from a rural perspective, generating findings and recommendations that are grounded in local experience and opportunity, and that advance a human rights-based approach to rural development in which rural communities have equitable access to urban resources and are represented fairly in urban-regional development agendas. This was achieved through data and evidence collection, including inventorying and reviewing sources of evidence on rural-urban linkages, demographic data, socio-economic data, regional economic development plans and agendas, tourism and recreation reports, watershed protection plans as well as a participatory engagement process to collect knowledge on rural-urban linkages from the perspective of local and regional actors.

This multi-stakeholder engagement has included the perspectives of rural actors (residents, elected rural officials) and regional agencies (actors) to start a discussion on rural-urban linkages in Albany County through local and bottom-up channels. The assessment has brought the need to strengthen urban-rural linkages into the public sphere, seeking to promote the integration of governance arrangements across spatial scales and across different levels of engagement and official decisions, as well as from multi-stakeholder perspectives. The assessment also applied the URL-GP of a functional and spatial systems-based approach, for it sought to identify spatial and functional linkages between Albany County’s rural townships and urban centres. This included natural, social and economic linkages experienced in the local community and supported or impeded by the county’s geography and linkages resulting from the county’s role as a governing body and service provider to rural and urban communities.
CHILE, COLOMBIA AND MEXICO
Territorios & Bienestar Household Survey (T&BHS): Measuring micro-dynamics of rural-urban territorial development in three countries in Latin America

The survey provides disaggregated data on the micro-patterns of households living in rural-urban functional territories. The survey is a data-driven and evidence-based tool to be used in research and policy design and the evaluation of territorially based policies.

The Territorios & Bienestar Household Survey (T&BHS) focused on people living in rural-urban functional territories in three Latin American countries: Chile, Colombia and Mexico. The survey was conducted in 2018 with a random sample of 12,000 households (almost 4,000 households per country). As a locally grounded intervention, the survey was adapted to the local context of each country; for example, in Colombia the survey included a post-conflict module to learn about the reincorporation of former guerrilla fighters into society. The survey considered rural-urban functional territories as the basis for the sampling framework of the surveys. This identification of functional territories is evidence of the URL-GP functional and spatial systems-based approaches and creates an understanding of the micro-dynamics of households in functional rural-urban territories and the spatiality of their livelihoods. Therefore, the survey provides disaggregated data on the micro-patterns of households living in rural-urban functional territories by capturing the mobility patterns and linkages of households between municipalities and urban and rural areas for labour and provision of goods and services, which form functional territories. Furthermore, the survey also captures the linkages among territories, as well as the socio-economic status and demographic information of these spaces. The survey is a data-driven and evidence-based tool to be used in research and policy design and the evaluation of territorially based policies.
Sample of 17 Case Studies
1. JAPAN: AICHI PREFECTURE

The Aichi Method advocated in Aichi Biodiversity Strategy 2020

ABOUT THE CASE

Author: Teru Kisuna

Location: Aichi Prefecture, Japan

When: Ongoing since 2010

Partners: Municipalities in the Aichi Prefecture, universities, NPOs, private companies, agricultural, forestry or fishery bodies, branches of national government, municipalities

Brief description: The “Aichi Method” is an example of the generation of collaborative efforts to preserve and restore fragmented ecological networks across the urban-rural continuum in the Aichi Prefecture in Japan. This strategy also includes the “Aichi Mitigation”, which is a scheme to mitigate the impact on ecological networks of urbanization or infrastructure development. This strategy is coordinated by the Aichi Prefectural Government. The “Aichi Method” seeks to realize the “coexistence between people and nature in Aichi”.

TYPE OF INTERVENTION

Spatial Plan
Strategy
Programme
Aichi Prefecture is the core of the third biggest metropolitan region of Japan. It is widely populated and urbanized with a prosperous industry in sectors such as automobiles, aircraft and machine tools. Both urbanization and industrialization have led to the disappearance of endemic ecosystems like Satoyama - hills (yama) around villages (sato) covered by open forest, which provided firewood or leaf soil, where characteristic endemic ecosystems have been fostered - and rural land which forms much of the landscape of the region.

Direct causes of degradation of endemic ecosystems are complicated; enlargement of urban area accompanied with a change in land use, insufficient maintenance of forests, over-planting of conifer trees, or modernization of irrigation systems for farmland. The "Aichi Method" advocated by Aichi Biodiversity Strategy 2020 was formulated to tackle these issues in 2010 to conserve and restore the ecosystem and habitat networks over urban, peri-urban and rural areas.

The "Aichi Method" has two major components. The first is to establish a sub-regional ecological network to restore/conserve the connectivity of ecosystems by creating/conserving green spaces and waterfronts. To achieve that, nine sub-regional ecological network councils were founded and led by the prefectural government. These councils, which cover all the territory of the prefecture, were conceived as platforms of collaborative activities involving several stakeholders such as academia, non-profit organizations, private companies and local municipalities.

By pulling resources such as expertise, land and labour together, the councils have generated various activities, such as creating biotopes - an area of well-set and maintained environmental conditions providing a living place for a specific assemblage of plants and animals, tackling invasive alien species which threaten endemic creatures, or planting endemic trees in closed plantations in mountainous areas. These activities are mainly conducted by academics and experts belonging to the councils and carried out by other council members and urban communities.

The Map of Biodiversity Potential provided by the prefectural government, which shows green spaces, waterfronts and therefore the connectivity of ecosystems, works as a tool for the councils to draw up their territorial strategies. By using this map, regional multiple stakeholders share the common goal of biodiversity conservation. The Aichi Prefecture advises and subsidizes activities such as the creation of biotopes to encourage the councils. Financial subsidies come from the prefecture's special greenery tax, which is levied 500 yen - approximately USD 4.5 - per capita per year.
The second component is the “Aichi Mitigation”. This is a procedure guided by the “guideline for conservation / restoration of nature”, which was published by the prefectural government in 2013. Its main goal is to mitigate the negative impact on nature by land development. The development of new industrial areas in the regions is subject to the approval of the prefectural government. Developers are obliged to consider the ecosystem network when planning, e.g. planting endemic trees around the developing area. To mitigate negative impacts of large industrial developments - more than 1 ha - the prefectural government imposes an obligation to preserve between 20 and 25 per cent of the total industrialized area for forest or endemic grassland species, which are expected to conserve the connectivity of the ecosystems.

Results and impact

By 2018, the implementation of the “Aichi Method” had led to the creation of 35 new biotopes, some of them entirely funded by private companies and without prefectural government aid. The creation of these biotopes has included the appearance of green space and ponds, and the expansion of the habitat of several species such as foxes.

Replicability and sustainability

The key to the replicability of this programme lies in the establishment of sub-regional councils and the leading role of academics and experts therein. Once established, these councils’ other stakeholders, such as local communities or private companies, are likely to be engaged in them. To keep up the momentum of ecosystem network formation, the engagement of communities and entities is important. For this, it is necessary to monitor and measure the progress of the formation of new ecosystem and expansion of the network by establishing indicators of fauna and flora and creating a GIS report platform.

This initiative gives evidence to the URL-GP of:

- **Locally grounded intervention**: The “Aichi Method” seeks to achieve CBD Aichi Biodiversity Targets. The method integrates the actions of different actors across the territory of the Aichi Prefecture. The Map of Biodiversity Potential is one of the tools used to coordinate the efforts at the local level to halt biodiversity loss and restore the ecological networks across the urban-rural continuum in the prefecture.
• **Integrated governance:** The “Aichi Method” is an horizontally integrated strategy across spatial scales in the Aichi Prefecture. It seeks to strengthen ecological networks across cities and its neighbouring region, including rural and peri-urban land. The strategy also includes a set of actions to bring different sectors around a common vision to protect biodiversity. These sectors include fisheries, forestry and agriculture. The Aichi Method also integrates different levels of decision making through the councils and integrates residents, companies, civil societies and municipal governments.

• **Financially inclusive:** combined with the greenery tax system, the “Aichi Method” generates monetary flow from urban to rural areas. Most of the revenue is gathered from urban area and then distributed across the urban-rural continuum.

• **Balanced partnership:** the “Aichi Method” aims to generate collaborations among academics, landowners, administrative bodies and other relevant stakeholders. Balanced partnership are the key to success.

• **Environmentally sensitive:** the “Aichi Method” is driven by the people and private companies who are seriously concerned about the environment and will undertake actions to conserve and restore biodiversity. Showcasing such activities increases sensitivity towards the environment.

This project relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Empower people and communities:** The “Aichi Method” aims to bridge the gap between different stakeholders and to encourage people to contribute to collaborative activities leading to their common benefit and healthy ecosystems by combining the resources they have.

- **Environmental impact and natural resource and land management:** The “Aichi Method” is an attempt to conserve or restore healthy and endemic ecosystems in the region.

- **The urban-rural continuum in the face of conflict and disaster:** The “Aichi Method” through ecosystem conservation and restoration might increase the resilience of the region against the impact of climate change, such as heavy rain.
FIGURE 8. Planting endemic trees in a finished plantation field by urban dwellers.

FIGURE 9. Ecosystem-network potential map (pond-network for damselflies).
2. SOUTH KOREA: SEOUL
Urban-Rural Coexistence Public Meal Service – Connecting city, rural communities, food, and people

ABOUT THE CASE

Author: Seulgi Son

Location: City of Seoul, South Korea

When: Ongoing since May 2017

Partners: Seoul Metropolitan Government (lead role) partners include 1) district-level local governments in Seoul (there are 25 districts in Seoul); 2) district-level public meal service centres in Seoul; 3) local governments in rural towns in partnership; 4) public meal service centres (or food hubs) in rural towns; and 5) grassroots food organizations.

Brief Description: Increasing reliance on the global corporate food system has threatened local food economies. South Korea, in particular, has wide gaps between urban and rural areas due to rapid urbanization since the 1960s that has led to shrinking farming towns. In an effort to re-localize food systems and revitalize rural economies, the Seoul Metropolitan Government launched a public food procurement programme to connect the city and rural towns by establishing direct, short, food supply chains. The one-by-one pairing system of urban districts and rural towns in the programme allows public institutions in Seoul to source healthy local food at more affordable prices and expands markets for small-size and family farms in rural areas.
Background and challenges

The expanding global corporate food system in recent decades has threatened local food economies and increased disparities in healthy food access. The Urban-Rural Coexistence Public Meal Service (UCPMS) in Seoul, the capital of South Korea, is an example of local food movements rising everywhere to tackle the dissatisfaction with corporate concentration and to regain ownership of the food system. The UCPMS is also a city-led effort to address spatial inequality between urban and rural areas, a consequence of intensive urbanization and industrialization in South Korea since the 1960s.

Solutions and implementation

One of the core projects of the Seoul Food Master Plan is the UCPMS. The Seoul Metropolitan Government prepared the UCPMS for two years before its onset in May 2017. This programme was recently recognized with the Milan Urban Food Policy Pact Award for Winning Practices for its efforts to build a regional food supply and distribution system.

The fundamental idea of the UCPMS is sourcing healthy local food from small-/mid-size and family farmers to supply urban facilities by establishing short, direct supply chains between 25 districts in Seoul and rural towns, which are paired one by one.

Multiple food scandals in the late 2000s motivated the Korean Government and the Seoul Metropolitan Government to launch food policy supporting and scaling up alternative local-level food initiatives. In June 2017, the Seoul Metropolitan Government announced the Seoul Food Master Plan 2030 with five goals: 1) healthy food; 2) food security; 3) urban-rural coexistence; 4) food safety; and 5) governance building. During two years of policy formulation, a task force consisting of civic experts and public hearings served to ensure public input into the programme.

Participating rural towns are chosen based on the capacity of food supply, local food infrastructure, and local governments. As of December 2019, 13 pairs of districts and rural towns had joined the programme.

To build governance across different levels of urban and rural governments, the Seoul Metropolitan Government and province-level governments, where the selected rural towns are situated, sign a Memorandum of Understanding (see Figure 1). The Seoul Metropolitan Government then provides overall policy guideline and subsidies to district-level governments for programme implementation, especially to equip local food procurement infrastructures such as district-level public meal centres and delivery trucks.

The operation of district-level public meal centres is outsourced to grassroots organizations with previous experience in agro-food distribution. Local food hubs in rural towns run by local governments or farmers’ cooperatives collect food from farmers and provide a daily transport service to the paired district-level public meal centres.

**Figure 10.** Governance structure of Urban-rural Coexistence Public Meal Programme.

The UCPMS has a set of criteria for food supplies to encourage the production and consumption of sustainably grown healthy food. For example, food should be all homegrown and non-genetically modified, while produce with organic certification is most preferred. Local food hubs in rural towns and district-level public meal centres in Seoul are responsible for a series of inspections of residual chemicals to secure food safety and quality. The district-level public meal centres play a role as distribution hubs, managing a supply and demand system between rural and urban actors and making the final deliveries to participating institutions.

This public food procurement programme is a policy effort to achieve zero hunger, one of the United Nations Sustainable Development Goals, by providing quality food for all, specifically for vulnerable populations.

Building on the *Environment-friendly Free School Lunch Programme* started in 2011, the UCPMS aims to expand public meal service to a wider array of institutions, including day care centres, welfare facilities, hospitals and government buildings, mostly public but also private in some cases. The estimated number of people served by the new public meal service is up to 20 per cent of the entire Seoul population.

This programme also commits to inclusive economic development across urban and rural areas. Participating urban facilities become anchor institutions creating broader and reliable markets for smallholders in rural towns, who particularly attempt to maintain or make a transition to sustainable agriculture.
According to a recent programme evaluation report, the number of people obtaining food from the public meal centres, as of June 2019, has increased more than five times since the start of the programme (7,844 → 44,328).

The consumption of sustainably grown agro-food has increased from 22 per cent (March 2016, before the programme), 67 per cent (December 2017, after the programme) to 85 per cent (June 2019). On the rural side, the final farm shares available through the UCPMS (69.8 – 95 per cent) are significantly higher than ones through the conventional wholesales market (32.6 - 61.5 per cent).

Participating rural towns are currently capable of meeting 73 per cent of food demands from institutions in Seoul, while the district-level public meal centres supplement the rest at alternative grassroots food markets.

Some obstacles identified thus far are as follows. First, there is a lack of rural towns prepared to participate in the public food procurement system. Necessary conditions to join the programme include institutional support from local governments and both hard and soft infrastructures – not only physical facilities but also invisible networks of actors and information. Second, there could be a conflict of interest with local business owners in Seoul since the programme incentivizes urban institutions to use the public meal centres by subsidizing part of the monthly meal plan budget. The Seoul Metropolitan Government has made efforts to minimize unintended impacts on small-scale businesses in the neighbourhood by excluding particular food items from the UCPMS. Lastly, large-scale facilities such as welfare facilities and hospitals tend to have more difficulty in introducing the programme because it favours high-volume purchasing and pre-processed food.

This public food procurement model is replicable in other global cities interested in inclusive economic development across urban and rural areas through re-localizing regional food flows.

Medium- and large-size cities would be well suited due to the volume of food they demand. The one-to-one pairing of urban districts and rural towns has contributed to building local food supply chains spatially and functionally connecting the two areas.

The district-level public meal centres’ role as intermediary organizations is crucial in fostering integrated governance and envisioning more comprehensive regional food centres in the future.

The UCPMS offers lessons on contributions that an integrated, place-based approach to local food systems innovations can make to revitalizing shrinking rural communities based on multifaceted aspects of agriculture.
Locally grounded interventions: As part of Seoul's efforts to localize the “Zero Hunger” agenda under the United Nations Sustainable Development Goals, the Urban-Rural Coexistence Public Meal Service commits to establishing sustainable local food systems that improve access to healthy food for urban residents, especially from disadvantaged groups, and the livelihoods of smallholders in rural areas.

Integrated governance: This intervention facilitates the building of multi-level governance since it horizontally connects the Seoul Metropolitan Government and participating rural local governments; vertically, it involves the city-level, district-level, county-level and province-level governments; and sectorally it integrates the public sector, civic organizations and academic institutions.

Functional and spatial systems-based approaches: The Urban-Rural Coexistence Public Meal Service builds on an understanding of the spatial and functional characteristics of urban and rural areas in food systems, especially those facing the intensive urbanization process. This programme attempts to (re)localize food systems and enhance interlinkage between two regions conceptually separate.

Balanced partnership: This policy engages a variety of stakeholders from urban consumers, rural producers, government officials, grassroots food activists, to academic researchers. Regular meetings on a monthly or quarterly basis open the floor for the stakeholders to discuss problems, negotiate ideas, and come up with future improvements.

Human Rights-Based: One of the major goals of this programme is to secure the right to food and health for all. Public institutions participating in the programme, such as day-care centres, senior welfare centres and facilities for the disabled, can provide people from vulnerable populations with daily meals by locally-sourced, healthy ingredients.

Do no harm and provide social protection: By ensuring food security for all, this programme contributes to reducing inequalities in food access caused by the conventional market-driven food system. Stable demands from anchor institutions in the city help to improve the livelihoods of small-sized and family farms, which ultimately encourages them to continue, or make a transition to, sustainable farming practices.

Understanding spatial and functional interlinkages between urban and rural areas in regional food systems is the key to the success of public food procurement. For this policy to be more sustainable, developing the long-term capacity of involved stakeholders and providing legislative support are necessary.

This initiative gives evidence to the URL-GP of:
• **Environmentally sensitive**: This policy contributes to decreasing food miles – environmental impacts of food transportation – by localizing and shortening food supply chains from rural producers to urban consumers via public meal centres playing a role as local food hubs. It also incentivizes farmers to reduce the use of chemicals by providing a guideline to meet for food safety.

• **Participatory engagement**: The Seoul Food Civic Council, an advisory committee consisting of various stakeholders in food systems from consumers, producers, distributors, grassroots activists, private sector actors, to academic researchers, provides a place where these actors can participate and raise their voice in the process of policy formulation and evaluation.

• **Data driven and evidence based**: The Seoul Metropolitan Government has conducted multiple evaluation studies to monitor and assess impacts that this programme generates on both urban consumers’ and rural farmers’ sides. Interim evaluations help the government to identify intended/unintended outcomes and prepare the next step.

This project relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

• **Governance, legislation and capacity development**: This programme, initially developed by the Seoul Metropolitan Government, has created horizontal and vertical collaborative governance across a number of local governments in both urban and rural areas to establish a public food procurement system. A supporting municipal ordinance in Seoul has been in effect since July 2017, along with a national-level plan to promote the development of place-based regional food plans.

• **Integrated planning across the urban-rural continuum**: Although the Urban-Rural Coexistence Public Meal Service is essentially an urban food policy, it addresses both urban and rural issues, recognizing the roles that the city can play in reshaping regional food systems. This policy also aligns with different local food plans in rural towns supported by province- and national-level government.

• **Empower people and communities**: This policy builds on the past experience and capacity of existing grassroots food organizations such as consumers’ and farmers’ cooperatives. Some of the grassroots organizations are in charge of operating district-level public meal centres. Organized farm visits of urban consumers from Seoul, as part of the programme, foster a sense of solidarity between urban and rural actors.
• **Territorial economic development and employment:** The Urban-Rural Coexistence Public Meal Service focuses on establishing direct channels of agro-food distribution between rural producers and urban consumers. This policy considers regional food supply chains as an important interlinkage between urban and rural areas to promote more inclusive economic development.

• **Coherent approaches to social service provision:** One in five Seoul citizens has at least one meal per day at public institutions, including schools, day care centres, welfare facilities, and government buildings. This public meal service programme allows those institutions to provide people with locally sourced healthy food following a standardized nutrition guideline, ensuring equitable access to food for all.

• **Integrated approaches for food security, nutrition, and public health:** This policy takes an integrated approach to enhancing access to sustainably-grown, healthy food for all through public meal service. Public institutions source fresh local food directly from rural farmers based on standardized meal plans recommended by the government. Most of the supplied food is sustainably grown with less or no use of agricultural chemicals.

• **Environmental impact and natural resource and land management:** This programme promotes a transition to sustainable agriculture conserving natural resources and biodiversity by subsidizing the consumption of sustainably-grown food at participating institutions and requiring farmers to supply products with no or less chemical use. Participating facilities purchasing more than 60 per cent of the food consumed monthly from the public meal centres are eligible for a subsidy for meal plans. Local governments in rural towns offer farmers technical support to help such transformation.
FIGURE 11. A farm visit to a rural town.

FIGURE 12. A storage place at a district-level public meal centre in Seoul; each section is designated for a participating institution. A local food hub in the paired rural town transports agro-food ordered one week earlier, on a daily basis.
3. COLOMBIA: CALI AND PALMIRA
Building knowledge basis to understand the food system, players and enabling environment with a city region perspective

ABOUT THE CASE

Author: Sara Rankin

Location: Cali and Palmira, Valle del Cauca, Colombia

When: 2015-2020

Partners: Alliance of Bioversity International and CIAT, Universidad del Valle, Universidad Nacional-Palmira, Universidad Autónoma, World Food Programme, RUAF Foundation, Palmira’s Secretariat of Municipal Agriculture, Cali’s Secretariat of Municipal Health.

Brief Description: By fostering and coordinating multi-stakeholder platforms such as the Academic Dialogue Platform on Food and Nutritional Safety, the International Centre for Tropical Agriculture (CIAT) aims to generate knowledge and articulate work on the city’s food system by bringing together key actors from the public sector, research groups and academia, NGOs and civil society. The main goal of this platform is to increase capacity and evidence for stakeholders and policymakers to formulate and implement sustainable food system policies with an urban-rural linkages lens. The dialogues initiated by the platform have scaled up to nourish food policies and local food plans among different levels of local governments, and has promoted key actors’ alliances and partnerships. The platform has been a tool for advocating for improved urban-rural food systems and governance, but also for improved policy decision-making among municipalities and across the urban-rural continuum.
Background and challenges

Santiago de Cali is Colombia's third largest city with over 2.4 million inhabitants. In 2010, a national survey reported that around 6 per cent of children under five years old were malnourished, 50-60 per cent of infant deaths were related to malnutrition, and 56 per cent of the adult population was reported to be overweight or obese. Consumer choice, low income and lack of basic nutrition knowledge might explain some of these nutrition-related problems.

