

Localising the 2030 Agenda through Integrated Urban Development

Five successful examples from the
German Development Cooperation
Case Stories

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Content

Preface	5
Introduction	6
Cases	
Puebla, Mexico	10
Naga City, Philippines	14
Lviv to Zhytomyr, Ukraine	18
Tamil Nadu, India	22
Multiple cities, Jordan	26

Preface

Urbanisation is a megatrend, which has an influential and significant effect on the world economy and society, on people's quality of life, on the future of democracy, as well as on global consumption of resources and energy – and thus on the future of the Earth as a whole. According to predictions, up to 70 percent of the global population will live in cities by 2050. Future urban growth will almost exclusively take place in developing countries; especially medium-size cities will grow rapidly. This growth comes with a host of challenges and opportunities, such as considering climate change in urban expansion and construction, managing resources sustainably, providing adequate shelter and decent job opportunities for all, exploring options for ICT-based solutions and ensuring food security for a growing urban population. With this in mind, the 2030 Agenda for Sustainable Development states goals and targets related to sustainable cities and human settlements (SDG 11). Moreover, cities are turning out to be key actors for the implementation of two thirds of the SDGs, thereby transforming local governments and communities into crucial shapers of our global future.

Urbanisation is a process that goes far beyond the cities themselves. Spatial and functional interrelations between cities, settlements and their surrounding areas are increasing. Integrated territorial development approaches contribute to a paradigm shift towards urban and regional planning, financing and implementation across sectors, stakeholders, administrative borders and governmental level. The 2030 Agenda and the New Urban Agenda acknowledge the interdependencies between cities and regions as key potentials for inclusive and sustainable development. Furthermore, they call for integration, cooperation, coordination and dialogue across different levels of government, functional areas and relevant stakeholders.

The Sector Project “Sustainable Development of Metropolitan Regions”, implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on behalf of the German Federal Ministry for Economic Co-operation and Development (BMZ) from 2013 until 2018, has developed action-oriented advisory services and new concepts on the role of metropolitan regions as drivers for sustainable development. The focus has been on diverse social, economic and ecological challenges within urban areas, such as metropolitan governance, urban-rural linkages including City-Region Food Systems, urban resources man-

agement and climate change as well as digitalisation and regional economic development.

Under the new title “Integrated Implementation of the 2030 Agenda in Cities and City-Regions”, the Sector Project promotes and implements action-oriented model projects with cities and city-regions in collaboration with the programmes of the German Development Cooperation in partner countries worldwide.

This collection of case stories aims at showing how integrated approaches for sustainable urban development contribute to a comprehensive implementation of the 2030 Agenda on local level. It provides good practices on how the 2030 Agenda can be translated into concrete policies and actions. Adapting an integrated approach ensures the inclusion of regions, sectors, stakeholders as well as the various levels of government. Thus, integrated approaches foster balanced development across territories within ecological boundaries while promoting social cohesion.

This collection forms part of the publication series “Integrated Implementation of the 2030 Agenda in Cities and City-Regions”, which continues the previous series of publications on sustainable metropolitan regions. It provides conceptual guidance and recommendations for hands-on approaches for development organisations as well as partner and cities in the field of sustainable development of cities and city-regions.

We encourage a critical and fruitful discussion about the publication by policy-makers, practitioners and academia!

Carmen Vogt

Head of programme “Integrated Implementation of the 2030 Agenda in Cities and City-Regions”

Introduction

By endorsing the 2030 Agenda for Sustainable Development and its 17 Goals (SDGs) in 2015, the world community reaffirmed its commitment to balancing the social, economic and ecological dimensions of human development. The Agenda aims at sustained and inclusive economic growth, social inclusion, and environmental protection, fostering peaceful, just, and inclusive societies through a new global partnership. The 17 SDGs address the global challenges we face. In contrast to the Millennium Development Goals (2000-2015) the peculiarity of the SDGs is that they are deeply interconnected. Consequently, their “Interconnectedness and Indivisibility” are enshrined in the Agenda as one of its five core principles (see textbox 1). In the German Development Cooperation this principle is operationalised through “integrated approaches”, that take into consideration social, economic, environmental and spatial dimensions at the same time. Every development intervention needs to take into account the social, economic, and environmental consequences it generates in all four dimensions, and lead to conscious choices in terms of the trade-offs, synergies, and spin offs it creates. However:

“The greatest challenge is that despite the global agendas and their increased public awareness, there is a lack of scope for action and integrated approaches are not yet seen and strengthened at the political level.”

said Dr. Diana Reckien of the University of Twente at the October Forum 2018 of the Sector Project CityRegions2030.