Furthermore, Cali and surrounding municipalities, such as Palmira, have the highest rates of poverty and extreme poverty in Colombia, especially among Indigenous and Afro-Colombian communities. These communities are more likely to experience the highest levels of social exclusion, economic inequity and migration from rural to urban areas.

These problems are related to economic dynamics like the expansion of sugar cane production, which has changed the agricultural landscape from diverse subsistence farming to sugar cane monocultures.

Feeding urban populations in a sustainable way requires understanding how to improve city-region food systems, while simultaneously addressing human health and environmental-related risks and challenges. However, lack of information and evidence on the state of food systems, food safety, nutritional state, consumption dynamics, existing stakeholders, key actors and programmes are challenges that might put new actions and opportunities at risk. Also, the lack of political interest in food safety and nutrition coupled with lack of communication among actors and government sectors working on similar and complementing agendas makes it difficult to improve food systems.

Solutions and implementation

CIAT’s Sustainable Food System team, with the support of WLE Rural-Urban Linkages (RUL) Research Theme, has been addressing these interlinked challenges from a territorial perspective by assessing the performance of city-region food systems and identifying innovative ways to turn challenges into policies and strategies. Since 2015, CIAT and partners have been fostering a multi-stakeholder platform in Cali.

The platform, known as the Academic Dialogue Platform on Food and Nutritional Safety, has brought together key actors from the public sector, research groups and academia, NGOs, and civil society who meet once in a month under the coordination of CIAT. The main goal of the platform is to increase capacity and evidence for stakeholders and policymakers to formulate and implement sustainable food system policies with an urban-rural linkages lens.
It promotes the exchange of learned lessons and information on how to design, implement and monitor local and regional policies for place-based, sustainable and inclusive development. Awareness raising and knowledge exchange among partners to develop strategies, interventions and common research agendas are other aims of the platform.

The dialogues and discussions fostered by the platform have followed international frameworks such as the Milan Urban Food Policy Pact (MUFPP) and UN-Habitat’s Urban-Rural Linkages: Guiding Principles (URL-GP).

Results and impact

This joint effort has eased the identification of information gaps and the mapping of the regional food system by identifying new and relevant actors and initiatives. Through the platform, it has also been possible to assess, share and create intervention activities and research proposals. The platform has provided CIAT with valuable insights into Cali’s food systems structure and performance, revealing the interdependencies between Cali’s food system with its surrounding municipalities’ food systems, such as the municipality of Palmira. Thus, the platform has served to establish productive collaboration with key municipal entities of Cali and Palmira.

The platform has provided technical support throughout the whole process of formulation of the Food and Nutritional Security and Sovereignty (SSAN) policy of Cali. This policy aims to improve the quality of life, and to assure the right to food of Cali’s inhabitants while strengthening the city-region food system. In particular, the policy addresses communities where the right to food is not secure. In the process of constructing the SSAN policy, CIAT promoted the identification and subsequent observation of food system monitoring indicators proposed by the RUAF Foundation and the Milan Urban Food Policy Pact. Gender-disaggregated indicators were suggested to show differences associated with the dynamics and characteristics of women’s role in a food system context.

This policy proposal was validated by the Food and Nutritional Security Working group, initiated by Cali’s city hall and composed of representatives of all actors involved in the food value chain, including community associations, small farmers’ associations, private food companies, academics and NGOs. The SSAN policy was finally approved by Cali’s City Council in December 2019.
The dialogue fostered by the Food and Nutritional Security Working group and the Academic Dialogue Platform highlighted the need for a broader and more comprehensive picture of both Cali and Palmira’s food system, as the need for interaction between these two cities and their rural areas. In 2018, inspired by Cali’s process and with the support of CIAT, Palmira’s Secretary of Municipal Agriculture began to identify strategies to strengthen the activities developed by Palmira’s Committee on Food and Nutritional Security. The committee’s goal is to establish a workplan to identify priorities and to design and implement the Food and Nutritional Security Plan. This plan was approved by Palmira’s City Council in 2019 and constitutes the first step towards a future food policy. This process has also strengthened the links and knowledge exchange between the Governments of Cali and Palmira.

Replicability and sustainability

A food system that can be sustainable and resilient to global challenges, demands an articulating effort from those actors who can participate in a complementary way, contributing their different points of view in order to facilitate, more effectively, the interactions between different components of the system. Therefore, this kind of platform faced many challenges. Some of the most important are:

- Building a joint vision and roadmap to guide the efforts of its members.
- Delivering clear and accurate information to help stakeholders change their perception of food security being limited only to food production.
- Undertaking concrete actions aimed at social mobilization in favour of the food system (based on research findings).
- Designing a food safety observatory that monitors the progress on the food system and the participation of its most vulnerable actors.

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions**: the platform has used international frameworks such as the URL-GP and the MUFPP to guide policy dialogues on food systems, adopting them for the discussion in the local context. These frameworks have also been used to mainstream urban-rural linkages and integrated territorial development in local discussions.

- **Integrated governance**: the platforms have articulated activities, linking diverse partners from public and private sector, academia, civil society and NGOs to develop strategies, interventions and common research agendas. The platform has also worked towards strengthening the actions between municipal governments.
• **Human rights-based**: the Academic Dialogue Platform on Food and Nutritional Safety has been instrumental in promoting political discussions on the right to food and the formulation of policies that address communities where the right to food is not secure.

• **Data driven and evidence-based**: the platform has generated information and evidence on the state of Cali’s food system, including information on the nutritional state, consumption habits and key actors and stakeholders. The platform promoted the use of gender-disaggregated indicators for the formulation of Cali’s food policy to evidence the particular role of women in a food system context.

This project relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

• **Integrated approaches for food security, nutrition and public health**: the platform has relied on generating information and discussions on the Cali-region food system as a framework to strengthen urban and rural synergies. This discussion framework created by the platform has served to assess the quality and performance of the food system, evidencing the need for a territorial approach by policymakers that links food security and healthy diets to land, water and waste.

**FIGURE 13.** Tamales in a typical popular market in Cali.
FIGURE 14. Typical popular market in Cali.
4. ENGLAND: GLOUCESTERSHIRE

Dynamic procurement system (DPS)

ABOUT THE CASE

Author(s): Daniel Keech, Bryonny Goodwin-Hawkins and Carey Ives.

Location: The local authority of Gloucestershire County Council, England.

When: May 2017 – April 2021

Partners: University of Gloucestershire (Countryside and Community Research Institute); Gloucestershire County Council; Aberystwyth University; Monmouthshire County Council.

Brief Description: Public sector food procurement offers a valuable market for local suppliers and helps put healthy, local, seasonal food on public plates. But existing public procurement systems, which award high-volume commodity contracts to single suppliers, make it difficult for small producers/farmers to participate. Dynamic procurement systems (DPS) can help solve this challenge. DPS offers, in parallel with and complementary to extended supply chain arrangements, a means to give urban school cooks and pupils access to local, rural producers. DPS uses apps and complex logistics algorithms to track and collate fresh produce availability from accredited local suppliers. The algorithm can also synchronize pick-up and delivery to save time and reduce vehicle emissions. Gloucestershire’s Living Lab aims to follow a successful earlier pilot by integrating DPS into new school meals contracts, seeking to optimize rural-urban linkages.
Gloucestershire is a county (administrative area) in England with a population of around 630,000 inhabitants. While predominantly rural in character, there are two major settlements: the cathedral city of Gloucester and the former spa town of Cheltenham, which between them are home to over a third of the county’s inhabitants. Gloucester is approximately two hours from London by train. Gloucestershire lies between several major urban centres, including Bristol and Birmingham, the Welsh capital, Cardiff, and the university city of Oxford. Its attractive countryside distinguishes the county and more than half of the land area falls within one of three nationally-designated Areas of Outstanding Natural Beauty. Important economic sectors include high-tech engineering, cybersecurity, the public sector and agriculture.

Agriculture is an important rural land use; around 75 per cent of the county is farmed and directly supports 6,000 jobs. However, altogether, around 19,000 people work in the food and drink sector, representing about 7 per cent of local employment, and most of these people work in small companies employing fewer than 9 staff. Recent investment in rural broadband connection means that some areas of the countryside may enjoy better connectivity.

This case study relates to a specific rural-urban linkage, namely the provision of food ingredients from rural producers in Gloucestershire to school children located across the county who eat school meals. Gloucestershire County Council (hereafter: the council) arranges meal provision for around 190 primary schools serving lunch to up to 18,000 pupils every day. The provision of this service by the council is not compulsory, but is a political commitment designed to improve health and well-being by ensuring pupils enjoy a hot, nutritious and affordable meal during their school day. The council delegates the school lunch service, including employing school cooks and sourcing ingredients, to a commercial contractor. The school lunch service is well run and meets targets on local sourcing and sustainability as recognized by a silver standard accreditation under the Food For Life marque, which is a voluntary initiative run by a leading UK sustainability NGO.

However, under the existing school food procurement system, the sourcing contract mandates a pre-determined quantity of products in certain categories (such as dry goods, meat, frozen foods, etc.), which must be fulfilled regardless of whether they are in season or available locally. This need for consistency and reliability means that, even when using some local wholesale companies, there is a tendency to award high-volume commodity contracts to single suppliers, who then rely on national and global food supply chains to fulfil their contracts.
This process also excludes small and local producers from participating in the public procurement market and limits their access to the valuable procurement budget. Single-supplier contracting - and subsequently eating foods out of season and region - also distances urban consumers, especially children, from the food they eat. Fewer and fewer people know where and how food is grown and processed in their region, and they may have little understanding of food seasonality, which ultimately affects local rural livelihoods.

For two decades, a range of UK voluntary initiatives has tried to improve local rural-urban linkages through school food procurement markets, with the overall aim to put healthy, local, seasonal food on public plates.

**Solutions and implementation**

The University of Gloucestershire (Countryside and Community Research Institute) and Gloucestershire County Council have been piloting the Gloucestershire Living Lab, a “user-led” open innovation and experimentation intervention, to examine the possibilities to scale up a DPS by embedding it in Gloucestershire’s new school food catering contract, which is due to be issued in 2021. The Living Lab is part of a project called ROBUST, funded by the European Union’s Horizon 2020 programme, which seeks to optimize the governance of rural-urban functional synergies.

The three main barriers have been: (i) the capacity of small producers to meet bundled contract specifications; (ii) the capacity of contracted professionals to interpret competition law in relation to the multiple outcomes linked with school meals (nutrition, attainment, education) with constraints (budgets, preferences, food safety); (iii) the emergence of exceptional and/or time-limited voluntary initiatives to overcome an absence of coherent and universal policy-making. Dynamic procurement systems (DPS) can help solve these challenges.

The DPS system is essentially a combination of two operations: (i) an information technology (IT) logistics platform originally developed for the consumer home delivery market as an ordering system; and (ii) a consolidated distribution arrangement. DPS uses simple apps and complex logistics algorithms to track and collate fresh produce availability from accredited local suppliers. The algorithm can also combine pick-up and delivery to reduce road transport emissions. Embedding the DPS in school food procurement contracts would effectively integrate more local and smaller-scale producers in this substantial but highly specialized market, whose consumers are predominantly urban (e.g. Gloucester, Cheltenham, Tewkesbury, Stroud).
The Living Lab will present an evidence-based case that highlights the potential benefits of DPS to county councillors by October 2020, to inform decision-making in relation to the new contract wording. Evidence to inform this case will draw on an evaluation of a small DPS pilot (40 schools) in the city of Bath, where an IT logistics platform was developed by a local IT company.

Gloucestershire’s intervention would represent a significant scaling up of the DPS. In addition to collating produce availability and mapping pickup and delivery routes, the platform is able to process hundreds of data variables that relate to local producers’ own preferences for fulfilling orders. For example, if a chicken producer slaughters on Mondays and Wednesdays, the algorithm can schedule pick-ups on Tuesdays and Thursdays.

Results and impact

However, if successful, the intervention will connect Gloucestershire’s rural agricultural economy with its school meals service and school children - the county’s future citizens and leaders. The county’s five-year procurement contract will enable local, rural, small-scale producers to create and execute business plans that fit with their production circumstances, support rural livelihoods and potentially inform, or partner with, other regional initiatives.

This intervention is intended to benefit smaller producers, who are currently less aligned to the needs of the existing school food procurement arrangements, and the end consumers – in this case, the school pupils – who would get more fresh, seasonal food and would have the opportunity to learn more about where their food comes from locally.

Implementing a fully-operative DPS contract would use Gloucestershire County Council’s existing school meals budget and could even involve the same commercial contractor. While there will be associated set-up and transition adaptations, the required IT and delivery infrastructure already exists from the Bath pilot. This includes a complex IT ordering database whereby spot-price or agreed fixed-term prices can be entered and changed, orders are automatically consolidated, and deliveries are bundled to minimize transport distances and therefore traffic-related pollution.
Replicability and sustainability

The DPS represents an innovation in the way that rural-urban functional synergies are governed – food produced in the rural areas of the county nourishes school children, of which most are urban. The system can be transferred from one local authority to another. The learning from this Living Lab experiment will be transferred by Aberystwyth University to (and with) Monmouthshire County Council, which are also ROBUST partners and are working in parallel with Gloucestershire developments in their own Living Lab.

A final supportive development is the introduction of a cross-sectoral DPS pilot in south-west England led by the UK Government’s procurement agency, Crown Commercial Services (CCS). CCS will establish a DPS IT and delivery system, which can expand the sourcing of regionally produced food across all public services, including schools, hospitals, the military and prisons. Due to start in late 2020, Gloucestershire schools are likely to join this pilot, by trialling the sourcing of one or two food types (e.g. fresh meat and vegetables).

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions**: The DPS matches the real-time, seasonal supply capacity of local producers with demand, from on-line ordering preferences of school cooks.

- **Integrated governance**: The DPS arrangement relies on mutual understanding, detailed preparation and regulatory adherence between producers, local authority contract managers, DPS logistics platform managers, distributors and school cooks. By bringing together local producers and consumers, who are predominantly urban, DPS fosters integration across spatial scales in Gloucestershire.

- **Participatory engagement**: Pre-contract qualification support is provided to suppliers to make them market-ready by local authority contract officials, who must balance policy support for local producers with European Union competition regulations and very tight budgets for school meal provision. This support may assure the participation of local small producers in the school food procurement.

- **Data driven and evidenced based**: The Living Lab provides evidence to support the decision-making process regarding the new school food catering contract in a way that improves the territorial cohesion in Gloucestershire. Evidence to build a case for the Gloucestershire’s authorities comes from previous DPS pilots in the neighbouring city of Bath, interviews with multi-stakeholder networks and academic reviews.
This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Governance, legislation and capacity development:** The embedding of DPS within a legal governance arrangement (i.e. a contract) will ensure the inclusion of the prequalified producers for the duration of the contract (usually five years). Further governance strengthening includes embedding DPS in the emerging county food strategy and a regional cross-institutional pilot led by the central government.

- **Integrated planning across the urban-rural continuum:** DPS has emerged from innovation in the private retail sector. Its translocation to public markets has required close collaboration of urban and rural planning authorities, including producers, contract managers and legal teams, rural development NGOs, school cooks as well as pupils and their families (e.g. in menu development).

- **Infrastructure, technology and communication systems:** Development of working supply infrastructure, in the form of internet-based ordering platforms which consolidate and match supply and demand. The service works through a combination of creative but compliant interpretation of regulations and functioning supply chains.

- **Integrated approaches for food security, nutrition and public health:** While there is no guarantee that increasing local food supply will lead to health improvements among diners, DPS clearly requires a close mutual understanding of seasonality between school cooks and suppliers, and menu planning will need to reflect this. Short supply times help to reduce nutritional deterioration of foods, while optimization of distribution arrangements are likely to reduce road traffic and associated emissions.

**FIGURE 15.** Fruits, salad and bread being displayed in a school lunch food counter in Gloucestershire

**FIGURE 16.** Hot food counter display in a school in Gloucestershire
5. FRANCE: GRENOBLE-ALPES MÉTROPOLE

Local Food Partnership

ABOUT THE CASE

Authors: Gabriel Voisin-Fradin and Lilian Vargas.

Location: Grenoble / Southern Isère/ Auvergne-Rhône-Alpes / France

When: Phase I (Local Food and Agriculture Strategy): 2015-2018; Phase II (Conception of Local Food Partnership): 2019; Phase III (Implementation of Local Food Partnership): 2020-2022

Partners:

- **Local and regional authorities**: Grenoble-Alpes Métropole, Pays Voironnais, community, Le Grésivaudan community, Trièves community, Vercors Regional Park, Chartreuse Regional Park, Grenoble, Seyssins, Seyssinet-Pariset, Proveysieux / Quaix-en-Chartreuse Municipalities, national services and agencies: DDT38, ARS, DRAAF, Ademe, Belledonne natural space.

- **Sectoral/Professional Bodies**: Farmers unions and associations (Adabel, AAC, Sitadel, etc), cooperatives, pastoral and herders’ groups, water and sewage services, SAFER, CAUE, ADAbio, FAI, FDSEA, SUACI, chamber of agriculture, commerce, social structures, health stakeholders.

- **Civil society organizations**: Collective citizen, food autonomy collective, participation councils’ network, naturalist and environmental education associations, consumers associations.

- **Academia and Research**: Irstea, Pacte, Isara

**Brief description**: The local food partnership is an integrated project including strong, inclusive but flexible governance with all local authorities covering the sub-region around Grenoble, consumers and producers’ organizations, professionals’ bodies, among others. It consists in sharing data, resources, a common vision of the local food system, and a comprehension of the food project as a social policy. It has five main axes apart from governance: health and environment transition within food transition, protection of land and agricultural production tools; supporting local food production, consumers change of practices, agro- and rural tourism.
Background and challenges

The Local Food Partnership is an integrated and inclusive governance project, which involves local authorities, consumers and producers' organizations and professionals, among other actors (see Table 1). The Local Food Partnership encompasses the urban area of Grenoble and its surrounding territories, which are characterized by their great cultural diversity, mountains and valleys.

Solutions and implementation

This sub-region is organized around the city of Grenoble, whose population and expansive dynamics exerts significant pressure on its surrounding territories due to urban expansion – transformation of rural land in urban areas and pushing up prices for agricultural land. At the same time, Grenoble constitutes itself as the major place of consumption for local agricultural products in the region.

The process for the establishment of the partnership started with a collective strategy on local food and agriculture under the lead of Grenoble-Alpes Métropole. This process of elaborating this strategy involved seven partners, including local, sub-regional authorities and natural regional parks: the city of Grenoble, Grenoble Alpes Métropole, agglomeration community of Pays Voironnais (Communauté d’agglomération du Pays Voironnais), community of communes of Le Grésivaudan (communauté de communes du Grésivaudan), community of communes of Trièves (communauté de communes du Trièves), regional natural parks of Vercors and Chartreuse.

The challenges faced in the Grenoble sub-region are varied and include the need to adapt the current food and agricultural policy framework to climate change, deliver a healthy diet, and reduce land speculation on the surrounding municipalities - rural alpines areas - in Grenoble. Another major challenge was diversifying and strengthening the local food production, with the relocalization of the regional food system, aligning health, environmental issues and farming policies, and raising awareness and changing the practices of consumers and other stakeholders. To this end, the Local Food Partnership established six main axes to tackles these issues.
1) Governance: this dimension includes the creation of a Food Council. The Food Council is composed of local authorities, professionals, CSO citizens and researchers. It accompanies, connects and coordinates the several actors involved in the food system in the sub-region, sharing data and resources. The Food Council aims to establish a common vision for the local food system and a comprehension of the Local Food Partnership and different food projects as a social policy. This council is also in charge of sharing experiences through setting up a resource centre and fostering interterritorial cooperation. The council supports and aids the emergence of new local food projects and represents the sub-region partnership in national and international networks, e.g. Terres en Villes, France Urbaine, Eurocities, Milan Urban Food Policy Pact (MUFPP).

2) The environmental and health dimension in the food transition: energy-climate, living soils, biodiversity, waste, health. This dimension includes the following activities, which are encouraged by the Food Council by raising awareness campaigns and providing training. The indicators to monitor these activities are planned to be set through a participatory process, e.g. surveys, through 2020.

- Waste management and recycling actions, circular economy
- Fight against food waste (e.g. awareness campaigns in school canteens)
- Improved evaluation for local productions
- Climate forecast: better understand and anticipate the vulnerability of territories, improve autonomy and resilience
- Creation of a network of farms in experimentation for adaptation to climate change
- Accompaniment of shared gardens and urban agriculture
- Accompanying landscape and agro-ecological actions: agriculture favourable to biodiversity and health
- Restoration and renaturation of soils

3) The protection of land and tools for agricultural strategic products: preserve, mobilize, transmit includes accompaniment of planning procedures, land acquisition, preservation, mobilization, development, fight against land clearing, aids to transmissions and facilities, communal farms, implementation of compensatory agricultural measures (Grenoble-Alpes Métropole owns 130 ha to implement some of these measures).

4) Support for local key project and sectors from production to marketing: to produce, process, distribution.

- Aid to key project (diversification, conversion to organic farming, material acquisition, etc.). The aid delivered by financial support and project management
» Support for processing tools and the structuring of agricultural sectors
» Structuring and reinforcement of major equipment / logistics
» Assistance with the marketing of local products
» Development of quality local agriculture and information tools
» Valuation of existing know-how, “forgotten” cultivation methods

5) **Support the evolution of food practices towards healthy, responsible and supportive methods by focusing on the youngest and the most vulnerable people:**

» Training and raising awareness on the right to healthy, fairly produced and sustainable food,

» Consumer education, information and awareness of change of practice

» Access to product knowledge, pleasure of taste, food education for young people and future parents

» Promotion of solidarity for a local and quality food offer (health and nutrition issue)

» Promotion of local purchasing (local brands) and collective catering: support for the use of local products, organic products and vegetable proteins

» Formation of staff, significant reduction in the number of plastic food containers, awareness and training of restaurateurs with healthy food and the use of local products

» Mobilization of civil society (events, cultural demonstrations and festivities)

6) **The enhancement of know-how and products in the tourism offer:** to enhance, encourage, discover includes enhancement of agricultural heritage in connection with natural heritage and landscapes, valuation of farmers and of their products to tourists.

The Local Food Partnership finished its conception phase in 2019 and planned to being its implementation phase in 2020. As a result of the implementation of the partnership, natural and agricultural land is protected in planning documents, local facilities (slaughterhouse, vegetable processing plant) are financed, the short food supply chain will be organized, and the awareness by consumers and producers about sustainable food practices will be raised. Some changes are already observed as a result of the conception phase, such as the design of a food and agricultural strategy and the setup of a food and agricultural community.
Results and Impact

The Local Food Partnership will help people across the urban-rural continuum through better complementarity, mutual services, better integration of people within a common, planned space, including the metropolitan area and its hinterland. The result of the project would be better governance with greater impacts, and change of practice and political leadership.

The next steps to achieve the impact shall be designed with a participatory process, after the evaluation step.

A food observatory project, integrating data from each partner, including the provincial partnership land observatory, has been launched to follow-up and monitor.

Replicability and sustainability

The Local Food Partnership has integrated most of the URL-GP, first to guide decisions mainly on governance, planning, local food and environment protection. The URL-GP and Framework for Action will be promoted and shared with all stakeholders of the project during the participatory sessions and workshops to expand its application to other areas which are not covered.

This project will contribute to enhancing urban-rural linkages by strengthening functional complementarity between producers and consumers, tourists and host sites and facilities, comprehension of the other and shared governance.

This initiative gives evidence to the URL-GP of:

- **Integrated governance**: The project is a partnership integrating public institutions, socio-professional organizations (including economic stakeholders) and citizens (organized or not). This partnership has worked and has collectively produced a roadmap. Each year actions are prioritized and a lead partner is chosen by a steering committee to implement each action.

- **Balanced partnership**: The food council is composed of more than 150 representatives of citizen, professionals and institutionals, from the metropolitan city and surrounding territories. All of them have an equal right & vote, and all themes are addressed fairly (food, health, and environment).

- **Environmentally sensitive**: This partnership is strongly linked with the air climate energy masterplan in each territory, which are the implementing tools of the COP21 & Paris Agreement objectives. It also contributes to a food system more respectful of the environment by promoting the development of an organic agriculture and a more sustainable water management system.
• **Participatory engagement**: The Local Food Partnership, through the creation of numerous spaces and mechanisms, has fostered the political dialogue among different groups, including the most vulnerable, by enhancing their capacities. Within the activities of the partnership, the protection of local cultivation techniques has uplifted the role of local culture, recognizing the importance of social protection.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

• **Governance, legislation and capacity development**: The Local Food Partnership is a change of approach, transforming and integrating an urban area, where the consumption is concentrated, with producers, located in surrounding municipalities and rural areas. The partnership, constituted as a multi-actor mechanism, has fostered inter-municipal cooperation and integrated numerous stakeholders and a territory through its food system. Thus, the Local Food Partnership is a unique partnership using as unifying framework the scale on which the local food system operates as well as its functions, namely local food system: production, transformation and consumption.

• **Integrated planning across the urban-rural continuum**: The Local Food Partnership managed to integrate its action plan’s first objective into the land-use master plan of the metropolitan areas. This objective corresponds to the protection of agricultural and natural areas. As a result, the land use of more than 180 ha has been changed from urban to agricultural uses. Thus, the partnership was instrumental in mainstreaming environmentally sensitive approaches into local land-use plans.

• **Empower people and communities**: The Local Food Partnership committed to the inclusion of urban and rural actors, addressing power imbalances between actors by building the capacity of several actors and providing a framework to include rural actors. The partnership has also served as framework to enhance cooperation among communities and between large and small cities.

• **Integrated approaches for food security, nutrition and public health**: The Local Food Partnership strengthened the social and market relationship between food producers, food intermediaries and food consumers to strengthen urban and rural synergies. Local food production is leveraged while healthy diets are promoted, and issues of climate-change adaptation and mitigation are integrated. School canteens work to raise awareness of children and youth by providing nutrition education and at the same delivering them balanced and healthy meals four times a week.
FIGURE 17. North-east view of the Metropolis of Grenoble from the intercommunal “Maquis” Farm on the terraces of the Belledonne chain.

6. MOZAMBIQUE: VILANCULOS AND INHASSORO

MozTrabalha (Decent Work for Sustainable and Inclusive Economic Transformation in Mozambique)

ABOUT THE CASE

Authors: Edmundo Werna, Igor Felice, Antenor Pereira and Egidio Simbine.

Location: Districts of Vilanculos and Inhassoro, Province of Inhambane, Mozambique

When: Start 2017, finish 2021

Partner(s): International Labour Organization - ILO (project implementation); provincial government institutions like District Service for Economic Activities (SDAE) and Provincial Directorate for Agriculture; Aceagrarios (private company that provides technical assistance and extension services to rural producers); Association of hotel owners in Vilanculos and Inhassoro; the municipal government of Vilanculos. Association of Mozambican Municipalities - ANAMM (knowledge is being transferred to ANAMM for future replication). In the case of Inhassoro, since there is no municipality the collaboration has been established with the district authorities.

Brief Description: Vilanculos and Inhassoro are major tourist destinations in Mozambique. The catering sector of these destinations imports more than 80 per cent of food products, including vegetables. Vilanculos’ and Inhassoro’s hinterland has producers with the potential to supply a large share of the imported vegetables and livestock, thus creating income for cooperatives, farmers’ associations and middle-women, while providing fresh products for the tourism industry. The project MozTrabalha improves the quality and regularity of local food production and builds trust between producers and buyers within the territory. It promotes economic linkages between Vilanculos and Inhassoro and their rural hinterland generating multiplier effects in the local economy.
Since 2017, the International Labour Organization (ILO) – through the project MozTrabalha - has been using the Market Systems Development approach to enhance the agriculture/livestock-catering-tourist chain of Vilanculos and Inhassoro. The programme seeks to strengthen the management techniques and capacity of smallholder horticulture producers by learning and applying the Global Agricultural Practices (Global GAP).

This methodology is used to increase products quality and quantity and reduce produced waste. The programme is monitored according to ILO mechanisms coupled with an independent evaluation.

The Market Systems Development seeks to improve the aforementioned supply chain by establishing partnerships between rural and urban actors. It aims to establish partnerships between agro-dealers and service providers - local enterprises - to extend services such as technical assistance to producers and eventually develop "demonstration farms". These will play a key role in communicating better production techniques and new technologies such as greenhouses and irrigation, and increasing the usage of better-quality inputs amongst local farmers, such as seeds. This, in turn, will lead to a significant increase in the quantity and quality of produced vegetables and livestock as per market demand. The incentive for agro-dealers and service providers is that, if the project succeeds, they will have more and better clients (i.e. the producers).
The objectives of the project are aligned with the National Employment Policy (Pillar 2); the Five-Year Government Programme for 2015-2019, (Strategic Objective iii); the Implementation of SADC Revised RISDP 2015-2020; the Industrialization Strategy 2015-2063; African Union Malabo Submit (2011); Youth Decade Plan of Action 2009-2018 (Assembly/AU/Decl.1 (XVII); Sustainable Development Goals 1, 5 and 8, as well as the UNDAF: Outcome 2 and the 2018-2019 ILO Programme & Budget: Outcomes 1 and 5.

Results and impact

Strengthening the links between urban and rural areas by enhancing the agriculture / livestock – supply chain of Vilanculos and Inhassoro’s will generate a stable income for cooperatives, farmers associations and middle-women, while providing fresh products for the catering and tourism industry. Women’s needs are specifically addressed by the promotion of women’s economic empowerment in the project. This generation of income and employment in the territory has multiplier effects in the local economy. Other value-chains are benefited and local people and communities are economically empowered. Strengthening this value chain also has other spin-offs, such as food security and nutrition – i.e. an increase in the quality and quantity of food items in the territory.

Public health is also positively impacted since capacity building on food hygiene for producers is required. The initiative also considers the improvement of drinking water, sanitation and hygiene (WASH) in public markets. In terms of land management, the initiative will increase agricultural productivity. It also has a positive impact on the environment by decreasing the “food-miles” and by promoting green processes of production, e.g. techniques to reduce the quantity of used water; reduction in the use of pesticides and promotion of natural fertilizers; and use of local and renewable materials for the construction of facilities. It also promotes local culture by offering local food products and promoting local dishes. It strengthens the trust between local producers and buyers, and strengthens the governance structure of food supply chains in Vilanculos and Inhassoro.

The participation of several stakeholders and the focus on governance provide the socio-political foundation for this intervention. Governance relates to the process of interaction and decision-making among the actors involved in collective problems, in this case widespread poverty, limited growth of the local economy and underuse of local assets. The actors include the Inhambane provincial government institutions, such as the District Service for Economic Activities (SDAE), the municipal Government of Vilanculos, the district Government of Inhassoro, private companies that deal with extension services for rural producers, such as Aceagrario, smallholder producers and the association of hotel owners in Vilanculos and Inhassoro. In addition, knowledge is being transferred to the Association of Mozambican Municipalities (ANAMM) for future replication.
Replicability and sustainability

The territorial approach of this intervention makes it more feasible to bring together the various stakeholders and beneficiaries. It also brings economies of agglomeration and of scale due to territorial proximity, and is an opportunity to highlight that environmental protection and decent work are mutually beneficial. They come together under the concept of green jobs.

It is expected that once the buyers – especially the tourist sector – realize that they can buy local products of appropriate quality and delivered with reliability, the value chain will be sustainable.

The project can be replicated via advocacy and dissemination with national and international agencies. Specific modules in areas affected by the cyclones are also being considered.

This project can be used as a benchmark for areas where there is a precarious agricultural situation, where the local buyers import food due to the local conditions of the market or simply cope with less products, and where there is potential to improve local production.

This initiative gives evidence to the URL-GP of:

• **Locally grounded interventions**: the intervention enhances the urban-rural linkages in Vilanculos and Inhassoro by building the capacity of local livestock and horticulture smallholder producers to sell to the tourist and catering market. This strengthens the value chain - from production to consumption - within the same territory.

• **Integrated governance**: the project MozTrabalha promotes a labour-oriented governance by strengthening the participation of and dialogue between local actors, including workers, enterprises and local authorities. It seeks territorial integration by enhancing the linkages between towns and the rural hinterland. The institutionalization of these synergies is also sought by including a supra-municipal body, the Association of Mozambican Municipalities.

• **Human rights-based**: The project contributes to the promotion of labour rights by sensitizing entrepreneurs on their role and duties as employers. Many of the entrepreneurs in the project are horticulture and livestock producers whose knowledge of labour rights is limited. The project also seeks to promote labour rights in the realm of the tourist companies.

• **Environmentally sensitive**: by promoting the use of local products, diminishes the environmental impact of transport. The initiative also orient producers on the use of natural ingredients through training and on-the-job advice.
• **Participatory engagement:** The project ensures the meaningful participation of stakeholders in the design of the activities. Women’s needs has been specifically addressed by the promotion of women’s economic empowerment.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

• **Governance, legislation and capacity development:** The process of governance includes a range of actors from local and provincial authorities to the private sector (from small-scale agricultural producers to business providers and the hotel owners). The intervention invests heavily in the capacity development of local agricultural and livestock producers to supply the local market. Thus, the position of rural communities in the governance structure has been strengthened.

• **Empower people and communities:** It is expected that the initiative will significantly increase the income of horticulture and livestock producers, i.e. economic empowerment. This will lead to multiplier effects in the local economy, which will economically empower the local community at large.

• **Territorial economic development and employment:** This is the key sectorial thematic entry point of the project. As explained before, enterprises in the tourism sector and others buy food products mainly from abroad, despite a belt of local producers. The intervention improves the quality and regularity of production and builds trust between producers and buyers in the territory. It creates income and for the producers, expands their businesses and creates employment. It promotes economic linkages within the territory with multiplier effects in the local economy.
FIGURE 19. Demonstration of production techniques to some local producers, under a greenhouse in Vilanculos.

FIGURE 20. Women from a producers’ association in Inhassoro.
ABOUT THE CASE

Authors: Jackson Kago and Arthur Nganga.

Location: Lari Constituency, Kiambu County, Kenya

When: Ongoing since 1st of October 2014

Partner(s): 5,500 farmers, micro-finance institutions and animal feeds companies

Brief Description: The Uplands Premium Dairies is a private company registered in Kenya whose main activities are milk collection, processing and marketing of dairy and related products under flagship brand “Pascha”, which it distributes to other parts of Kenya. The milk company currently collects about 75,000 litres of milk from over 5,500 small-scale farmers in Lari Constituency and the surrounding areas, and it pays the farmers monthly. It produces long life milk with a life span of about six months resolving the issue of perishability that initially affected the small-scale farmers and facilitating distribution of milk to other parts of the country, including remote areas like Turkana and Lamu.
Background and challenges

Lari constituency, located 40 kms north of Nairobi, has historically been characterized by agriculture, cattle raising and subsistence farming as the main economic activities. Many farmers in the area rear dairy cows and had previously suffered losses due to challenges in marketing their produce. They relied on selling their milk to vendors who bought it at low prices and at times did not have capacity to buy the milk from the catchment area. This was occasioned by the collapse of small cooperatives as a result of mismanagement. The farmers also relied on daily or weekly payments affecting their cash flow. In addition, the farmers had challenges of low productivity and animal diseases.

Solutions and implementation

Uplands Premium Dairies started operating in the area in October 2014. It is a private limited company registered in Kenya whose main activities are milk collection, processing and marketing of dairy and related products under flagship brand “Pascha”, which it distributes to other parts of Kenya. The company has partnered with 5,500 small-scale farmers whose milk is delivered daily to the factory. The company engages the local farmers through an elaborate farm extension and training programme aimed at boosting their milk supply.

The programme has resulted in increased milk productivity for the member, whose average production per farmer has risen from 5 to 14 litres per day. The company aims to raise this to an average of 20 litres a day. The farmers not only benefit from the training and extension programmes, but also from linkages with micro-finance institutions who give them loans secured by the milk they have supplied. In addition, the company provides the farmers with animal feed and offers veterinary services on credit.

Results and impact

By boosting milk production, the company ensures there is a reliable supply of raw milk to the factory, while the farmers benefit from increased incomes and receiving a monthly payment. The company also engages small- and medium-scale distributors of the milk products from 22 depots located across the country. These range from traders operating with bicycles, motorbikes and vans whose derive their livelihood from the milk businesses. Lastly milk consumers are assured of high quality and safe products.

By investing in a rural set-up, the company has been able to strengthen the milk value chain by facilitating efficient spatial flows through processing, marketing and
distribution of the farmers’ milk. This has created a symbiotic relationship between the company and the farmers that promotes rural transformation and engagement in non-farm activities. Through the dairy sector, Uplands Premium Dairies has indirectly led to the rejuvenation of the adjacent urban centre, Kagwe, which is now growing into a small town, and the surrounding rural village centres, boosting non-farm activities in these centres and creating employment. For instance, micro-finance businesses have set up branches in the centre to provide access to finance for the local farmers. In addition, businesses servicing milk production, such as animal feeds shops and veterinary services, have also set up in the centre and there is a notable increase in car wash businesses since the lorries that are hired to transport milk to the factory have to be cleaned daily.

Furthermore, the company has been able to track the increased average milk production by the farmers and also the increase in uptake of loans from micro-finance institutions.

The URL-GP are important in ensuring that the project use territorial approaches to get the desired project outcome, which is rural transformation and community empowerment through enhancing efficient milk value chain. The guiding principles assist the company to actively monitor the impact of its activities in enhancing rural urbanization in the adjacent Kagwe centre and the growth of the surrounding village centres. Further, the URL-GP are relevant in guiding the implementation of the project towards a people-centred, participatory approach through the extension and training programmes.

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions**: The solutions that the intervention intends to resolve are locally grounded and intended to alleviate the immediate challenges the farmers faced in marketing their milk produce and increasing productivity. The company occupied the milk distribution void created by the collapse of small cooperative societies and provided the missing link between production and consumption, and in so doing prevented losses and wastage of milk produce.

- **Functional and spatial systems-based approaches**: The milk value chain is based on a system of inter-linkages between the company and the farmers on the one hand and the company and the consumers on the other. The milk collection system is through a network of routes and collection points that are spread across the whole rural catchment area, linking them to the factory. The processed milk is then distributed from the factory to depots and consequently to retailers, creating another network of inter-linkages that link the urban centre to other urban centres.

- **Financially inclusive**: The industrial investment through the introduction of an agricultural processing company in Kagwe has offered new opportunities there and for the surrounding community to engage in non-farm activities related to milk production.
Access to finance through monthly payments and loans on milk delivered to the company has also led to increased cash flow for the farmers, which was not the case when they sold directly to the milk vendors.

- **Balanced partnership**: The symbiotic partnership between the farmers and the private company creates a link between the urban and rural actors and fosters linkages. The company also incorporates other actors, such as suppliers of animal feeds, veterinary doctors and micro-finance institutions to build the capacity of the farmers to produce more milk, to the benefit of both the farmers and the company.

- **Participatory engagement**: The company reaches out to farmers in large groups to sensitize and train them on the latest methods and techniques for improving milk quality and quantity of productions. These are usually in the form of seminars at town halls and public venues. It is conducted in a way so as to encourage a discourse and exchange of ideas, suggestions, results and feedback. Knowledge diffusion through these training and extension programmes has created a notable increase in productivity from 5 to 14 litres per day.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Investment and finance for inclusive urban-rural development**: Access to finance was a challenge for the farmers before the company began operations. The farmers were previously given weekly or daily payments by the milk vendors which disrupted their cash flow. Monthly payments make it better for the farmers to plan their finances. In addition, they are able to use their earnings to boost their production through accessing animal feeds and veterinary services on credit. The linkages with micro-finance institutions that offer them loans has also been a major boost in creating access to finance. During the training programmes, these finance institutions are also invited to build farmers’ capacity to manage their finances.

- **Empower people and communities**: At the inception of the company, farmers faced the challenge of low productivity as a result of poor farming methods. The company realized that by training the farmers ways to boost milk production, they would not only ensure enough supply of milk to the factory, but also boost the returns to the farmers, creating a win-win situation. The training and extension programme has resulted in increased milk productivity; the number of farmers has risen from a low of 800 to the current 5,500 while milk volumes have grown from 4,000 to 75,000 litres.

- **Territorial economic development and employment**: Private investment in small towns boosts productivity and rural urbanization. This has been the case since the establishment of Uplands Premium Dairies and Foods Ltd in Kagwe. The milk processing industry has led to transformation of the dormant centre to one that is now
growing into a small town and responding to the production, processing and distribution of milk. The nearby village centres are also being rejuvenated. Milk production in Lari constituency is mainly through smallholder producers, and access to finance was a challenge for them. By linking the farmers to micro-finance corporations, the farmers are able to access loans to boost their businesses and cater for their dairy needs.

- **Integrated approaches for food security, nutrition and public health:** The project has ultimately led to the access of good quality and affordable milk to consumers, especially in informal settlements in Nairobi and semi-arid remote parts of the country like Turkana where there is malnutrition. The “Pascha” milk brand is one of the cheapest processed packet milks in Kenya. Long life milk with a life span of up to six months makes it possible to distribute the milk to these remote parts of the country.

**FIGURE 21.** Pascha Uplands Premium Dairies & Foods Ltd factory in Kagwe, urban centre.
8. KENYA: KALOBYEI

Strengthening the integration of hosts and refugees in Kalobeyei New Settlement

ABOUT THE CASE

Authors: Yuka Terada, Risper Talai and Ang Jia Cong

Location: Turkana County, Kenya

When: 2016-2030

Type of Intervention: Design, Spatial Plan, Programme

Partner(s): UN-Habitat, United Nations High Commissioner for Refugees (UNHCR), Turkana County Government, Government of Japan

Brief Description: Kenya is in a region of high conflict in Africa and has continuously received a large number of refugees. Kakuma camp in Turkana County – the north-western most county in Kenya - was established in 1992. It has experienced several challenges, which include over-dependence on humanitarian aid, increased conflicts between refugees and host communities, local development challenges, a need for integration, and the need to build the capacity of local government.

In the face of these challenges, the Kalobeyei New Settlement has been implemented as a pilot strategy, introducing a shift from a humanitarian approach to an area-based and sustainable approach. This has allowed refugees and host communities to live in a well-planned and functional human settlement with accessible and adequate social and physical infrastructure, diversity of economic activities, and reduced conflict among communities.
Background and challenges

The rise of global conflict has led to increased migration trends and refugee crises, posing several challenges to host countries. In recent years, Kenya has experienced an ever-increasing influx of refugees but taking a humanitarian approach to manage the situation, one characterized by a being an emergency response and only a temporary solution, is not sufficient. A shift to a more sustainable and long-term development approach is needed.