It is in the cities where the strong interlinkages between the SDGs are most pronounced. Home to the majority of humans, situated often in the most fertile environments, consuming large amounts of resources and producing tremendous volumes of waste and emissions, while offering great potentials for economic activities as well as political and social interactions and services. It becomes evident how many human interactions take place in cities and which crucial role urbanisation plays for sustainable development of the whole globe. Crossing the urban divide in 2007, three-quarters of the world’s population will live in urban

areas by 2050. In addition to demographic growth, urban regions are dynamic centres of economic activities and vast resource flows. Today, urban areas cover only 2 percent of the total land, but make up for around 80 percent of the global GDP. At the same time, they consume over 60 percent of global energy, produce 70 percent of global waste and emit 70 percent of all greenhouse gas emissions.

Cities and city-regions are growing at a fast pace and increasingly cross their political and administrative borders. Migratory and commuter movements, flows of capital, resources and commodities, soil, air, and water pollution are affecting more and more growing urban areas and their rural surroundings – city-regions emerge. Furthermore, the extent of urban demands coupled with environmental degeneration as well as changing climate leads into an urgent need for new or improved infrastructures and services. Governmental institutions, especially on local level, face challenges to

1. Provide a growing urban population with access to basic services and vital resources;
2. Sustain continuous economic development;
3. Manage resources within the planetary boundaries while addressing the challenges of climate change.

However, prevailing urban governance and management practices, in which resources are managed in isolation by their respective sectoral departments (e.g. water, energy, environment) have led to inefficient infrastructure systems and land use patterns at city and city-regional levels leaving economies of scale unused and wasting natural resources. Urban actors recognise more than ever that the way forward lies in an integrated approach to urban development, natural resource management and balanced socio-economic development in order to govern urban-rural linkages and sectoral inter-dependencies in a sustainable way.

Action-oriented studies show that the 2030 Agenda will only be successful if implemented at the urban level and together with urban actors. In fact, cities – as actors and places – are crucial to achieve two thirds of all SDG targets. This insight and the principle of interconnectedness underpin the urgency to follow integrated approaches for sustainable urban development to break down barriers between sectors and stakeholders, and between institutions and levels of government.

“In order to take advantage of the full potential of cities and city-regions, we need integrated approaches, as synergies can only be consolidated through cross-sectoral and integrated implementation”,

also confirmed Prof. Knieling of the HafenCity University Hamburg during the October Forum 2018 of the Sector Project CityRegions2030.

The principles of the 2030 Agenda for Sustainable Development

Universality: The 2030 Agenda is universal in scope and commits all countries to contribute towards a comprehensive effort for sustainable development. The Agenda is applicable in all countries, in all contexts, and at all times.

Multi-Stakeholder Partnerships / Shared responsibility: The 2030 Agenda calls for establishing multi-stakeholder partnerships for mobilising and sharing knowledge, expertise, technology and financial resources, to support the achievement of SDGs.

Interconnectedness and Indivisibility: 17 SDGs of the 2030 Agenda are interconnected and indivisible. It is crucial that all entities responsible for the implementation of SDGs treat them in their entirety instead of approaching them individually.

Inclusiveness: The 2030 Agenda calls for the participation of all segments of society – irrespective of their race, gender, ethnicity, and identity – to contribute to its implementation.

Leave no one behind: The focus is on particularly disadvantaged population groups, since these are often the hardest hit by global challenges.

About this Publication

The publication at hand describes five development projects implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Ministry for Economic Development and Cooperation (BMZ). These projects applied an integrated urban development approach (as described in textbox 2) that led to comprehensive and sustainable results in urban areas thereby contributing to the implementation of the 2030 Agenda.

The cases show how to design integrated solutions and what changes in governance structures are necessary to develop and implement solutions for a sustainable use of natural and spatial resources while enhancing economic prosperity and social inclusion.

Mexico

The restoration project of the Atoyac River in Puebla highlights how the principles of interconnectedness and shared responsibility positively influence environmental, social and economic conditions of a whole city-region. The city administration joint forces with its neighbouring municipalities, as upstream activities directly influence the environment downstream. The local and international private sector as well as civil society participated in the project design and implementation to ensure inclusive and long-lasting results, also in line with the 2030 Agenda principles of multi-stakeholder partnerships and leave no one behind.