The north-western region of Kenya has had a continuous influx of refugees, mainly from neighbouring Sudan and Ethiopia. Turkana County established the Kakuma refugee camp in 1992 and by 2014 the camp had exceeded its capacity, leading to refugees, asylum-seekers and neighbouring host communities being under intensified social, environment and economic pressures to meet rising demands. To address these challenges, Turkana established the Kalobeyei New Settlement in 2015, 20 km from Kakuma town.

The Kalobeyei New Settlement project is part of the Kalobeyei Integrated Socio-Economic Development Programme (KISEDLP), which seeks to approach refugee assistance from the perspective of long-term development and sustainable interventions.

The KISEDLP uses an area-based approach and will benefit directly and indirectly the population in Turkana West, which approximately 186,000 refugees in Kalobeyei settlement and Kakuma camps, and a host population of 320,000 in Turkana West. This perspective is based on the implementation of an integration model between the hosts and refugees to empower both communities and achieve economic and social sustainable development.

In June 2015, the Turkana County Government allocated 1500 ha of land for the establishment of the Kalobeyei New Settlement. This was accompanied by an Advisory Development Plan, which encourages social inclusion and emphasises socio-economic growth whereby there are equitable benefits and opportunities for refugees and the host population. The long-term development approach adopted in the Kalobeyei New Settlement is aligned to national and county-level policies and legislation, such as the Kenya Vision 2030 and Kalobeyei Integrated Socio-Economic Development Programme (KISEDLP), and to international policies and strategic documents, such as the Agenda 2030 for Sustainable Development.

Solutions and implementation

The Advisory Development Plan was developed during the preparatory phase in 2016 via a multi-layered, collaborative and participatory process, which included surveys, community planning and design workshops, map reading exercises and focus group discussions in Kalobeyei and Kakuma.
Regular consultations were held with partner organizations, communities, households and stakeholders to develop a responsive intervention that will be geared towards finding durable solutions that address development and economic growth in urban and rural areas in the region.

The Advisory Development Plan has four phases and a time frame of 15 years. The preparatory phase of the plan (2016-2017) focused on engagement with partners, the establishment of the New Settlement and the provisions of basic services to the incoming refugee population. Phase one (2018-2022) involves aligning the development approach to the local policy/development framework to strengthen the humanitarian-development nexus and scale up innovation in delivery modalities such as cash-based interventions in permanent shelter construction. Phase two (2023-2027) consists of developing sustainable economic opportunities, and phase three (2028-2030) focuses on building solutions for social and economic infrastructure, thereby creating an economic hub in the county and (Kakuma -Kalobeyei) region.

An integrated planning approach was devised to establish the Kalobeyei Settlement so that both refugees and host populations could live together rather than in separate areas. An incremental approach of short-, medium- and long-term planning for infrastructure and social services was adopted. This was essential for the formulation of the Advisory Development Plan, which adapts to and applies the multi-agency, multi-sectoral approach "whole-of-government" to strengthen development, ensuring the intervention is informed by county and national institutions and regulatory frameworks.

Furthermore, the project has used a sound and inclusive approach that ensures social and economic growth. This has been done through the development of an economic hub in the region and by shifting from traditional perspectives of conceiving urban and rural areas as separate to considering spatial and sectoral interlinkages. The plan aims to enhance urban-rural linkages through infrastructural development and ensuring growth in sectors like agriculture, industry and services. The Advisory Development Plan also procured the meaningful participation of host and refugee communities by providing training, i.e. financial literacy training for youth and women ensure their full participation in the planning process was considered.

**Results and impact**

The implementation of the Kalobeyei New Settlement has created significant opportunities in the settlements, the neighbouring towns and in the region by contributing to rural-urban linkages in the aspects of social enterprise growth, communications, infrastructural development and economic growth. The increased role of the private sector and the government through the multi-agency collaboration has improved the socioeconomic inclusion of both refugee an host communities, while also ensuring sustainable growth.
Implementation of Guiding Principles and Framework for Action to advance integrated territorial development

The Kalobeyei project is a pioneering intervention using an area-based approach that considers both refugees and host communities’ needs, and ensures mutual growth and development. It is a model for managing an influx of refugees into a host country that can be adapted and replicated globally.

The successful implementation of this approach relies on the capacity of local governments, refugees and host communities; therefore, vocational training and capacity building measures are needed. Furthermore, similar interventions should consider the interlinkages between these planned settlements and neighbouring municipalities and towns, in which services can be delivered more efficiently and equitably.

Replicability and sustainability

Integrated governance and a balanced partnership strategy in the Kakuma-Kalobeyei region has ensured financial inclusivity and the transparency of the intervention, with the developers aligning themselves to the objectives of social protection, environmental sensitivity, integration and social inclusion; through this the project has also created an enabling environment with increased economic opportunities.

Participatory approaches with locally grounded interventions facilitated the innovation of durable solutions which created a greater social cohesion from the host county and its people and supported the success of the programme. The formulation of the Advisory Development Plan for the Kalobeyei Settlement, which is used as a reference for all stakeholders in the region, also ensured a collaborative approach to interventions and development.

To evaluate the performance of the set plans and interventions and to ensure transparency of information, monitoring processes such as socioeconomic research and lessons learnt, studies are conducted. Asset management strategies to manage capital investment for the various infrastructures have also been put in place to achieve the objectives set in each phase of the KISEDPI. Regular research has been done to monitor socioeconomic dynamics that have shown that the presence of refugees in the Kalobeyei region generally is perceived as having a positive impact in the Kakuma-Kalobeyei region. This is reflected in improved social and cultural interaction. Furthermore, refugees have boosted economic activities, leading to better outcomes and physical wellbeing of the host community. Risk mitigation has been established as well through risk analysis that is to be updated by reviewing external forces that could affect implementation.
This initiative gives evidence to the URL-GP of:

- **Locally grounded intervention**: The project is implemented in collaboration with Turkana County Government and adopts a new approach that promotes a shift from being a purely emergency response. It aligns itself to the existing planning and development policies and legislation at county, national and international level and build on past experiences in the region to ensure sustainable development for the local population.

- **Integrated governance**: A multi-stakeholder approach was adopted in the planning process, which entailed coordination and collaboration with the governments, humanitarian and development partners, private sector, host and the refugee communities to deliver services and create socio-economic opportunities for self-reliance in Kalobeyei.

- **Functional and system-based approaches**: The formulation of the Advisory Development Plan used as a reference for all stakeholders in the region ensures a collaborative approach to interventions and recognizes that intervention employed has impacts on the flow of resources, i.e. social, environmental and economic, and therefore it aims to promote growth, protect and preserve.

- **Financially inclusive**: The settlement aims to elevate the economic status of the Kalobeyei region to be economically autonomous and active by providing income and growth-related opportunities that will capitalize on already existing spatially and socioeconomically linked relationships with the neighbouring urban centres, e.g. Lokichoggio and Kakuma towns. Growth can be improved by empowering the community through small enterprise investment to start businesses which will lead to employment generation, such as the World Food Programme’s “Bamba Chakula” for small enterprises.

- **Balanced partnerships**: Implementation of the project adopted a multi-sectoral and multi-stakeholder initiative in which partners agreed to respond to the current situation in Turkana West using their comparative advantages to further strengthen an evidence-based planning and implementation process, hence strengthening the development cooperation amongst partners. This is done and guided by the Kalobeyei Integrated Social Economic Development Plan (KISED) that ensures synergy of formulation, implementation and monitoring. Involved partners included County Government of Turkana, United Nations agencies (the United Nations High Commissioner for Refugees, UN-Habitat, the World Food Programme), international NGOs, NGOs and community-based organizations.
• **Human right based:** The vision of the project is structured on the policy context that advocates for a just and cohesive society enjoying equitable social development in a clean and secure environment while making developments and human settlements inclusive, safe and sustainable. This targets the provision of affordable basic services, safeguarding cultural and natural heritages, and upholds human rights principles.

• **Do not harm and provide social protection:** The Kalobeyei approach emphasizes the principle of “leave no one behind” that promotes the inclusion of all people, refugees and hosts - in the national and county development processes and plans. It builds on several policies such as the Turkana Child Protection Strategy 2017-2021, the Refugee Act of 2006, and the recently gazetted Refugees Bill 2019 that aims to strengthen the capacity of national protection providers in the region.

• **Environmentally sensitive:** The project is mindful of the fact that the durable interventions should conform to integrating the landscape as a key spatial component with green and blue infrastructure by having a land-use framework with an environmental management strategy that advocates for ecological conservation and protection. For example, the Advisory Development Plan allocates land use for green networks/belts in the area to protect ecological corridors, development on flood risk areas are avoided and the project supports pastoralists to retain access to existing migration routes.

• **Participatory engagement:** Participatory processes were undertaken at all stages of planning and implementation through several activities; for example, a comprehensive baseline survey to map socio-economic statuses. Settlement development groups were created to assist with community engagement processes to sensitize and address targeted needs by developing strategies that empower community groups and build on the capacities of the host and refugees.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

• **Governance, legislation and capacity development:** A multi-stakeholder approach was adopted in the planning process which was informed by international, national and county policy, which ensured the harmonization of the Advisory Development Plan with such policy frameworks. Various activities were put in place to build capacity of the county government on urban and rural management strategies.

• **Integrated planning across the urban-rural continuum:** The new settlement is rooted in an integrated planning approach, which considers planning and design proposals alongside sound economic considerations and regulatory frameworks. This is being implemented by multi-agency, multi-government sectors and in which emphasis on civic participation is paramount.
• **Investments and finance for inclusive urban-rural development**: The second phase of the project embarked on strengthening both communities with increased socio-economic opportunities, and to build on skills and capabilities for driving the economy of the region. This approach aims to enable inclusive national service delivery systems, strengthen legal frameworks and policies and create a conducive environment where urban and rural areas can successfully function in this new environment, and thus enhance the overall economy.

• **Empower people and communities**: Formulation of the project was through a multi-layered collaborative and participatory process whereby regular consultation, workshops, focus group discussions and map reading exercises were conducted. While this facilitated a needs-responsive planning approach, it also ensured a sense of local ownership which contributed to the achieve of objectives due to few barriers to implementation.

• **Coherent approaches to social service provision**: The adopted approach emphasizes the equitable allocation and provision of services, and the development of a knowledgeable community empowered to be innovative, self-sustaining and resilient to emerging challenges. This is supported in the second phase of the project by the multi-sectoral engagement that aims to improve service delivery efficiency in the communities.

• **Environmental impact and natural resource and land management**: This is achieved through integrating an ecologically sensitive approach to development, where environmental management strategies can ensure the protection, management and regulation of environmental resources to attain potential investment and socio-economic benefits, e.g. water management strategy is implemented on linking the existing watersheds to a green infrastructure network which can mitigate flood risks.

9. UGANDA: KOBOKO - ARUA - NEBBI
Integrated and multi-scalar planning in West Nile Corridor

ABOUT THE CASE

Authors: Yuka Terada, Risper Talai and Ang Jia Cong

Location: West Nile, Uganda


Partner(s): UN-Habitat (lead role), Politecnico di Milano; Uganda Support to Municipal Infrastructure Development (USMID); Uganda Government and Ministries;

Brief Description: Arua is an urban centre in the West Nile Region of Uganda. It is an important base for humanitarian operations in the region. The Ugandan Government had plans to upgrade Arua to a ‘regional city’, enlarging its boundaries and enhancing its infrastructure, envisioning it as a potential logistic node. At the same time, increased conflicts related to land rights, limited access to basic infrastructure and services, and rapid urbanization threaten the existing socio-ecological assets in the region.

To address the complex transformation of this region, the programme needed to promote a synergetic development of Arua with neighbouring towns, such as Koboko and Nebbi. This demands the creation of a local government coordination strategy between municipalities, a development framework, tools and assessments on the region. An integrated urban and territorial approach by UN-Habitat was adopted to explore how regional decision-making influences the decision-making process at city and neighbourhood level. The intervention involved a multi-scalar data collection and analysis process, and is inclusive in terms of approaches and synergies, and includes different people of concern, host and refugees alike. UN-Habitat worked closely with Politecnico di Milano throughout the data collection and scoping processes, and in coordination with USMID and Ugandan government and ministries throughout the workshop and discussions.
Background and challenges

The urban population in Uganda is rapidly increasing. Influx of refugees to urban areas puts pressure on resources and basic and social services, presenting a possible source of conflict between migrant and host communities. This coupled with rapid urbanization makes it urgent for policy makers to ensure that rapid urbanization is well managed and can contribute to sustainable and inclusive growth in Uganda’s municipalities, addressing unplanned urban growth, and social, economic and environmental inequalities.

Similarly, investment in Uganda is largely positioned in the capital of Kampala, which results in lack of investment in other municipalities. Integrated territorial planning and implementation can serve to reduce pressures in the metropolitan area of Kampala. The frameworks - Uganda Vision 2040, National Urban Policy/Physical Planning Act 2010/National Development Plan 2015/16 - 2019/20 have put their emphasis on the need to strengthen strategic cities nationally, upgrading them to “regional cities”, such as Arua in the West Nile Region.

Adequate and integrated governance remains crucial to address these challenges and to tap into the potential multiplying effects of potential development and population growth on economic and social patterns in the West Nile Region. The Integrated and Multi-Scalar Planning Programme aims to promote a network of cities, focusing on the West Nile Region.

To develop this network, it is aimed at developing the corridor, combining the three municipalities – Koboko, Arua and Nebbi, with Arua being the most important node along the corridor. Thus, the programme is designed to unlock development synergies following improved dialogue amongst local municipality governments at different planning scales, resulting from greater coordinated investment in people and places which aims to achieve more inclusive, resilient and liveable cities and towns. To this end, it promotes integrated urban and territorial planning by offering support to local municipal authorities in planned urbanization and settlements, urban governance and capacity building.

Promoting an integrated and multi-scalar planning approach for decision-making across planning scales and across administrative boundaries will also support developing strategies for inclusion of migrants and refugees into urban areas. The sustainable integration of migrant and refugees into the host communities and across the territory was identified as one of the key priorities for the stabilization and growing economic and social potential of the region, and was supported in the National Development Plan of Uganda, by the National Planning Authority (NPA).

The programme builds on the understanding that urbanization and rural transformation can no longer be addressed separately.
Small and intermediate cities, towns, villages and surrounding rural areas create a comprehensive and interlinked continuum, and their development processes must be mutually reinforcing. Therefore, the programme promotes an inter-scalar approach for data scoping and understanding at three different scales, including a component on capacity building of local municipality authorities.

First, on a territorial scale, the programme sought to recognize existing governance structures, infrastructures and services. Second, on a local scale, the programme sought to map existing and potential public space areas. And third, on an economic scale, the programme sought to strength municipal financing and local economic development in the region.

The programme contributes to the delineation of urban boundaries, protects environmentally sensitive areas, and guides sound development around urban fringes by creating fair and sustainable neighbourhoods and preventing urban sprawl. The programme promotes collaboration between urban and rural economies for greater integration and growth.

The intervention echoes the NPA perspective on sustainable development that ensures that the capacity for visionary and long-term planning with balanced and national development is achieved. This is being done through integrating economic, social and political dimensions of development with spatial environmental considerations.

Solutions and implementation

The programme has two phases; the first phase ended in 2018 and the second phase is soon finishing.

The first phase of the programme had two components. The first had a training needs assessment that identified gaps for the establishment of spatial planning units and mechanisms across the municipality and regional boundaries surrounding Nebbi, Arua and Koboko; and focused on building capacity on urban legislation, urban planning and design, and municipal finance. The status of the local urban boards and the technical and financial management capabilities of the municipalities was captured through a data scoping process and assessment.

The second component focused on providing urban management standards and guidelines by UN-Habitat to support the local planning and development institutions in the region. The programme included discussions on participatory planning processes, governance structures for inclusion, a review of related policies, and inter-city exchanges. Specific discussions on the integration of refugees and internally displaced people in physical planning schemes were also held.

Overall, the programme guided the integration of the urban municipalities through an inclusive participatory process with all the stakeholders in the West Nile
corridor through data scoping, mapping and providing recommendations using a multi-stakeholder process and an integrated territorial approach, including public space and local economic management.

The ongoing second phase of the programme builds on the data collection and capacity development from the first phase and looks more specifically into Arua and its neighbouring refugee settlements (such as in Adjumani), generating a socio-economic survey report that better reflects refugee and migrant movement in the region and its impact in both urban and peri-urban settlements. This is essential to better reflect refugee information at the local level to ensure adequate distribution of resources and infrastructure in these settlements.

**Results and impact**

The outcome of the first phase of the programme includes data, maps and recommendations at different planning scales, including the regional level and the city and community levels. The project advises that forming a joint strategy through the mapping of economic potentials and exploring urban-rural synergies for the economic growth of the region is more strategic than competing amongst municipalities. Mapping of assets on a territorial scale is required in future scenarios and with considerations for land management. This phase also included a public space and local economic development assessment conducted by UN-Habitat to highlight emerging and growing economies and livelihoods strategies in each municipality and across the region.

The programme resulted in ideation of developing a potential metropolitan area of the West Nile Region with the aim of first adopting a territorial approach lens, which was shown through the assessment process to be fundamental for future development of the region. The idea of a transformed and prosperous urban metropolitan in the West Nile, which was first proposed at the start of the programme, was further strengthened and supported after the data assessment and the respective discussions by municipalities. The municipalities have agreed to collectively foster sustainable and coordinated socioeconomic development in the urban setting of Koboko-Arua-Nebbi – to be called the “KAN Corridor”. This entails a flow of resources between municipalities and between the region at the national level. At different planning scales, it was also identified that the main economic drivers that could support development of the corridor were trade, agriculture and tourism. There is also a proposal to upgrade existing open public spaces and markets in the three municipalities to create a network of interconnected areas throughout the region.

As the local community and refugees are residents of the region, it was very important to include them in the planning and priority space selection of public spaces. This empowered them to understand the importance of improved social cohesion, through the creation of greater ownership, which can result in an increase in land value and investment through identification of priority projects.
Replicability and sustainability

The programme and its approaches can be replicated in other projects that aim to include migrant communities into urban structures, while also ensuring sustainable urban development. It is also a good model to show how coordination between multi-stakeholders can be achieved in a project in different administrative boundaries, and across urban-rural linkages by adopting a territorial approach that considers economic growth and investment in the region.

This initiative gives evidence to the URL-GP of:

• **Locally Grounded intervention**: The project supports Uganda’s authority to advance in the achievement of the Sustainable Development Goals (SDGs) and the implementation of the New Urban Agenda. At the national level, the intervention is informed by the local institutional framework in the country, such as the Uganda Vision 2040, the Global Compact for orderly and regular migration, the Global Compact for Refugees and the 2nd National Development Plan which depicts the political and economic importance of the West Nile Region. The Albertine Graben PDP indicates Arua to be a regional city, a hub for expanded trade and agriculture.

• **Integrated governance**: The urban and territorial approach adopted emphasized the need for effective communication at the different scales of planning, with extended collaboration with sub counties to link the rural and urban areas in a system.

• **Functional and spatial systems-based approaches**: This approach makes use of systems-based approaches to promote inclusive urban and rural policy and planning, such as “system of cities”. The system supports the creation of functional spatial interconnections between municipalities in Uganda, and, in the case of the programme, where Arua can act as a nodal point along the West Nile Corridor. This entails the flow of resources and consideration of the different scales of urban and rural settlements in towns, among others.

• **Balanced partnership**: Uganda’s institutional framework is built on cooperation between the national government and local authorities. The project was a collaboration that advocated for a bottom up approach involving all stakeholders whereby the partnership involved working with local organizations and institutions in sharing evidence and research. Examples are Humanitarian OpenStreetMap (HOT), UNHCR, Reach and Makerere University.

• **Participatory engagement**: The intervention advocates for a bottom-up approach to decision making whereby discussions held with the national and local authorities and representatives resulted in a collective agreement towards cooperation amongst
small- and medium-sized towns. This will enhance inclusive growth, with balanced urban and rural development, rather than competing and the creation of multiple divided patterns of growth. In addition, throughout the workshop and assessment validation, UN-Habitat and municipal authorities ensured that vulnerable groups in municipalities were represented, including youth, women and the elderly, to name a few.

• **Data driven and evidence based:** The programme adopted systems that study correlation between factors affecting sustainable growth and territorial linkages, including in-depth research on urban economy and municipal finance, public space assessments and territorial analysis with fact finding missions to comprehensively profile the region.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

• **Governance, legislation and capacity building:** Applying integrated planning approaches is crucial for decision making at urban and city level, promoting dialogue across planning scales, as well as across administrative boundaries, including different sectors of local government and planning, and capacity development.

• **Integrated planning across the urban-rural continuum:** The project promotes planning geared towards the advancement of cross-sectoral planning at both national and local levels through support towards and delegation of planning powers to the grassroots level, and by building capacity and creating synergies by promoting stronger networks between urban and rural areas.

• **Investment finance for inclusive planning:** The West Nile project laid a foundation with a strong territorial component that fosters inter-scalar planning, as well as governance structures which included municipal finance considerations.

• **Empower people and communities:** The project supports inclusivity, participatory planning and collaboration to create linkages between urban and rural areas. Research also shows that where communities are involved in developing a spatial plan, the plan usually receives a wide range of ownership and is better suited to solve their local challenges.

• **Knowledge and data management:** Knowledge and data was gathered as part of the project on the dynamic spatial flow of people in the West Nile region, its products, services, resources and other socioeconomic information.

• **Coherent approaches to social service provision:** As part of the recommendations from the project, basic infrastructural service provision will greatly benefit from planning via an integrated territorial approach. Water and waste management systems can be better managed by combining policy action with physical plans that clearly distribute duties and benefits across regions, and amongst different stakeholders.
- **Integrated approaches for food security, nutrition and public health**: The projects recommend mainstreaming health and well-being by building coherent and linked urban-rural approaches to food, water, energy and health systems, with specific attention given to the multiple benefits of the circular economy made possible as part of the urban-rural nexus, especially when coupled with capacity development and inclusion.

- **Environmental impact and natural resource and land management**: Conduct strategic environmental assessments to reduce environmental risks from severe flooding, drought, storms, sustainable use of natural resources, protect biodiversity, promote ecosystem-based production systems and build resilient landscapes.

**FIGURE 24.** Discussions amongst municipalities on developing strategies.

**FIGURE 25.** Inter-scalar capacity Development Workshops with municipalities.
ABOUT THE CASE

**Authors:** Assonsi Soma and Lassané Yameogo

**Location:** Ouagadougou/Region of Centre/Burkina Faso

**When:** Project started on 2010 End date: 2025

**Partner(s):** Ministry of Urban Planning and Housing, town hall of the urban commune of Ouagadougou, town halls of the seven rural communes integrated into the greater Ouaga Region.

**Brief Description:** Rapid population growth and uneven concentration of socio-economic activities across the territory are two major challenges faced by Greater Ouaga in Burkina Faso. The Greater Ouaga Master Plan (SDAGO) aims to tackle these issues by considering the land use, encouraging a rational occupation of land and reconciling rural and urban areas. So, population accessibility to services is increased and the functional connection of the city with surrounding municipalities is enhanced.
The city of Ouagadougou is the capital and largest city of Burkina Faso. Together, Ouagadougou and the surrounding rural communes of the Kadiogo and Oubritenga province make up the greater Ouaga Region, which extends over approx. 3,304 km². In the last 25 years, the region has experienced rapid population growth; in 1996, the population was estimated to be 929,986 and by 2006 this had risen to 1,754,706 inhabitants. In 2018, there were nearly 4 million inhabitants and it is expected there will be 5 million by 2025.

Rapid population growth poses several challenges, particularly in the field of land management and infrastructure. Therefore, a strategic planning study began in 1997 under the name of the Greater Ouaga Master Plan (SDAGO), which considered the city of Ouagadougou and the surrounding rural communes as the planning area. The Council of Ministers approved SDAGO through decree in 1999, legally constituting the Grand Ouaga as a territorial planning space. The SDAGO was planned to be implemented in a 20-year period with a five-year action plan until 2025.

Background and challenges

Solutions and implementation

The formulation of SDAGO involved the city of Ouagadougou, the rural communes of Greater Ouaga, and several national ministries such as the Ministry of Territorial Administration and Decentralization, the Ministry of Economy and Finance, the Ministry of Agriculture, the Ministry of the Environment, and the Ministry of Urban Planning and Housing, which led the process. An inter-ministerial project steering committee was set to define the role and intervention of each minister and authority according to the nature of the infrastructure to be built or the actions to be carried out. The committee was also in charge of reviewing the existing documentation of the Greater Ouaga Region as well as the policy frameworks and development strategies in the country. The inter-ministerial committee was then extended to include customary and religious authorities and civil society.

The development of the SADGO has been in a context marked by a decentralization process. Therefore, planning powers were delegated to inter-ministerial committees, municipalities of the Greater Ouaga Region, religious and customary authorities, and civil society groups.

In 2010, the extended committee - ministries, municipalities, customary authorities and civil society groups - issued a first report with guidelines for the implementation of the project. This report was adopted by the Council of Ministers, allowing the implementation of SDAGO to begin in 2014 with the allocation of land for infrastructure projects and industrial zones. However, difficulties in mobilizing financial resources and land issues related to the anarchic occupation of the Greater Ouaga by people, and especially private real estate
operators, led to a revision of the first report and its guidelines to take these issues into account. Thus, a complementary and updated data study was done to revise spatial planning issues such as the zoning of the Greater Ouaga.

The extended committee published this study as an interim report in December 2018, updating the guidelines for the implementation of SDAGO, and affected communities were consulted iteratively to take their concerns into account and through the establishment of focus-groups and forums, which also helped to raise awareness among communities on the plan. The National Commission for Planning and Sustainable Development of the Territory validated the interim report in December 2018 which gave the green light to the implementation of SDAGO.

The SDAGO aims to control the occupation of the Greater Ouaga Region, proposing development options in line with the concerns of stakeholders and the vocation of the land.

**Results and impact**

SDAGO implementation has implied significant changes in the planning of investment projects because all sectoral interventions must refer to the land-use framework of the plan. Land uses were established in line with the concerns of stakeholders and the vocation of the land, including the development of agro-sylvo-pastoral and industrial production activities and their better distribution across the territory. Therefore, villages and the hinterland were integrated into the dynamics of the city of Ouagadougou.

The master plan also seeks to integrate the central villages and the hinterland into the dynamics of the city of Ouagadougou and provide the Greater Ouaga area with basic infrastructure and social services, improving the living conditions of the population. To meet these objective, SDAGO has five main orientations:

(i) control and management of the land occupation patterns in the Greater Ouaga Region; (ii) development of infrastructure; (iii) development of agro-sylvo-pastoral activities and industrial production, aiming to better distribute these economic activities throughout the region; (iv) control and preserve natural resources; and (v) improve the access to social services and decent housing. The implementation of these relies on the control and management of the land occupation in Greater Ouaga to overcome the identified challenges.

The SDAGO focused largely on promoting large infrastructure development, allocating land for the construction of infrastructure such as the Donsin Airport, the Ouaga II University, the Ouagadougou bypass road, the solar power plant in the rural commune of Komsilga, the Gonsè science park in the commune of Koubri, and the economic hub in the commune of Tanghin-Dassouri. The plan seeks to ensure the connection between the city and the countryside by encouraging the development of infrastructure and communication routes.
The plan also envisioned the control and preservation of natural resources. For this, 2,675 hectares were allocated for the rehabilitation of the former Ouagadougou green belt, 3,077 for the creation of urban parks, and 16,520 hectares for the creation and/or management of communal forests directly by communal authorities. Similarly, 1,620,000 plants are planned to be planted, protected and restored on stream banks.

The financial estimate for the implementation of the SDAGO is approximately USD 2.27 billion. The sources for these resources are the state and beneficiary local authorities, the urban development fund, the support of technical and financial partners, public-private partnerships and individuals.

The implementation of the SDAGO has also encouraged the development of communication routes, allowing people to move between the city of Ouagadougou and the countryside. It is expected that the SDAGO will improve the occupation and management of land, particularly across the rural-urban continuum, encouraging socio-economic activities rural areas according to the suitability of the land, such as for urban agriculture, industrial activities or breeding. It is expected that these activities will supply Ouagadougou with consumer products and create jobs for rural youth, which will help to slow the exodus to Ouagadougou.

The relocation and compensation of the people affected by the project was a prerequisite depending on the sites and infrastructures to be built. For the construction of Donsin Airport on 4,400 hectares in the municipality of Loumbila in the north of Ouagadougou, 962 affected households have been resettled in 2,622 decent housing units built on nine developed sites. For the construction of the Ouaga II University on 1,800 hectares, 578 farmers have been compensated and resettled on a 364-hectare site. For the construction of the Ouagadougou bypass road, 1,133 affected people are waiting for compensation. Owners and operators of agricultural land have been identified and compensated. Also, cultural properties have been inventoried for conservation.

Replicability and sustainability

The mobilization of land for public and private investment has been a major challenge in the implementation of the project. Since the land belongs to rural municipalities and private owners, expropriation with compensation must be carried out. This has entailed costs that must be considered; however compensation was not included directly in the SDAGO budget, but was rather in the implementation budget of the various projects contained in the SDAGO, such as Donsin Airport.

The extended inter-ministerial committee under the supervision of the Ministry of Urban Planning and Housing has monitored and evaluated the implementation of SDAGO. To do this, several tools were used as an atlas - illustrated reports - a geo-informatic observatory, field visits and the production of periodic reports were used. The plan has the potential to be replicated between Ouagadougou and each of the communes of Greater Ouaga.
The aim is to set up micro-projects for the benefit of the population and to mobilize resources for their financing. The lessons to be learned for such an exercise are how to ensure the effective mobilization of human, financial and land resources.

**This initiative gives evidence to the URL-GP of:**

- **Integrated governance**: The most important principle of the project is integrated governance, since the Greater Ouaga Region comprises several jurisdictions, i.e. the city of Ouagadougou and rural municipalities. Furthermore, the formulation of SDAGO comprised national and municipal levels of decision-making authorities as well as the involvement of several stakeholders and sectors. Above all, the formulation and implementation of SDAGO implies an agreement on the issues of territorial governance, institutional anchoring and defining the role of each actor.

- **Functional and spatial systems-based approaches**: This was a key and operational principle considered during the formulation of the plan, which consisted of setting up activities and infrastructures considering the vocation and suitability of land. In addition, this approach focuses on taking into account the functional relationship between urban, peri-urban and rural areas in terms of accessibility and complementarity. Allocating land for economic development and job creation has involved taking into account other systems such as the provision of social services, the development of infrastructure systems, and the management of natural resources. This approach has reduced conflicts and disasters related to the exploitation of resources and space.

- **Environmentally sensitive**: SDAGO considered the creation of a green belt and allocated several hectares for the creation of urban parks. Similarly, the plan contemplates the protection of plant species along water streams and allocated 16,520 ha for the creation and/or management of communal forests. Envisioning these areas within the plan will help to ensure ecosystem services and protect biodiversity in the Greater Ouaga Region.

**This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:**

- **Governance, legislation and capacity development**: The formulation of SDAGO entailed the formation of an inter-ministerial committee to review the institutional mandates and policies in which the SDAGO was going to be formulated. Similarly, other territorial governance arrangements were necessary to ensure inter-municipal cooperation between the city of Ouagadougou and rural municipalities. These governance arrangements were necessary to clearly define the role of each government for implementing the plan.
• **Integrated planning across the urban-rural continuum**: The formulation of SDAGO considered sectoral requirements and imbalances at a regional level. In doing so, the extended inter-ministerial committee was instrumental in advancing cross-sectoral planning. By specifically emphasizing better distribution of agro-sylvo-pastoral activities across the Greater Ouaga Region, the plan recognized the special needs of rural settlers. In addition, the plan identified common needs across the urban-rural continuum, proposing customized land uses. Thus, the plan encouraged the construction of cities in the peri-urban area, linked the urban core to peri-urban and rural areas urban through a structured road network and public transport, and proposed economic and industrial units, agricultural, university and technopole poles in the rural area of Greater Ouaga.

• **Territorial economic development and employment**: The SDAGO unlocks investment opportunities by allocating land uses for infrastructural and economic development across the urban-rural continuum. The plan seeks to encourage an integrated development in the Greater Ouaga Region balancing the economic activities across the territory. The SDAGO has also harnessed the potential of rural cluster by establishing hubs for agricultural units, university and technopole poles.

**FIGURE 26.** Ouaga2 University in the village of Gonsè.

**FIGURE 27.** Zagtouli photovoltaic solar power plant.
11. IRAK: QALAT SALEH
Piloting Urban Planning Models for Urban Expansion

ABOUT THE CASE

Author: Anna Soave

Location: Qalat Saleh city in Qalat Saleh District, Maysan Governorate, Iraq


Partner(s): UN-Habitat Iraq Programme, United Nations Development Programme (UNDP) Iraq. Iraq Ministry of Planning (MOP) and Maysan Directorate of Planning

Brief Description: The study “Addressing Expansion Needs in the Town of Qalat Saleh, Maysan Governorate” offers insights on how current land policies and planning approaches have led to untenable patterns of growth in Iraq, low-density urban sprawl, unserviced, leapfrog developments and increased spatial inequalities between rural and urban areas that have driven people to migrate to cities in search for jobs and better services. The study suggests a set of planning tools for harnessing development opportunities, including infill, the phased allocation of serviced land in approved urban extension areas; integration of informal settlements; and improved connectivity between public spaces, so that Qalat Saleh can reach its full potential as a functional node between Basra, Amarah and its rural hinterland. The work was conducted as part of the European Union-funded Local Area Development Programme.
**Background and challenges**

Rural governorates in Iraq are notably experiencing a decline in their rates of population growth, particularly in the southern and central governorates. Poverty rates in the governorates have reached 23 per cent and serious structural problems have contributed to this economic decline, including the low productivity of the agricultural sector, a traditional reliance on oil as the main source of public revenues, and the difficulty in creating a diversified employment base. As elsewhere in the country, rural migration in the governorate of Maysan is the result of "push and pull" factors: low remunerating farming activities act as an expelling force, pushing people, especially youth of working age, towards cities (most often in the underserviced informal settlements of Basra or Baghdad), seeking better job opportunities and urban services.

Qalat Maysan is a rural town of some 40,000 inhabitants. It is surrounded by rural villages and located just off the Basra to Amarah highway on the bank of the Tigris River, just a few kilometres away from the unique ecosystem of the Hawizeh marshes. With all the characteristics of a laggard economy, the district of Qalat Saleh struggles to provide jobs. The reported unemployment rate in the Qalat Saleh district is the second highest in the governorate at over 14 per cent, after Amarah (18 per cent), the governorate capital city. Both Qalat Saleh and Amarah also have the highest figures on youth unemployment at a staggering 29 per cent.

**Solutions and implementation**

The study “Addressing Expansion Needs in the Town of Qalat Saleh, Maysan Governorate” is the final output of one of the 14 capacity-building components piloted under the three-year Local Area Development Programme (LADP II), funded by the European Union, and implemented by UNDP in partnership with UN-Habitat in close coordination with the Iraq Ministry of Planning and local authorities. LADP II aimed to strengthen good governance and improve the delivery of public services in Iraq through improved capacity in sectoral and spatial planning at governorate level. This capacity-building component was to guide the Ministry of Planning (MOP) on tackling the increasing spatial disparities between Iraqi governorates and between urban and rural areas. Government counterparts chose to pilot the component in the Governorate of Maysan, focusing on the rural town of Qalat Saleh. The study summarises the outcomes of a year-long consultation, research and joint pilot planning process aimed at improving the technical capacity of the local authorities to develop sustainable, realistic and needs-driven extensions plans for the town of Qalat Saleh in Maysan Governorate.
This happens within a current process of devolution of responsibilities for the drafting of city plans and extensions to the local level in the country.

Qalat Saleh was characterized by a high number of vacant plots within the municipal boundary (25 per cent), while the municipality’s list of people waiting for land to be allocated reached 2,600. Similarly, reliable socio-economic data were scarce at the district level and national institutions, such as the Ministry of Municipalities, were unable to review and update Qalat Saleh’s Master Plan, first drafted in 1982, because of a lack of resources. The failure to update the Master Plan and approve planned extensions may have contributed to the stunting of Qalat Saleh’s physical and economic growth. Also, the failure to release adequate quantities of publicly owned land for residential purposes at the appropriate locations has created an artificial shortage of land, resulting in inflated prices and informal development.

**Results and impact**

The study, developed in collaboration with the local authorities, recommends to the Maysan Directorate of Municipalities and Construction and Housing and Public Works (MoMCHPW) an integrated set of immediate spatial strategies that comprise of: (i) the formalization and integration of informal settlements; (ii) housing infill, to support economies of agglomeration, in terms of increased efficiencies of land uses, infrastructures and services provision; (iii) the carefully phased allocation of serviced land in approved urban extension areas; (iv) the promotion of a higher degree of mixed land uses to strengthen social interactions and reduce demand for transport, as well as increase local revenues that will in turn help to finance and sustain urban growth; and finally (v) improved connectivity and quality of public spaces through urban retrofitting.

The study was developed in parallel to the drafting (under the same LADP programme) of Governorate Urban Strategies for the Southern Iraqi Governorates, and a Maysan Governorate Transportation Plan – both of which aim to reduce spatial inequalities in line with national priorities through the decentralization of decision-making, to enhance more context-specific spatial approaches. Specifically, the study looked into the interlinkages and interdependency between the rural villages and towns located along the Basra and Amarah highway and the unique but underdeveloped and underserviced Hawizeh marshlands – home to the renown but extremely vulnerable Marsh Arabs tribes.

With the adequate support by central government for the consolidation of an “Amarah-Basra Development Corridor”, and a set of investments in services and livelihoods at the provincial and district-level that target the network of rural towns that crown the marshes, this study argues that Qalat Saleh has a strong chance to prosper and retain its population. This is based on the planning assumption that concentrating and co-locating infrastructure will lead to private infrastructure investments in specific locations, which in turn will create...
clusters of interconnected activities, promote the development of value chains, reduce unemployment, and improve the provision of basic public services. The study offers a range of examples of public investments that can stimulate local economic development (LED), including employment prospects in rural towns such as Qalat Saleh. The recommended public investments in infrastructure, the development of the area's agro-industry and improved access to tourism assets such as the marshes and nearby shrines have a strong potential to leverage private investments and retain the working population and youth who are entering the workforce.

The direct beneficiaries of this work are the staff of Directorate of Regional and Urban Planning in the Ministry of Planning and its directorate in Maysan. Indirect beneficiaries include the 40,000 inhabitants of the town of Qalat Saleh, particularly the marginalized communities that reside in the numerous underserviced pockets of informal settlements that have taken over public land earmarked for public services.

The current process of devolution of responsibilities for the drafting of city plans and extensions to the local level will result not only in better managed urban growth, more equitable delivery of health and education services, and more effective distribution of utilities networks, but most importantly it will also help to alleviate the pressure for land, which will in turn help to contain urban sprawl encroaching on valuable farmland and the uncontrolled growth of informal settlements at the fringes of cities.

**Replicability and sustainability**

Overall, the programme has contributed directly to two outcomes of the framework of the 2015-2019 United Nations Development Assistance Framework (UNDAF). As a spin-off outcome of this exercise, the Governor of Maysan requested UN-Habitat to develop a Socio-Economic Plan for the Recovery of the Maysan Marshes that may start in early 2020.

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions.** This planning study addresses the recognition and concern of Iraq’s National Development Plan (NDP) 2013-2017 that spatial disparities are increasing among Iraqi governorates, especially between rural and urban areas, intensifying the duality in spatial development in the country and maintaining the inherited underdevelopment of rural areas.
• **Integrated governance**: In line with Iraq’s NDP 2013-2017 and NDP 2018-2022, the training initiative promoted the need for the decentralization of decision-making and transfer of urban planning powers to the governorates, as well as improved regional coordination and cooperation between adjacent governorates that share resources, infrastructure, socio-economic challenges and development potential.

• **Functional and spatial systems-based approaches**: To support the need for the new serviced expansion areas requested by the local authorities, the study explores in detail the existing functional interlinkages between the provincial city of Amarah and the towns and villages of southern Maysan that could justify the expected population growth. It specifically looks into the current challenges and economic prospects of the industrial and manufacturing state-owned and private enterprises located along the socio-economic corridor that connects the cities of Basra and Amarah; the existing cultural heritage landmarks, such as the nearby Tomb of Prophet Uzayr, popularly believed to be the burial place of the biblical figure Ezra, a scribe of the Old Testament, and development potential of an improved access to the Hawizeh fresh water marshlands.

• **Do no harm and provide social protection**: The planning initiative attempted to address the inability of the local authorities to deal with the spatial and social inequalities that were hampering the development of Qalat Saleh District and driving people to relocate in the provincial capitals of Amarah and Basra in search for jobs and better services. The final study recommends the urgent regularization of the informal settlements, located in the urban fabric and the integration of those that have grown on the fringes of the town in future urban expansions, in parallel with public investments in its southern underserviced land subdivisions. The study also suggests a number of localized economic interventions, for example to support agro-businesses based in the marsh areas and palm groves that need intermediary services, and social actions to specifically address the low levels of employment and education in Qalat Saleh that are exacerbating tribal conflict and violent extremism among youth.

• **Environmentally sensitive**: The study addresses the need to protect from ill-advised urban development and pro-actively sustain the agricultural vocation of the town of Qalat Saleh, surrounded by fertile arable farmland and dense palm groves lining the riverbanks of the Tigris River. It also seeks to enhance its location as the “entry point” for the nearby Hawizeh marshes, successfully included in the World Heritage List in 2014.
This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Governance, legislation and capacity development**: The study was conducted as a joint “learning-by-doing” assessment and strategic planning exercise with staff of the Ministry of Planning, governorate staff and municipality. It openly supports the strengthening of decentralized governance systems, local decision-making and reformed policy for land distribution, land management and regularization of informal settlements.

- **Integrated planning across the urban-rural continuum**: The study on Qalat Saleh provides a model for bringing together and developing coordination mechanisms between central- and provincial-level planning authorities to enhance their analytical and planning capacity in view of the required update of the Master Plan of a rural town poised to become a vital node along the Basra to Amarah highway.

- **Territorial economic development and employment**: UN-Habitat’s Strategic Urban Development Framework for Governorates in Iraq, developed in 2017 under the same programme, makes a strong case for production-oriented rural/urban linkages and improved connectivity between economic hubs and growth nodes that can offer better marketing and distribution services. In line with this, the planning study identifies the potential for Qalat Saleh to act as a key node in the Basra-Amarah development corridor and provide key services between rural and urban businesses for the storage and processing of agro-food. This can help local producers benefit from a widening of the value chain for their products directed towards provincial markets (dates, fish, dairy products) and as the closest logistics node for tourists visiting the nearby Hawizeh marshes.