Regional project Asia

The Nexus project promotes integrated and resource-efficient solutions by strengthening inter-sectoral and inter-institutional cooperation in twelve cities across seven Asian countries. The regional exchange and training workshops foster the principles of partnerships and universality. The housing project in Naga City constructed low-cost, typhoon-resilient houses. Academia, CSO and experts from various sectors participated in the planning process to develop a systemic design, which includes further aspects of energy, waste and mobility.

Ukraine

Ukrainian cities develop Integrated Urban Development Concepts (IUDC) through extensive participatory processes with their citizen based on strategies of inter-sectoral working groups following the principles of shared responsibility and inclusiveness. These local development plans consider their rural surroundings and are aligned with national strategies, contributing to international agendas. By the inter-sectoral approach of Integrated cross-sectoral urban development plan also ensure the interconnectedness of the SDGs

Jordan

In Jordan, urban green infrastructure projects combined with local economic development strategies improve urban environments and living conditions. A special focus is set on the integration of migrants and other disadvantaged groups to strengthen social cohesion at the same time. The project shows how to integrate transitional aid with integrated urban development approaches so that no one is left behind.

India

The multi-stakeholder and inter-sectoral policy amendment for land use management and spatial planning enabled the elaboration of integrated development plans on regional and local level, which are in line with the 2030 Agenda and the New Urban Agenda. This alignment strengthens the continuation of these strategies over short-term political priorities – hence, improving accountability of administrations. By elaborating regional development plans balanced development throughout the whole territory can be ensured, while using resources more efficiently and sustainably.

Following this integrated urban development approach, the projects address the principles of the 2030 Agenda. Integrated urban development serves SDG 11 “Make cities and human settlements inclusive, safe, resilient and sustainable”. Likewise, integrated urban development recognises the interlinkages and interconnected nature of the SDGs – hence to implement the total number of 17 SDGs in an integrated manner throughout all governmental levels in order to mitigate wasteful trade-offs and to make effective use of limited resources and capacities for their implementation.

In addition, the holistic approach of integrated urban development allows for pursuing synergies with development goals set by a variety of international agendas, beyond the 2030 Agenda, including the Paris Agreement and the New Urban Agenda.

Four dimensions of the integrated urban development approach



Integration of a variety of strategic urban sectors and services, for instance coupling municipal solid waste management with climate-friendly energy production, or applying a holistic approach to the development of solutions at the interface of energy, mobility, architecture and ICT.



Integration of relevant actors and stakeholders, i.e. supporting not only citizen participation and involvement of civil society organisations, but also bringing together different authorities, experts of different disciplines, actors from the private sector or integrating research institutions into strategic collaborations.



Integration of different spatial areas, i.e. establishing cooperation among neighbouring municipalities, strengthening linkages between urban, peri-urban and rural areas, and creating governance structures at a metropolitan level for intermunicipal coordination and joint delivery of public services such as public transport services.



Integration of different government levels for the implementation of measures to align local activities, strategies and policies with the ones at the regional and national level, to pursue the dialogue between different government levels in both directions, and finally, to transfer experiences and good practices between government levels for replication and integration in respective policies and plans.



Implemented Key Measures

- Integrated and foresighted environmental urban planning
- Integrated multi-stakeholder approach



Tools & Practices

- Capacity works
- Trainings
- Establishment of an independent committee
- Integrated Urban Water Management (IWM)
- Eco-friendly and resource-efficient innovation Initiative

Success Factors

- Joint concrete implementation plan
- Strong civil society mobilisation
- Political backing on multiple governmental levels
- Integration of a variety of strategic urban and environmental sectors
- Integration of a variety of relevant actors and stakeholders
- Integration of different spatial areas
- Integration of different government levels

An Integrated Multi-stakeholder Approach for a 'Living River'

Context and challenges

Nearly 80 percent of the Mexican population lives in cities. Increasing urbanisation combined with economic development have created new challenges for the country. One of the most severe challenges being the resulting negative environmental impact.