- **Environmental impact and natural resource and land management**: Stakeholder consultations have strongly emphasized the need to integrate the management of the Mesopotamian marshes into territorial plans for Maysan Governorate to support the protection of their unique ecosystem and biodiversity. This is so that it can continue to sustain the livelihoods of the Marsh Arabs population, while making the most of its tourism potential. The study recommends the strengthening of the cross-border Iran-Iraq axis through Amarah and the creation of serviced Cultural Heritage Tourist Routes catering for religious pilgrims and nature enthusiasts. Since the World Heritage nomination in 2014, the Mesopotamian marshes have seen a significant increase of local tourists, researchers and nature enthusiasts. Local inhabitants have benefited from this influx of visitors, offering excursions on motor boats or the traditional mashoof (long and narrow wooden canoe) to visit to the uniquely designed al-mudhif (traditional reed house made by the Madan people) and catch sight of rare birds and other animals. Yet, gains from the tourism sector have been very limited because of the scarcity in local accommodation, poor accessibility, lack of information and/or organized tours, which all together severely hinder the development of socio-economic opportunities for the people of the marshes.
Implementation of Guiding Principles and Framework for Action to advance integrated territorial development

**FIGURE 28.** Bird’s eye view of the rural market town of Qalat Saleh, located on the riverbanks of the Tigris River, in a vast fertile plain wedged between two of the wetlands that are part of the Mesopotamian Marshes.

**FIGURE 29.** View of the eastern section of the town of Qalat Saleh, which houses approximately 40,000 inhabitants, and whose Master Plan dates back to 1983 and had not been updated since.
12. INDIA: TAMIL NADU AND ODISHA

Land-Use Planning and Management (LUPM) strengthening the culture of democratic and integrative spatial planning

ABOUT THE CASE

Author: Felix Knopf and Sumana Chatterjee.

Location: Ganjam District, Hinjilicut Municipality and surrounding villages in Odisha State, India

Erode, Nilgiris, and Tiruppur Districts, Region of Coimbatore, Tamil Nadu State, India.

When: 2016 - May 2019

Partner(s): Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Department of Land Resources (DoLR) of the Ministry of Rural Development (MoRD), Government of India; Planning Department, Housing and Urban Development Department of Tamil Nadu State; Housing and Urban Development Department, Revenue and Disaster Management Department of Odisha State.

Brief description: The Land-Use Planning and Management (LUPM) project aimed to improve systematic spatial planning, unlocking the potentials of urbanization in rural areas and jointly addressing urban and rural issues. The project was implemented over a period of over three years in two states, Tamil Nandu and Odisha, which are characterized by a rapid expansion of towns into their adjacent rural areas. To improve systematic planning, the project enhanced the capacities of state-level planning institutions and community organizations and members to take spatially informed decisions at state, regional and local levels. This enhanced the planning culture, promoting the integration of urban and rural areas. The project successfully showcased the need and importance of public participation at all stages of planning.
### Background and challenges

Whilst boundaries between urban and rural areas are becoming increasingly blurred, urban sprawl in India causes disjointed areas of human settlements that are often disconnected from essential public infrastructure such as water supply, waste management, power supply and educational facilities. Peri-urban areas are often unplanned and urban areas appear outside the planned boundaries of cities. This reduces the availability of forests and green spaces, grazing and agricultural land and other natural resources by diverting land for urbanization and industrialization. This hampers sustainable and inclusive development and limit livelihood perspectives for the population in affected areas. It is therefore important to curb the challenges of diverging territorial needs and dividing governance functionalities.

In India, spatial planning is mostly implemented at two levels. At the central and state level, regional corridor plans provide development strategies; at the local level, urban local bodies and development authorities prepare masterplans which determine land use for a city. While jurisdictions of these planning institutions are limited to mostly urban administrative boundaries, peri-urban growth sprawls on land without planning authorities and land-use plans in place. Rural administrations are neither mandated nor capacitated for planning the rapid peri-urban growth. Customized solutions for the specific needs and conditions at the local levels - cities and villages within a district/county - are usually not considered. Moreover, villages and small towns do not have sufficient institutional capacities for planning and are often dependent on decisions, funds and political power at higher administrative levels. All of these pose new challenges for policy-makers and planners. To unlock the development potentials of urbanization in rural areas, planning needs to address levels that encompasses both urban and rural issues.

### Solutions and implementation

The Land-Use Planning and Management (LUPM) in India project was implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) in partnership with the Indian Department of Land Resources (DoLR) under the Ministry of Rural Development (MoRD). The LUPM aimed to improve systematic spatial planning both to unlock the potential of urbanization in rural areas and to address urban and rural issues. Systematic in this context means to interlink plans at state, regional and local scales, define standards and methods for each level and provide a robust policy back up at the state level. It was agreed with the planning organizations to have periodic revisions and monitoring for catering to systematic planning.
The project was implemented over a period of over three years in two states: Tamil Nandu and Odisha, which are characterized by the rapid expansion of towns into their adjacent rural areas. The project demonstrates the idea of a normative approach of land-use planning and management. It provided technical support to planning, capacity development for governmental planners and policy advice at decentral level.

Leading planning experts recommended the district as the suitable administrative level to connect the very broad strategic planning at national and state level with the detailed planning at the very local level - cities and villages. In fact, the 74th Constitutional Amendment Act of India (1992) assigns the mandate of spatial planning not only to local bodies, but also to the 732 districts (counties) in India. After the analysis of various existing land-related policies and guidelines of the two pilot states of Tamil Nadu and Odisha, a multi-sectoral working group was set up for each state to start a consultative process of weighing the interests of each of the economic, social and environment sectors in the two states. The consultations were structured under the three fundamental themes of sustainability: environment, economy and society. The working groups drafted a holistic state land-use planning policy for each state. This policy in both cases was accompanied by a set of norms (e.g. mapping standards, zoning regulations, planning processes and land-use standards as well as institutional frameworks for district regional planning, coordination mechanisms and mandates), which were published as manuals.

The manuals were used to support regional planning in the demonstration areas through the formulation of regional and local plans by the state planning institutions with technical support from GIZ. Regional spatial plans (1:50,000) enable the visualization of multiple sectoral plans and future growth of economic and human perspectives at a district level, while local plans show projected plot-wise land use (1:10,000). Through the development of integrated district plans, decentralization of planning processes is promoted and decision making by district planning committees is improved. District plans also inform land-use plans, which balance ecological, economic and social aspects to benefit local populations. Both regional and local plans are linked to the state land-use strategy (1:1,000,000) which was formulated as part of the state land-use planning policy. At the district level, preparation of plans - from formulation to final stages - involved a wide range of stakeholders and public participation. At the local level, participatory land-use plans were prepared 14 villages in both states.

Results and impact

In line with the principles of a territorial approach to development, the project displayed that a spatial development vision of the state is crucial to further formulate and specify plans at regional level and to guide local planning authorities in preparing land use and development plans. Similarly, it is expected that participatory local planning techniques will inform and being in trainings and guidelines at state level institutions.
The LMPU recommended the state government to institutionalise a bottom-up approach for planning at all levels. Therefore, the LMPU relies on an amalgamation of top down and bottom up planning.

The state land use planning policy lay a foundation for regional planning rules to be replicated in other regions. Particularly, the regional/district spatial plans (1:50,000) demonstrated to be a tool for enhancing the spatial planning culture at the regional level, where both urban and rural areas are integrated and considered equally. Plans at the local level successfully showcased the process, need and importance of public participation at all stages of planning.

**Replicability and sustainability**

The entire planning process for the two demonstration areas capacitated and empowered government planners and community organizations and members to take spatially informed decisions at community level. Moreover, state officials were trained on topics of land-use planning, regional planning, environmental impact assessment and participatory village planning. Capacity building measures were linked to the demonstration areas and to the outcomes of the consultations at state level. The trainings were crucial to facilitate a better application of policies, norms and demonstration plans and will be continued in different forms in the two states. This will be accompanied in the years to come by GIZ in order to fully implement the policy and integrate the trainings into state training institutes.

In both states, nodal government departments made suggestions to develop the public institutions in a way that regional planning can be embedded in the day to day decision making of governments, local administrations and communities. The project has attempted to address the urgent need to produce more knowledgeable and innovative planners in India. Therefore, more than 200 students from four Universities (CEPT University, SPA Bhopal, College of Engineering and Technology (CET), Xavier University Bhubaneshwar) have been involved in plan preparations, site visits and analysis, and conferences to expose them to a real-life project and familiarize them with planning tasks.

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions:** In order to institutionalize the participatory planning processes sensitized by local NGOs, Village Development Committees (VDCs) were formed in planning areas. The committees were set up to meet at regular intervals for planning, implementation, steering and monitoring of land-use plan preparations.

- **Integrated governance:** The LMPU sought to strengthen governance mechanism by promoting a culture of planning integration at different levels - state, district (regional), and local - of decision-making.
Furthermore, district/regional spatial plans enable the visualization of multiple sectoral plans and the integration of urban and rural areas.

- **Participatory engagement**: Village land-use plans involved a high degree of participation, including vulnerable populations. To ensure the meaningful participation of the local population in the decision-making process, they were empowered through building capacity in spatial land-use planning. This entailed using tools as social mapping, resource mapping and dream map preparation for their villages.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Governance, legislation and capacity development**: The project established ongoing capacity development for government planners and community organizations, enhancing the planning culture by promoting systematic and integrated planning. The implementation of the LUPM also served as a strategy to raise awareness on the benefits and dynamics of urban-rural linkages by promoting the formulation of integrated plans. Cross-sectoral collaboration with academia was also established and, in coming years, it is aimed to integrate the project trainings into the curricula of state training institutes.

- **Integrated planning across the urban-rural continuum**: Improved planning across the rural-urban continuum contributes to a better understanding of specific needs of people living in or moving between different “zones” and helps to understand the specific development potentials of local places. Furthermore, it harmonizes requirements from various sectors and therefore enhances a more efficient use of natural resources to protect biodiversity. Integrated planning forms the basis for evidence-based decision making. It sets priorities for developmental investment with a long-term vision agreed to by all affected stakeholders. The nature of the project considers the relevant principles of a territorial approach namely: place-based, people-centred, cross-sectorial, multi-level governance and multi-stakeholder.
The “problem tree” is one of the instruments to carve out causes and effects of land related issues in peri-urban areas. Location: Venketaraypalli village of Pochilima Gram Panchayat, Hinjlicut Block, Ganjam district, Odish.
13. COLOMBIA: METROPOLITAN AREA OF ABURRÁ VALLEY

**Metropolitan Green Belt**

**ABOUT THE CASE**

**Authors:** Juan David Palacio Cardona, Andrés Felipe Álvarez Grajales, Pablo Marcelo Maturana Guzmán, William Alberto Alvarez, and Aura Camila Giraldo Zuluaga.

**Location:** Metropolitan Area of Aburrá Valley (Medellín, Envigado, Itagüí, Sabaneta, La Estrella, Caldas, Bello, Barbosa, Girardota, Copacabana)

**When:** The project began in 2013 and is expected to last until 2030.

**Partner(s):** Metropolitan Area of Aburrá Valley (lead role), Medellín, Envigado, Itagüí, Sabaneta, La Estrella, Caldas, Bello, Barbosa, Girardota, Copacabana, National University, EAFIT University. All universities have the role of investigators and they conduct the studies for the inputs and formulation of strategies.

**Brief Description:** The Metropolitan Green Belt (MGB) is a planning strategy aimed at addressing some of the most negative manifestations of planned and unplanned occupation or urbanization of the territory, advancing over the hills and the water basins of the Aburrá Valley. The MGB is designed in a way that recognizes particularities in the distribution of areas to be preserved and enhances ecosystem services. As a result, three planning areas have been defined: the External Belt, the Ecological Connection Structure and the Urban-Rural Transition System. It will also strengthen co-responsibility between citizens and government with the application of civic-pedagogical urbanism, and the promotion of participation and culture through urban interventions.
**Background and challenges:**

Medellin is the second major city in Colombia and is located in the north-western region of the country. The city lies in the Aburra Valley, which is crossed by the Medellin River and bordered by mountains and hills to the east and west. The municipalities of Envigado, Itagüí, Sabaneta, La Estrella, Caldas, Bello, Barbosa, Girardota and Copacabana also lie in the Aburra Valley and, together with Medellin, form the Metropolitan Area of Aburrá Valley (AMVA). According to estimates by the National Administrative Department of Statistics (Dane), the current population of the Aburrá Valley is 4.8 million, with some of these people living on the surrounding slopes of the valley land.

**Solutions and implementation:**

To address these challenges, the AMVA designed the Metropolitan Green Belt (MGB) planning strategy in 2013. The strategy has a holistic approach that seeks to preserve the natural ecosystems of the hills while improving the quality of life of those who inhabit them and prioritizing vulnerable populations. The MGB has a 12-year implementation schedule. It is founded on three pillars which correspond to how it is executed in the areas of intervention: environmental restoration, habitat and housing improvement, and pedagogical education and urbanism.

The environmental restoration pillar seeks to initiate processes of restoration of the ecosystem, protection of the archaeological heritage, and risk mitigation through the conservation of green spaces, recovery of the streams and solid waste management, among others. Comprehensive habitat improvement seeks to advance different housing processes, such as the relocation or construction of houses and the definition of management and uses of the land, in order to consolidate a balanced and equitable territory in the area of encounter between the urban and the rural and its area of influence. This pillar also includes the construction of infrastructure, such as schools, sports arenas, transport and mobility that would help to break the isolation between the rural communities and the city. The third pillar, civic and pedagogical urbanism, is understood as a strategy of “interaction and social cohesion to promote culture in the territory through urban interventions”.

Planned and unplanned settlements on the slopes have formed neighbourhoods of different socioeconomic groups. These communities are often exposed to a variety of hazards, such as landslides and flooding, which are associated with increased rainfall due to climate change. The AMVA and the academic sector have identified these communities, specifically low-income communities, as increasingly vulnerable. In addition, the expansion and appearance of new settlements in these high-risk zones is blurring the line that separates the urban from the rural areas in the Aburra Valley.
It is implemented through education, workshops, a process of participatory construction between actors, information sharing with communities, roundtables, cultural and recreational days.

The MGB considers three different planning areas, where the ecological restoration, habitat and housing improvement, and the pedagogical education and urbanisms are deployed, according to the particularities of the territory. These planning areas are the External Belt, the Ecological Connection Structure and the Urban-Rural Transition System are established on a plot scale analysis.

- **External belt**: structure of ecological protection for the rivers and basins of the valley. The wood cover or forest in this belt contributes to the conservation of species, as a biological corridor and in the mitigation of climate changes.

- **Ecological connection**: territorial interventions to connect the external green belt with transition urban-rural through riverside vegetation to generate additional benefits.

- **Urban-rural transition system**: this is the transitional strip that incorporates urban uses of the land and also traditional rural uses as informal settlements, agricultural and livestock use, extraction of materials and others.

These analyses are informed by the data collected by the national university, which also manages the studies and surveys that inform the different municipalities and land management plans, called POTs or “Planes de Ordenamiento Territorial”, and which are the main legal tool to ensure the different uses of the land. Also, the metropolitan area as a planning authority has studies and information that served as the big data base to begin the projects. The properties and plots to be included in the MGB would be classified as areas of distribution of urban charges, defined as investment and interventions on public infrastructure, public services, green areas, parks, cultural places and costs associated with formulation and planning processes.

**FIGURE 32. Metropolitan Green Belt Strategy**
The MGB integrates a range of management strategies such as the purchase of premises, construction of edge parks, ecological restoration, protective reforestation production, contracts of custody of the territory, payment for ecosystem services or environmental compensations, agreements for changes of use of the premises, urban signage, social and community appropriation, among others. This management strategies will allow the plan to be accomplished, and the pillars are the way to implement it in the territory as actions once the strategies and the planning areas are settled.

**Results and impact**

The beneficiaries are the communities living around the green belt because the infrastructure will give them mobility from the periphery to the corridor of the Medellin River, the construction of parks and safer places, resettlement development, urban consolidation and habitat improvement projects, public facilities, centrality strengthening and linear parks, a bike path and access for people with reduced mobility, urban furniture, lighting, gardens, security cameras.

So far, the project has made some progress on the following:

1. **Environmental recovery**: seeks to initiate processes of ecological restoration, protection of the archaeological heritage, risk mitigation from the conservation of green spaces, recovery of the streams, the solid waste management, among others.

2. **Comprehensive habitat improvement**: advanced different housing processes (such as the relocation or construction of houses and the qualification of land, for example), in order to “consolidate a balanced and equitable territory in the area of encounter between the urban and the rural, and its area of influence”. Likewise, the construction of equipment such as schools, sports areas, transport and mobility that would help to break the isolation between the rural communities and the city.

3. **Civic and pedagogical urbanism**: this is understood as a strategy of “interaction and social cohesion to promote culture in the territory through urban interventions”. It is applied through education, working tables, cultural and recreational days, etc.
1. **Locally grounded interventions**: The Aburrá Valley has topographical and geomorphologic conditions that create difficult conditions, which must be reorganized and rethought if we want to achieve sustainability for future generations. These adverse conditions have forced local administrations, institutions and authorities to generate projects and strategies unique to the territory that ensure the provision of resources and conservation of existing territory with local interventions based on studies and planning tools that contribute to the management and territorial sustainability.

2. **Integrated governance**: The AMVA is an organization of 10 municipalities around three main themes: urban-rural planning, environmental issues and public and collective mobility. The governance is reflected in this project when an authority, the municipalities and its institutions, the universities, civil organizations and communities contribute in the formulation of the plans, through a participatory processes in which each part has a role and involvement to accomplish the purposes.

3. **Balanced partnership**: One of the main objectives of the management of the Metropolitan Area of Aburrá Valley is the generation of alliances and the articulation of actors in order to work for a common project. Each plan is a collective construction where each partner or actor assumes goals and commitments, so the private sector is linked to their contributions, universities investigate the particularities and their studies, and the community is committed to environmental conservation and protection based on awareness-raising and educational campaigns.

4. **Environmentally sensitive**: The main purpose of the project is conservation of the ecological connectivity and the ecosystem surrounding the cities, as well as to guarantee the borders for supplying natural resources such as water.

This initiative gives evidence to the URL-GP of:

1. **Governance, legislation and capacity development**: The Metropolitan Green Belt assesses capacity and needs for policy tools; enhances dialogue and cooperation across sectors (municipalities, communities, private sector and other stakeholders) and planning levels, it convenes new multi-level, multi-sector and multi-actor governance mechanisms, and supports the inclusion of affected urban and rural populations.

2. **Environmental impact and natural resource and land management**: The metropolitan area, through its projects as the MGB, conducts strategic environmental assessments to reduce environmental risks from severe flooding, drought, storms, etc.; addresses land and water tenure and sustainable use of natural resources, protects biodiversity, promotes ecosystem-based production systems and builds resilient landscapes.
FIGURE 33. View to the Aburra Valley and surrounding hills.
14. INDIA: MAHARASHTRA AND ANDHRA PRADESH

RURBAN Platform under Integrated Rural Urban Water Management for Climate-based Adaptations in Indian Cities (IAdapt)

ABOUT THE CASE

Authors: Bedoshruti Sadhukan and Emani Kumar

Location: 1) Solapur, Maharashtra, India. 2) Vijayawada, Andhra Pradesh, India


Partner(s): ICLEI - Local Government for Sustainability; South Asia (ICLEI South Asia), India; Athena Infonomics LLC, Chennai, India; International Water Management Institute (IWMI), Colombo, Sri Lanka; Indian Institute of Technology, Madras (IITM), India. Project supported by International Development Research Centre, Canada.

Brief Description: The sustainable management of water resources is challenged by the fact that water sources often lie outside the city and therefore are outside the jurisdiction of urban local governments. It is therefore imperative for urban local governments to consider surrounding - peri-urban or rural areas - to make and implement integrated water management plans. The RURBAN (Rural – Urban) Platform is designed as a unique platform where decision makers and relevant stakeholders from urban and rural areas (government and non-government) can come together to undertake a collaborative and participatory water management. Once institutionalized, this can be an effective institution to manage shared resources collaboratively.
Background and challenges

Cities in South Asia face extreme water insecurity due to changing climate and rapid urbanization. The cumulative impacts of these factors include flooding, water shortages and drought in city boundaries and in their surrounding catchments (watershed), as well as a range of short-term and long-term consequences for human health, physical assets, economic development and social systems. Cities are not closed systems and, in most cases, city centric responses alone are inadequate to address these challenges. The IAdapt project supported by the International Development Research Centre (IDRC) is working in two Indian cities - Solapur in Maharashtra State and Vijayawada in Andhra Pradesh and their surrounding catchments – which face issues related to droughts, floods and water conflicts.

Solutions and implementation

The overall objective of the project is to build an enabling ecosystem to empower cities and their decision makers (mayors, commissioners, city engineers, etc) to transition away from traditional approaches of water management that plan for water supply, wastewater and storm water as separate entities in siloes to an “integrated approach” based on the principles of Integrated Water Resource Management (IWRM) and Integrated Urban Water Management (IUWM). This project builds on previous work undertaken by ICLEI South Asia with support from the European Commission, which highlighted the need for institutional mechanisms for cities to interact with their rural catchments to address water security.

In order to move to a water management-integrated approach, the project aims to improve water security by institutionalizing climate change adaptation measures in water management at a catchment level. Institutionalization will be guided by the adoption of participatory catchment planning through simple decision tools, a five-phase framework that gives step-by-step guidance to formulate a catchment level water resources management plan, multi-stakeholder rural urban (RURBAN) platforms, and multipronged financing approaches. The project contributes to Sustainable Development Goals 6 and 11 and the New Urban Agenda. At the national level, the project links to the National Water Mission, the National Action Plan on Climate Change and various ongoing urban development schemes of the Government of India.

The project promotes (contributes to the growth of) scientifically informed participatory planning for climate-adaptive water management in India. To select the catchment and the most vulnerable region in each city region, a detailed SWOT analysis was carried out that considered physical, socio-economic and environmental parameters.
Hydrological and climate modelling using different RCP (representative concentration pathway) scenarios was carried out in both project cities. The five-phase framework, namely IAdapt Framework, was developed targeting local authorities, both rural and urban, to develop integrated, climate-adaptive catchment level water management plans in a participatory manner by engaging with stakeholders at urban and rural levels. Both rural and urban stakeholders are engaged through a RURBAN Platform, using data and information collected from local authorities and other government sources, and conducting a climate risk and vulnerability assessment of the water sector for the region. Based on the vulnerability assessment, resilience interventions are defined to reduce climate risks to water resources and manage the use and conservation of water at a catchment level. A Decision Support Tool has been developed under the project to help the RURBAN Platform to take climate informed decisions. This tool helps the local governments to select those interventions that support climate resilience and to focus their funds more effectively.

The RURBAN platform is based on the premise that no city or village can be considered in isolation while developing water management plans. The platform aims to develop water management plans for shared water resources through participatory planning and decision-making. The RURBAN platform brings together rural and urban stakeholders from government decision makers (rural local governments (Panchayats)), as well as implementers and practitioners from the non-governmental and civil society sectors (e.g. farmers and rural women). The platform provides a supportive environment for openly discussing and debating stakeholders' problems and needs, and addressing them through collaborative and participatory decision making. Such decisions consider sectoral and territorial interlinkages with water - such as waste water, rain water, industry, agriculture, public health and economy - so that no one group is adversely affected while planning for climate adaptive water management, developing catchment level plans. Conflicting demands of water can also be addressed through the platform which will help to sustainably manage water resources that are shared by different stakeholders. The project will benefit both the rural and the urban stakeholders by securing existing water resources against climate change.

The RURBAN platform has two major challenges. The first is that rural and urban areas fall under the jurisdiction of different government bodies and getting them to come together for collaborative action was difficult in the initial phase of the project but was resolved over time. The presence of a full-time project staff member in each city helped with this issue. The second challenge is that the catchment level plans for water management will need to be implemented at a spatial scale that does not match administrative jurisdiction, in the sense that catchment boundaries do not coincide with administrative boundaries of local governments – typically they are larger. Only one rural or urban government cannot adequately address the catchment level – which is not currently a governance level – because they do not have complete authority over it.
But development partners that promote collaborative partnerships and implementation of projects can bring multiple local governments together to work at a catchment level.

Results and impact

Shared learning dialogues have already been conducted in which RURBAN Platform members met to discuss their water-related issues and identify solutions. Trainings and community level meetings were organized to engage with the community and plan together. The project has already led to the formulation of a catchment management plan for the two project cities along with the RURBAN Platform though the interventions selected in the plan are yet to be formally ratified in the RURBAN Platform and a shared learning dialogue is envisaged for this ratification. Some of the interventions are to be executed under the project as pilots that are at various stages of completion.

Replication of the RURBAN Platform in other parts of the country can be an added impetus to the development of a policy for such rural and urban interactions and partnerships.

Replicability and sustainability

The project offers immense potential for replication. The RURBAN Platform can be replicated in city regions across the nation and region, which can be ensured if the RURBAN Platform is institutionalized in the governance mechanisms.

As part of the project’s sustainability and replication plan, discussions have been initiated with government officials at national and state level to institutionalize the platform through a government order.

Once this is achieved, scaling up is possible in other cities.

Key lessons learnt include:

- Collective, scientifically informed water management will help to effectively address water crisis issues, which will be augmented due to climate change.
- Acceptability and accountability of management plans undertaken by the government increase drastically with an open platform discussion.
Understanding of varying needs of rural and urban stakeholders can help to make more compassionate, efficient management plans and avoid mal-adaptation practices.

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions**: The RURBAN Platform takes into consideration the on-ground challenge of jurisdictional restrictions of managing shared water resources by engaging different stakeholders across the urban-rural continuum.

- **Integrated governance**: RURBAN Platform helps to bring together rural and urban local governments for participatory decision making. It promotes integrated governance by providing them with an enabling environment to work together in a collaborative manner. Local NGOs, institutions, and the private sector are invited by officials to be formally part of the platform and participate in the meetings.

- **Balanced partnership**: The platform creates a network that links urban and rural actors, provides an opportunity to identify issues faced by different stakeholders and addresses them through discussions and debate. It enables all stakeholders to convey their problems openly and identify solutions that are acceptable to all. Marginalized groups are represented through NGOs or community organizations and elected representatives. Specific efforts are made to include women in the discussions.

- **Do no harm & provide social protection**: One of the benefits of the platform is to identify solutions to local issues in a participatory manner that does not affect any stakeholder adversely. Decisions are taken that will be acceptable to the majority of the stakeholders and benefit them.

- **Environmentally sensitive**: The RURBAN Platform’s primary objective is to promote management of shared natural resources. It includes institutions and practitioners who can advise decision makers and guide the scientific and environmentally sustainable management of resources.

- **Participatory engagement**: The RURBAN Platform is designed to meet regularly and take decisions in a participatory manner. It includes stakeholders from both rural and urban areas, institutions, organisations and civil society so that everyone’s needs are addressed, and no one is adversely affected by a particular decision.

- **Data driven and evidence-based**: The RURBAN Platform uses primary and secondary scientific climate data to support the planning of water resources effectively by considering all climate risks to the demand and supply of water in urban and rural areas.
This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Integrated planning across the urban-rural continuum**: The platform provides an opportunity to consider the interlinkages and inter-dependencies of different stakeholders on shared natural resources. This facilitates integrated planning, taking into consideration all requirements and meeting the needs and demands of various user groups of water.

- **Knowledge and data management for dynamic spatial flows of people, products, services, resources and information**: The platform has regular meetings and engages with local institutions and organizations who support the decision making by providing scientific and reliable information that can feed into the water management plans.

- **Integrated approaches for food security, nutrition, and public health**: The RURBAN Platform, through integrated water management plans, promotes water sector interactions with other sectors and strengthens linkages with land use, agriculture and industry. It promotes nexus approaches that look at impacts of water on food security and public health as well.

- **Environmental impact and natural resource and land management**: The RURBAN Platform, with its cross jurisdictional, integrated water management, promotes reduction of climate impacts on natural resources such as water. By planning to manage water resources and giving due consideration to land and other related resources, it can support economic and social equity without compromising the sustainability of vital ecosystems.
FIGURE 34. Open streams discharging wastewater from a village to drinking water resource.

FIGURE 35. On ground implementation of rooftop rainwater harvesting system for ground water recharge in Solapur.
ABOUT THE CASE

Author: Michaela Jones, Mark Stone and Janene Yazzie.

Location: Rio Chama, New Mexico, United States of America

When: Begun 2018; currently funded by the National Science Foundation until 2022. Ongoing; tentatively 1 Nov 2018—21 Oct 2022 but with a vision to be extended.

Partner(s): Partners in the transect work at several sites in western, North and South America; this project builds off of other existing projects, including the Rio Chama Flows Project under the leadership of Rio Grande Restoration (a local non-profit). Direct partnerships in the Chama region are typically informal so as to maximize collaboration with informal institutions. This intervention represents a partnership between the University of New Mexico (UNM), local NGOs, and state and federal agencies. Further, UNM is a partner in the Transect of the Americas project and benefits from collaborative relationships with 10 academic and research institutions in six different countries.

Brief Description: Characterize the Rio Chama watershed as a complex adaptive system and create easily accessible tools to enable decision makers to use a resilient systems framework. The primary desired outcome is a more participatory, adaptable and data-driven, system-level water management regime.
Background and challenges

The Rio Chama River is located in northern New Mexico and southern Colorado in the United States. It connects the Colorado River to the Rio Grande, which eventually flows to the Gulf of Mexico. The Rio Grande serves metropolitan areas in New Mexico, Texas and Mexico and along the Rio Chama are several small towns and villages as well as the City of Española. In 2018, the Resilience Institute of the University of New Mexico (UNM) in partnership with local NGOs, and state and federal agencies started a characterization project on the watershed of the Rio Chama.

The project aims to empower decision-makers in the watershed region through a watershed characterization, which will provide a better understanding of the current state of the Rio Chama as well as the impact of political decisions on the river and its interconnected socioecological systems at different spatial scales. The characterization is designed to empower stakeholders throughout the water governance matrix and improve inter-agency collaboration.

The characterization will provide data and detailed descriptions of the current state of the river using a report and system diagram to provide recommendations for improving the Rio Chama’s hydro-socio-ecological resilience from policy and practice perspectives. Resilience is defined as the capacity of a system to adapt to stresses and shocks while maintaining its core functions, and hydro-socio-ecological refers to the characteristics of the river and the society and ecosystem that rely on it.

Three main hydro-socio-ecological challenges were identified along the Rio Chama. The first relates to water quantity and timing. International compacts, including the 1944 Water Treaty between Mexico and the United States, mandate that the Rio Grande reaches downstream users in Texas and Mexico and sufficient water must flow from the Colorado River and Rio Chama headwaters to the Rio Grande. Climate change has impacted the timing and intensity of precipitation and spring meltwaters. The second challenge is human interventions along the river as infrastructure changes, including the construction of large dams that have altered the channel geometry and sediment deposition, posing challenges for flood risk management. Pollution, primarily from septic tanks, is also a major concern. The third is a governance challenge since the Rio Chama spans a varied urban-rural continuum across New Mexico, but governance strategies are often disconnected. The Rio Chama is governed by local, city, county, state, national and international laws and institutions. The governance matrix in the Rio Chama watershed is complex and the priorities of several stakeholders clash.
Solutions and implementation

The central feature of the characterization project is a multifaceted systems analysis that treats the river as a complex adaptive hydro-socio-ecological system and analyses how changes to one system element impact others. Data used for this project includes US Geological Survey data on precipitation, temperature and river flow rates, evidence available from previous master planning and evaluations (such as the Rio Chama Flows Project), and information gained from discussion with local water users. The project is being completed as part of a master’s thesis at the University of New Mexico, and resources used primarily come from the university. The intended impact is to establish what parameters are important to understanding the system and describe their current state, resulting in simple descriptions and graphics that will help decisionmakers in the region better understand the impacts of their choices.

A critical facet of the project is to support participatory and inclusive decision-making, and community engagement, such as meeting with and attending presentations by major regional stakeholders, has influenced both the format of the characterization and the parameters by which the watershed will be characterized. Obstacles to implementation will be few in terms of the project itself—the characterization and diagram will be created and disseminated to key decisionmakers—but it will be up to the policy makers and water users to act on the given recommendations.

Results and impact

Short-term beneficiaries will include decision-makers, educators and policy makers along the Rio Chama. The characterization will provide useful information to Rio Chama stakeholders about the current state of the system, including information on climactic trends and other stakeholder groups.

Decision-makers will have an additional tool which will enable them to consider multiple scales of interconnected social and physical components and processes in a functional and spatial systems-based approach. Collaboration between stakeholder groups may be facilitated and encouraged.

Middle-term impacts will be specific water policy changes intended to improve resilience. These may include regular pulse flows to clear sediment, more stakeholder meetings, changes to infrastructure, or others. Long-term impacts will result from the adaptation of policies implemented in the middle-term based on continued monitoring.

As hydro-socio-ecological conditions continue to change, interventions must continue to respond to new stressors while meeting current needs. Evidence-based decision making can only continue to occur if the evidence continues to be gathered.
The project is still in progress and no changes have yet occurred. The ultimate goal is a resilient water management regime that addresses social, ecological and hydrological challenges. The short-term product of this project is the system characterization; medium- and long-term impacts will be achieved through the implementation of resilient governance strategies. Key challenges will include maintaining ongoing monitoring in the watershed and ensuring that participatory processes are influential in decision-making. A framework for determining the success of the project should include:

- listing new policies and legislation affecting the Rio Chama that focus on resilience
- identifying elements of the original characterization that are still being monitored
- assessing the overall well-being of the hydro-socio-ecological system, comparison with previous years

**Replicability and sustainability**

Among the most important elements of this project is its replicability. The diagram and characterization will be produced in collaboration with other transect partners who will create similar documents for their own regions, ultimately leading to general templates which others may follow to understand their own watersheds. The core idea of the project is resilience, which emphasizes adaptation to changing conditions. This framework is designed to continue over the long-term and, because it is focused on change, it is naturally suited to scaling interventions up or down as appropriate to benefit more people or improve the benefits to the existing population served.

A main message of the project is that governance along the Rio Chama should adapt along with the needs and resources of those it governs, and that such changes require continued monitoring and evaluation of the hydro-socio-ecological system. The improvement of knowledge and data in turn improves governance and legislation through evidence-based decision-making. In addition, integrated planning is required in order to design infrastructure that serves urban water needs without damaging the rural environment. For this, integrated planning across the urban-rural continuum is needed.

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions**: This project recognizes that context is key to successful multiscale governance and it seeks to empower actors at all levels of hydro-eco-social governance to make decisions as appropriate for their own region.
• **Integrated governance**: The governance matrix of the watershed spans multiple spatial, social and temporal scales which must be linked to a greater degree to promote synergistic management choices.

• **Functional and spatial systems-based approaches**: The project understands the Rio Chama as system including drivers, stressors, boundary conditions and populations served. This implies considering the watershed as the scale of analysis and interconnected social and physical components.

• **Environmentally sensitive**: Understanding how sensitive the environment will be to different interventions, and acting accordingly to maintain ecosystem services, is a key goal of resilient governance. This project will seek to describe environmental reactions to past changes to allow future decisionmakers to act with those results in mind.

• **Participatory engagement**: Focus to ensure that ecosystem services are managed in accordance with the needs and observations of stakeholders.

• **Data driven and evidence based**: The project seeks to close data and information gaps through multiple knowledge types, recommend continued monitoring of key indicators, and fortify the overall state of knowledge of the watershed by demonstrating the connections between system components. The information will allow decision makers to evaluate the impact of their options across the entire watershed and will encourage data-driven decision making.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

• **Governance, legislation and capacity development**: The recommendations that will be included in the characterization will be primarily aimed at improving water governance and legislation in regard to resilience.

• **Integrated planning across the urban-rural continuum**: This framework element may be the most relevant to this project. The aim of the system-level resilience characterization is to promote resilient governance across multiple urban and rural areas.

• **Empower people and communities**: Resilient governance recommendations will include increasing opportunities for marginalized groups to take part in participatory decision-making processes and encouraging more powerful actors to engage more with other water users and decision makers—for example, connecting county-level and community-level water managers.
- **Knowledge and data management for dynamic spatial flows of people, products, services, resources and information**: Recommendations for resilient water governance will centre on evidenced-based decision making and continued monitoring of the chosen parameters.

- **Infrastructure, technology and communication systems**: A key element of this project is to encourage evidence-based and data-driven decisions, and a desired result is ongoing data collection. Another key goal is to influence the addition of new infrastructure or changes to existing infrastructure to be environmentally appropriate and nondisruptive.

- **Environmental impact and natural resource and land management**: Hydro-eco-social governance centres on impacts of people on natural resources and vice versa. Governing the Rio Chama in a more resilient manner will entail considering the impacts of land and water management on the environment as a key factor in making decisions.

- **The urban-rural continuum in the face of conflict and disaster**: When water shortages or drought conditions occur, conflict is inevitable. An integrated and resilient governance approach will allow stakeholders to collaborate and implement novel solutions to address such challenges.
FIGURE 36. Graduate students from the University of New Mexico collecting insect samples to quantify environmental improvements from environmental flows.

FIGURE 37. Students meeting with community members to discuss the challenges associated with high streamflow causing damage to acequia infrastructure.
16. UNITED STATES OF AMERICA: ALBANY COUNTY

Rural-Urban needs assessment

ABOUT THE CASE

Author: Rebecca Platel

Location: Town of Rensselaerville, Albany County, New York, United States of America

When: January 1, 2019-December 31, 2019

Partner(s): Carey Institute for Global Good (Project Lead), Town of Rensselaerville (municipal sponsor), Hudson River Valley Greenway (funder)

Brief Description: The needs assessment was designed to identify needs and opportunities for improved connections between Albany County’s rural hill towns and nearby urban centres. By collecting data and engaging the perspectives of rural actors (residents, rural elected officials) and regional agencies (actors), the assessment has identified opportunities to improve and strengthen rural-urban linkages in a way that benefits the quality of life and economic opportunity of hill town residents. The needs assessment has helped bring the concept of rural-urban linkages and foster public discussions on the state of urban-rural linkages at town, county and city level. This has already resulted in improved awareness and communication between elected rural officials and regional development agencies.
Background and challenges

Albany County boasts a diverse landscape. It is the seat of New York State’s capital city (Albany) with 90,000 people and is a hub for the region’s growing nano-technology industry. Meanwhile, nearly 50 per cent of Albany County’s land base is rural and home to only 4 per cent of the population. These rural communities have not directly benefited from the nano-technology development initiative and continue to face economic and demographic decline.

Solutions and implementation

The Carey Institute’s Sustainable Communities Programme seeks to advance the role of rural communities in sustainable and equitable development. Strengthening rural-urban linkages is a core strategy outcome of the programme. The needs assessment was developed and implemented to address the lack of data and information about linkages between the rural and urban communities. The goals of the project are to identify needs and opportunities for improved connections between Albany County’s rural hill towns and nearby urban centres, and to assess gaps in knowledge, understanding the tools needed to establish or strengthen those connections. Thus, the projects seek to contribute advancing knowledge on the role of rural communities in sustainable and equitable development, benefiting hill town residents by identifying opportunities to improve and/or strengthen rural-urban linkages in a way that benefits or improves their quality of life and economic opportunity.

The needs assessment methodology was chosen because it offered a broad-based format to explore rural-urban linkages as a strategy for more equitable development in the target region, before focusing specifically on any one sector or theme. The project objectives included: compiling existing data, information, examples and resources about rural-urban linkages between targeted communities and identify gaps in data, information and resources; assessing stakeholder knowledge of how the rural and urban communities are connected and where better connections are needed; and, identifying actionable opportunities or projects to improve rural-urban linkages in support of rural quality of life and economic opportunity.
To achieve these objectives, the projects relied on two main elements: background research and interviews. Background research included a review of available reports, plans and development initiatives for “evidence” of rural-urban linkages, e.g. how rural-urban linkages were addressed or treated. Date sources and resources included US Census Data, USDA Agricultural Census Data, Capital District Regional Planning Commission, Capital District Transportation Committee. Interviews were conducted with as many rural “hill town” residents as possible to collect feedback on local perspectives of rural-urban linkages. Additional interviews were conducted with representatives from various local and regional organizations and agencies that work in and/or serve the hill towns to learn how rural-urban linkages are perceived from a practitioner/policy perspective and what gaps in knowledge and practice exist. The project tested the 10 entry points to urban-rural linkages as a framework for assessing rural-urban linkages, i.e. inventorying and categorizing available data, information and resources.

**Results and impact**

The needs assessment has helped bring the concept of rural-urban linkages to the town, county and city. It has already resulted in improved awareness and communication between elected rural officials and regional development agencies. The Carey Institute’s Sustainable Communities Programme will host a meeting in early 2020 to present the result of the project, actionable next steps and to help solidify these new relationships, and the guiding principles are above the factors we prioritized as foundational to starting a conversation about equitable development.

Other expected results include: a published needs assessment with background research, survey results and next steps; digital rural-urban linkages case study library for continued learning and sharing; increased awareness among stakeholders of rural-urban connectivity end available resources; new or improved relationships between participating rural and urban stakeholders and an on-line community forum to support collaboration and relationship-building; and a tested process for assessing needs or opportunities for rural-urban linkages that can be replicated in other rural communities.

**Replicability and sustainability**

The needs assessment methodology can be replicated in any community or city-region as a preliminary, broad-based exploration of rural-urban linkages. It is aimed to test the approach in smaller, secondary cities. Additionally, the inventory and review of available resources for their treatment of rural-urban linkages is a tool that can be adapted and improved on as a baseline measure of rural-urban linkages.
This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions**: The project was designed to help start a discussion about rural-urban linkages in Albany County through local, bottom-up channels. The assessment deliberately explored urban-rural linkages from a rural perspective and engaged the perspectives of rural actors (residents, rural elected officials) and regional agencies (actors).

- **Integrated governance**: The needs assessment has helped to promote discussions on the need to strengthen urban-rural linkages at local (city) and regional levels (county). This has already resulted in improved communication between elected rural officials and regional development agencies. Also, the assessment seeks to provide evidence of the need to strengthen integration across spatial scales and across different levels of engagement and official decisions.

- **Functional and spatial systems-based approaches**: The assessment sought to identify spatial and functional linkages between Albany County’s rural townships and urban centres. This included natural, social and economic linkages experienced within the local community, and linkages resulting from the county’s role as a governing body and service provider to rural and urban communities.

- **Human rights based**: The project reflects the Sustainable Communities Programme (project lead) model, which calls for equitable distribution of, and access to, resources for rural communities as well as the inclusion and self-determination of rural communities in urban and regional development agendas and processes.

- **Participatory engagement**: Participation of local and regional stakeholders was fundamental to the project and as important as quantitative data collection in achieving the project goals. Interviews with local and regional actors about their understanding of rural-urban linkages were conducted. This information helped generate more insightful, locally grounded findings and recommendations.

- **Data driven and evidence based**: One purpose of the needs assessment was to compile existing data, information, examples and resources about rural-urban linkages in Albany County to identify gaps in data, Information and resources. Findings will be shared with stakeholders and will be used to guide next steps toward strengthening rural-urban linkages.
This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Governance, legislation and capacity development**: One deliverable of the project will be an ongoing, multi-format knowledge exchange, including an in-person meeting of rural and regional officials, leaders and agency representatives; and an online "community of practice" for professionals and practitioners to learn about and contribute their knowledge on rural-urban linkages.

- **Empower People and Communities**: The project sought to assess how county- and regional-level governance and development structures empower or deter the participation of rural communities in regional agendas and to identify opportunities for community-led rural-urban linkages without necessarily engaging regional bodies, for community based collaboration is an important space for developing rural-urban linkages in the current governance arrangements in New York State.

- **Knowledge/data management for dynamic spatial flows of people, products, services, resources and information**: The project was a first step to address data and knowledge gaps. Several sources of evidence on rural-urban linkages in Albany County were inventoried, including reports, plans, economic and demographic data. Interviews with local and regional actors were also conducted, and they offered knowledge about rural-urban relationships not addressed in written resources and data.

- **Territorial economic development and employment**: Broadly speaking, the project and the Sustainable Communities Programme’s (project lead) work on rural-urban linkages more generally, is focused on increasing equitable economic development and employment opportunities for the Albany Counties rural communities.

**FIGURE 38.** Looking east from the Helderberg Escarpment in Thacher Park with the city of Albany in the distance.
FIGURE 39. City of Albany skyline with the Helderberg Escarpment and Albany County hill towns in the distance.
17. CHILE, COLOMBIA AND MEXICO
Territorios & Bienestar Household Survey (T&BHS): Measuring micro-dynamics of rural-urban territorial development in three countries in Latin America

ABOUT THE CASE

Author: Chiara Cazzuffi, David López Moreno, Thibaut Plassot and Isidro Soloaga.

Location: Survey applied to 101 municipalities in Chile; 171 municipalities in Colombia; 110 municipalities in Mexico


Partner(s): International Development Research Centre (IDRC, Canada) – Funding partner. Universidad de los Andes (Colombia) – Research partner. Universidad Iberoamericana (Mexico) – Research partner.

Brief Description: The Territorios & Bienestar Household Survey (T&BHS) aims to collect, analyse and manage microdata on rural-urban territories. The survey was conducted between 2017 and 2018 in the rural-urban functional territories of three countries—Colombia, Chile and Mexico—collecting data from approximately 12,000 households. In addition to the typical modules of living standard surveys, the T&BHS includes innovative modules on self-employment, inter-generational mobility, aspirations, social capital and institutions. It also captured detailed information on the spatial distribution of household activities and livelihood strategies. The T&BHS data social and spatial micro-patterns of rural-urban households will provide important information for evidence-based territorial interventions in these countries.

It is an ongoing project. The survey was part of the research component of the Transforming Territories Program, started in 2016, and finalized in February 2019. Currently, the data is being processed.
Background and challenges

The Territorios & Bienestar ( Territories and Wellbeing) household survey (T&BHS) was intended to collect, analyse and manage microdata on rural-urban functional territories to support research and future interventions that will reinforce the urban-rural continuum and improve territorial cohesion.

The T&BHS filled data gaps and addressed the lack of representative household data on urban-rural linkages in intermediate areas – urban-rural functional territories in Latin America. Thus, it was to provide easily accessible data for researchers and policy makers in Latin America and elsewhere.

Solutions and implementation

The questionnaire was designed between January and July in 2017, as part of the Transforming Territories Programme funded by the International Development Research Centre (IDRC) and coordinated by the Latin American Centre for Rural Development (RIMISP). The T&BHS was formulated in collaboration the Universidad Iberoamericana (Mexico) and the Universidad de los Andes (Colombia) and consisted of an extensive questionnaire to capture representative information of urban-rural territories at aggregate levels. The questionnaire was then adapted to each country’s local knowledge and needs.

In addition to the typical living standards surveys, the T&BHS included innovative modules on self-employment, inter-generational mobility, aspirations, social capital and relationships with local and national institutions. It also captured detailed information on the spatial distribution of household activities and livelihood strategies. This detailed information included the geographical location of households, schools attended by household members, markets frequented to sell and access food, public goods and services, and workplace locations.

The T&BHS-Colombia also included a post-conflict module to learn about the reincorporation of former guerrilla fighters into society, which included collecting the perceptions that habitants of the territories prioritized by post-conflict interventions have about the conditions of ex-fighters and the benefits of demobilization. As well as of information on respondents’ victimization or the victimization of their acquaintances, information on the willingness to reconcile and share daily activities with demobilized people was collected. Thus, the T&BHS was pioneering research on labour, gender, social mobility, spatiality of consumption and services, and institutions in Latin American rural-urban territories and was a coordinated effort on applied research in rural-urban territories in three Latin America countries. Prior to survey fieldwork, the data collection method and instruments, including the informed consent form to be signed by participants, were evaluated and approved by the research ethics committees of RIMISP, the Universidad Iberoamericana, and of the Universidad de los Andes.
Results and impacts

The survey queried populations living in rural-urban functional territories in the three countries. It was conducted in 2018 and included a random sample of 12,000 households (almost 4,000 households per country). The rural-urban functional territories were defined as small and medium cities (between 15,000 and 350,000 inhabitants) that are functionally integrated with surrounding rural municipalities. The functional integration was determined by using satellite night lights data to identify conurbations and analysing data on commuting flows to identify which rural municipalities are functionally integrated to an urban core. These functional territories represent areas with high frequency of economic and social interactions, and with complex socio-spatial linkages between their inhabitants, organizations and companies. Rural-urban territories are home to about 70 million people in the three countries: 39 per cent of the population in Chile, 33 per cent in Colombia, and 38 per cent in Mexico, compared to only 5 per cent, 21 per cent and 14 per cent of the population living in isolated rural territories in the three countries, respectively.

The data collection, entry, validation and checking processes were completed in October 2018. Codebooks and description of data collection procedures were prepared in Spanish for each country. Since October 2018, each party has had access to, and freedom of use for research purposes, of the fully anonymized datasets of the three national surveys, where respondents’ name and georeferenced address have been removed.

RIMISP, the Territorial Dynamics and Wellbeing Research Group or the Universidad Iberoamericana, and the Economic Development Research Centre (CEDE) from the Universidad de los Andes agreed on a policy of access and use of the anonymized T&BHS to be applied to other parties, understood as researchers or groups not associated to these research teams.

The signed agreement stated that the data was to be available to other researchers on a restricted access basis until December 15th, 2019. Still, the data was not available to the general public. Currently, the data is being formatted in a user-friendly format for publication through the Open Data Initiative of the IDRC. The data will be available to researchers, policymakers, civil society, NGOs and grassroots organizations. The publication of the data will be accompanied by webinars, a data management platform and guidance in the process of making the data and metadata public, write data management plans, following the principles of open data and write a Data Descriptor to be published on an open-access journal. The dataset will be made public at the beginning of November 2020. Similarly, we expect to publish the Data Descriptor, with lessons learnt from the project and details about the datasets, by the end of 2020.

This data will help to do research and design policies that would benefit people living in rural-urban territories in Chile, Colombia and Mexico.

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13 Data Descriptors are a “new type of publication that provides detailed descriptions of research datasets, including the methods used to collect the data and technical analyses supporting the quality of the measurements”. Retrieved from: https://www.nature.com/sdata/publish/for-authors
The information provided by the survey on self-employment, inter-generational mobility, aspirations, social capital, institutions, and spatial distribution of household activities makes the T&BHS a unique and rich dataset, with multiple potential uses as evidence in the importance of URLs and a territorial approach in policy.

Data will be and is being actively promoted between researchers on the three countries, and their results will be promoted to the general public, NGOs, grassroots organizations and policymakers.

This initiative gives evidence to the URL-GP of:

- **Locally grounded interventions**: The basic survey was adapted in each country to account for the realities and needs of their territories. Particularly important was the inclusion of a module on post conflict in Colombia. Also, this data can help with the design of territorial- or locally-based policies and interventions.

- **Functional and spatial systems-based approaches**: Sampling was made considering rural-urban functional territories. Our data provides information representative of the population living in these territories at national level. Functional territories were constructed as clusters of municipalities with a high level of labour commuting between them.

- **Data driven and evidence based**: Our project provides disaggregated data about the micro-patterns of households living in rural-urban functional territories, their mobility and linkages with their municipality, their territory and other territories, and their socio-economic status and demographic information, to be used in research and policy design and evaluation of territorially based policies.

This initiative relates mostly to the following entry points of the Urban-Rural Linkages: Framework of Action:

- **Knowledge and data management for dynamic spatial flows of people, products, services, resources and information**: Our data closed a gap of knowledge about the spatial micro-dynamics of people living in the rural-urban middle in three Latin American countries. These data will be made public following the principles of open data, for use of researchers, NGOs and grassroots organizations and policymakers.
FIGURE 40. Agricultural worker in the chain value of Chile in Delicias (Chihuahua, Mexico)

FIGURE 41. Agricultural workers filtering the source material (Chili) in the chain value of Chile in Delicias (Chihuahua, Mexico).
About the Case Study Authors
Anna Soave. An architect by training, Anna is an urban development practitioner with an M.Sc. from the Development Planning Unit in University College London and more than 20 years of international experience in urban planning and the development of context-specific rehabilitation and upgrading strategies. Her work has mainly focused on supporting participatory urban transformations processes in low-income informal settlements and dilapidated historic neighbourhoods. Anna is currently leading for UN-Habitat Iraq in the implementation of a set of integrated urban recovery projects in conflict-affected cities.

Andrés Felipe Álvarez Grajales is the Deputy Director of Integrated Planning at AMVA. He is a lawyer with more than 25 years of professional experience in senior management of the State. He holds a master’s degree in Organization Management, specialist in Administrative Law, Senior Management of the State, Environmental Legislation. He has worked as General Manager of Public Companies of La Ceja E.S.P., Advisor to the Presidency of the National Savings Fund, and professor in the University of Public administration ESAP, among others.

Ang Jia Cong is an Associate Programme Officer at UN-Habitat and has experience in international issues of urban planning and management and good governance in humanitarian and post-conflict/crises contexts. She has been involved in the development and execution of several normative, implementation and capacity programmes regionally, with her recent work focused on strengthening the humanitarian-development nexus globally. She was also a contributor to discussions for Habitat III, and the New Urban Agenda through various global platforms.

Antenor Pereira, a Mozambican national, joined the ILO as National Project Coordinator in 2013. He has worked in different activities related to policy support, vocational training, employment creation and social dialogue. Previously, Antenor worked in the private sector, public companies and multinationals. He holds a degree in Economics from the University Eduardo Mondlane, Mozambique.

Assonsi Soma is a Doctor of Geography, teacher and researcher in the Department of Geography of the University Joseph Ki-Zerbo of Ouagadougou since December 2018 and Director of Spatial Studies and Land Use Planning at the Ministry of Economy, Finance and Development of Burkina Faso since 2016. His field of research extends to the following themes: spatial planning, territoriality of public actions, analysis of vulnerability, risks and resilience of territories, territorial engineering and marketing, and geographic information systems.

Aura Camila Giraldo Zuluaga works at the Subdirectorate of Cooperation and Agreement of the AMVA since 2016. She holds a Bachelor's Degree in Business Administration from Escuela de Administración, Finanzas e Instituto Tecnológico (EAFIT) in Medellín, Colombia and Specialist in Marketing and international relations from the same university. She has postgraduate studies in international and decentralized cooperation from the observatory of cooperation in Barcelona, governance of the metropolitan areas from the University of Catalonia, and public policies and resolution of environmental conflicts from East Anglia University, UK, among other knowledge in sustainable environmental development. She speaks several languages.
Arthur Nganga is a Kenyan national working as the General Manager (Commercial and Strategic Operations) at Uplands Premium Dairies and Foods Ltd. He joined the company in October 2014 at its inception managing the milk procurement department and mobilizing and encouraging farmers to take up dairy farming. He has a degree in Education Science (physics/chemistry) from Kenyatta University and has taught in Kenyan secondary schools in different parts of the country for 18 years.

Bedoshrutí Sadhukan has a Master’s Degree in Environmental Management and leads the Sustainability Team in ICLEI South Asia (Local Governments for Sustainability). She has more than 10 years’ experience in the field of environment management and sustainability, especially environmental justice, environmental law, environmental management systems, climate resilience, and water and waste management, and she conducts training and capacity building for local governments on these issues. She manages several long-term international projects on environmental management systems for local governments, water and sanitation, and solid waste management.

Bryonny Goodwin-Hawkins gained her Ph.D. from the University of Melbourne in 2014. She is an interdisciplinary researcher working towards inclusive futures for rural people and places. Her work investigates how historic and contemporary policies and practices help (or hinder) thriving regions, and experiments with new models to re-enable those “left behind”. Bryonny currently contributes to the Horizon 2020 projects IMAJINE and ROBUST, and is affiliated to the Wales Institute of Social and Economic Research and Data (WISERD).

Carey Ives, B.Sc. (Hons), is a Member of the Institute of Economic Development (MIED). Policy Officer: Strategic Planning, Performance & Change, Gloucestershire County Council. Carey has more than 25 years of local government experience in the delivery of partnership initiatives to support economic growth across the county of Gloucestershire. Programmes of work have included projects based in both rural and urban settings, for example projects that deliver infrastructure improvements, support training provision and, provide support and advice to businesses. In recent years, projects have been delivered with funding from the United Kingdom Government and working closely with the Gloucestershire Local Enterprise Partnership.

Chiara Cazzuffi is Assistant Professor at the Centre for Economics and Social Policy at Universidad Mayor, previously working on Rimisp – Latin American Centre for Rural Development. She holds a Ph.D. in Economics from the University of Sussex, United Kingdom. Her research focuses on rural development, spatial inequality, migration and psychosocial wellbeing. During her tenure at Rimisp, she was the research coordinator of the collaborative Transforming Territories Programme and the Territorios & Bienestar Household Survey.
Daniel Keech is a Senior Research Fellow at the Countryside and Community Research Institute at the University of Gloucestershire (UoG). He contributes to international research projects on urban and regional food, urban rural-relations and European food cultures. He also contributes to research in environmental humanities. Dan is a visiting lecturer at Masaryk University Brno in the Czech Republic, and at Cardiff University. He teaches at the UoG in modules on sustainability, landscape architecture and postgraduate research methods. Dan is a Fellow of the Royal Geographical Society-Institute of British Geographers, and a Fellow of the Higher Education Academy.

David López Moreno is researcher at Rimisp – Latin American Centre for Rural Development. He holds an M.Sc. in Economic Analysis from the University of Chile. He has worked at Rimisp since 2015, participating in research on the effect of local characteristics on psychosocial wellbeing in Mexico, ethnic wage gaps and rural development in Chile, and rural transformations in Latin America. Since 2019, he has been academic coordinator of the joint Rimisp-Flacso Diploma on Territorial Cohesion for Development.

Edmundo Werna has worked for over 35 years on urban development with attention to municipal management, local economy, livelihoods, health and housing. He joined the International Labour Organization (ILO) in 2004. He was the ILO focal point throughout the preparations for Habitat III, during the summit itself, and afterwards in the United Nations discussions on the New Urban Agenda. Prior to this he worked at the United Nations Development Programme and also consulted for international organizations. He has a Ph.D. from the University of London. M.Phil from the Institute of Development Studies, Sussex, and a Bachelor of Arts Degree from the University of Minas Gerais (Brazil).

Egidio Simbine joined the International Labour Organization in July 2017 as National Project Coordinator for MozTrabalha, an employment creation initiative. He works in different portfolios: Women’s Economic Empowerment, Labour Market Policies, and Monitoring and Results Management. Previously, Egidio worked for more than seven years at the Ministry of Youth and Sport where he coordinated the reform and implementation of various national programmes to support young women and men. He holds a Master’s Degree in Public Policies and Management from the University of Melbourne.

Emani Kumar is the Executive Director of ICLEI South Asia and Deputy Secretary General of ICLEI. With degrees in environmental management, environmental planning and civil engineering, Emani has more than 20 years of professional experience in climate change policy and planning, environmental sustainability, local governance, energy, social accountability, systems management and auditing. Apart from overseeing the organization’s strategic development, he coordinates various projects and research work supported by donor agencies, United Nations agencies and national governments.
Felix Knopf (Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH). With a Master of Urban and Regional planning as a base, Mr Felix Knopf has worked in a series of academic and professional assignments in Europe, Latin America and India. He is skilled in climate oriented urban development, urban land use planning, renewable energies and energy efficiency. In his professional career, Felix has worked mainly with urban local bodies, supporting them in both strategical and technical development of the city.

Gabriel Voisin-Fradin has been working for national and local governments in France and abroad in the fields of local economic development and international cooperation for 20 years. Currently, he is project manager for international affairs at Grenoble Alpes Métropole and vice-president of the French professional network ARRICO. In this framework, he steers, organizes or takes part in international partnerships, exchanges, delegations hosting and events. He thus supports various services and local stakeholders in their internationalization process.

Igor Felice joined the International Labour Organization as Chief Technical Adviser in July 2011. He has worked on different projects related to employment creation, women’s economic empowerment and green jobs. He was previously Country Representative at the International Trade Union in Mozambique and Pakistan, and labour expert in Eritrea. Igor began his career in the Balkans, as labour and social expert for Italian Cooperation projects. He holds the European Master in Labour Sciences from the University of Florence.

Isidro Soloaga is professor at the Universidad Iberoamericana’s Economics Department in Mexico City. He is Director of IBERO’s SobreMexico Economic Journal and since 2016 has also been the head of the Interdisciplinary Research Chair of Territorial Dynamics and Wellbeing Programme. He has a Ph.D in Agricultural and Resources Economics from the University of Maryland. Previously, he worked for the World Bank and for the InterAmerican Development Bank. His main research areas include applied econometrics, poverty, income distribution, migration and regional development.

Jackson Kago, a Kenyan national, works as a chairman and lecturer in the department of Spatial Planning and Urban Management, School of Architecture and Built Environment at Kenyatta University. He is an urban researcher and has researched widely, including with the Regional & Metropolitan Planning Unit (RMPU), Urban Planning and Design Branch at UN-Habitat, working on the thematic areas of urban-rural linkages, systems of cities, metropolitan and regional planning.

Janene Yazzie is an entrepreneur, community organizer, Indigenous rights and human rights advocate. She has worked on climate change, water security, food security, broadband development, energy development, and nation building with Indigenous communities for the past 11 years. She is programme manager of Sustainable Community Development with the International Indian Treaty Council (IITC). She represents IITC as the co-convener of the Indigenous Peoples Major Group (IPMG) to the United Nations High-Level Political Forum on the 2030 Sustainable Development Goals.
Juan David Palacio Cardona is the current director of the Metropolitan Area of Valle de Aburrá. He is a lawyer from the Eafit University in Medellin; with specializations in Government and Management of Regional and Municipal Development from the Catholic University of Colombia; and in Labor Law and Industrial Relations from the Universidad Externado. He served as Secretary General of the Council of Medellín and has been an external legal advisor to different companies, on labor, business and transit and transportation law issues.

Lassané Yameogo is a geographer, specializing in spatial planification. He worked as urban geographer in the urban land-use and planning office at the Burkina Faso Ministry of Town Planning and Housing, and is now an assistant professor at University Joseph Ki-Zerbo in Burkina Faso. His research focuses on regional analysis and planification, territorial development and cross-border cooperation. He participates in many consultancies, such as Bagrepolo’s Master Plan, the Greater Ouaga Master Plan and the national border strategies of Burkina Faso. He has published numerous papers on various topics.

Lilian Vargas, after graduating in Human Sciences and Territorial Development Engineering, devoted most of her career to the definition and implementation of territorial policies concerning the agriculture and food field, the development of forestry and wood chain and the protection and management of natural sites. Currently she is in charge of the Agriculture, Forest, Biodiversity, Mountain Department of Grenoble-Alpes Métropole, she coordinates the Inter Territorial Food Project of the Grenoble region in the French Alps.

Mark Stone is an associate professor at the University of New Mexico (UNM) and director of the UNM Resilience Institute. His research and education programmes focus on advancing understanding of the resilience of watersheds, rivers and floodplains as complex socio-ecological systems. Mark has worked extensively in the area of environmental flows to maintain ecological and social functions for rivers and floodplains.

Michaela Jones is a transdisciplinary researcher and environmental engineer. Her research has focused on socioecological interactions and systems analysis at the watershed scale in the south-western United States as well as in Latin and South America. She has worked to promote integration of science into policy and practice through roles in local government, NGOs, academia and consulting firms.

Pablo Marcelo Maturana Guzmán is currently Deputy Director of international cooperation and agreements at the AMVA. He is a Business Administrator of the EAFIT University, with an emphasis on economic policy and specialist in political studies from the same university. He has served as Deputy Director of Local and International Relations, Deputy Director of the Projection Area of the city - Region and Deputy Director of the International Cooperation Area, in the Agency for cooperation and investment of Medellín (ACI). He has also experience as professor for international relation and cooperation.
Rebecca Platel is the Sustainable Communities Programme Manager at the Carey Institute for Global Good in Rensselaerville, New York in the United States, where she also resides. She holds a B.A. in Urban Studies & Planning from the State University of New York at Albany and a Master’s Degree in Urban Affairs from Hunter College.

Risper Talai is an urban planner currently working with UN-Habitat and draws on her experience working for both the private and public sector in Kenya. She combines her training in urban and regional planning and urban management to address challenges in planning and development of sustainable cities to provide durable solutions that reflect both resilient community and environmental stewardship values. Her planning interest lies in strengthening intervention surrounding land management, land-use policy, regeneration and community engagement in planning.

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