The Puebla metropolitan region alone contributes 3.4 percent to the Mexican GDP and is one of Mexico's most important economic zones. Thirty percent of the production companies in the metropolitan region are located alongside the Atoyac River. More than two millions inhabitants, across sixty-nine municipalities in the two states of Puebla and Tlaxcala, live in its vicinity. Due to increasing urbanisation, industry and agriculture, the Atoyac River is among the most polluted rivers in Mexico. The dumping of untreated municipal discharges and highly contaminated industrial wastewater has left the river in a disastrous state. As the surrounding rural population is directly dependent on the Atoyac River and its condition directly affects 40 percent of the total population of Puebla and 80 percent of its economic activity, this presents a severe challenge to the region. The high level of pollution has not only left the river in an environmentally critical condition but has caused severe health issues among the population. The severe pollution of the river's waters, the effects

on public health and the scarcity of water in large areas of the region thereby present key challenges. Disintegrated sectoral planning has resulted in insufficient instruments and capacities for pollution monitoring and control, inappropriate land use and management, and ineffective water treatment systems. Therefore, it has significantly contributed to the severe contamination of the river. While the condition of the river has led to recovery attempts in the past, these efforts were limited to projects based on basic individual water treatment plants and lacked a coordinated strategy. As a result, these isolated efforts, while carrying a high cost, failed to translate into long-term initiatives.

Methodological approach

Increased pressure on the three levels of government by civil society has led to a renewed recovery effort with the objective of achieving a 'living river for 2031' when Puebla celebrates its 500th anniversary. On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), the programme *Urban-industrial Environmental Management* aims at improving environmental management in Mexico's cities and businesses. In this vein, a specific project in Puebla was established to ensure access to uncontaminated water, the reduction



of diseases caused by pollution, the recovery of terrestrial and aquatic biodiversity, access to a system of green public spaces and promoting the development of the region in line with the SDGs. The initiative embraces the 2030 Agenda in recognising that only an integrated multi-stakeholder, environmental, urban planning approach can address these challenges and contribute towards the fulfilment of the SDGs.

Integration of different levels of government

The project fosters sustainable development in the Puebla-Tlaxcala Metropolitan Area through cross-sectoral, eco-friendly and

resource-efficient innovations. In line with a newly established eco-friendly and resource-efficient innovations initiative, came the introduction of environmental criteria for procurement of the municipality of Puebla. The result was the prohibition of single use plastic and the switch to biodegradable detergents to lower the environmental impact. On top of the social and environmental impact, this could generate an annual saving of up to \$ 10 million Mexican Pesos (ca. 0.5 mil EUR) for the municipality of Puebla. Beside the changes achieved in the public sector, the inclusion of the private sector is another key element for the sustainable development of the region.

Integration of stakeholders

The ‘Vive Atoyac! Committee’ was set up, to enable the cooperation of the diverse stakeholders in developing a joint strategy with concrete steps under a joint steering structure. The independent Committee consists of officials, experts, academics and members of organised civil society and includes the three tiers of government, citizen organisations, business organisations, educational institutions and international organisations. It includes a consultative council, a technical council, an advisory council and an executive branch. The intersectional composition of the committee allows inter-sectoral cooperation beyond Puebla’s administrative boundaries. Its main purpose has been the formulation of a joint Masterplan for the recovery and prevention of further pollution of the Atoyac River supported by the German Development Cooperation. Based on previously conducted studies, the Committee developed concrete steps for a river recovery initiative. These measures built on the knowledge gained through the German experience of river sanitation, such as the Elbe River recovery provided by the cooperation with the city of Hamburg.

Civil society did not only spark the recovery effort, but its inclusion in the project also ensures its continuity throughout political change and beyond the end of the programme. Civil Society plays a key role in raising awareness, improving transparency regarding the implementation of measures and exerting pressure on those responsible. Meanwhile, the universities of Puebla like the Tec of Monterrey, Universidad Iberoamericana de Puebla or the Universidad Popular del Estado de Puebla develop technological solutions for water treatment and monitoring, promote forums, organise intersectional working groups, issue specialized technical opinions and encourage voluntary work among their students.

The Masterplan includes the promotion of an eco-innovation initiative which seeks to incentivise and strengthen the capacities of companies in their transformation towards sustainability. This initiative is guided by three fundamental principles: achieving company profitability, improving employees’ working conditions and protecting the environment. Following these principles, the capacities of small and medium-sized enterprises (SME) in Puebla are built up to include environmental aspects in their production processes. As part of this initiative, a partnership with the German company Evonik enabled the evaluation of an innovative and viable industrial wastewater treatment alternative.

Moreover, through the cooperation of the German Institute of Water and Sanitation (DWA), more than 100 wastewater treatment plant operators received specialised trainings in waste-

water management. The cooperation with the private sector will effectively reduce the pollution caused by the discharge of municipal and industrial wastewater through improved wastewater treatment by wastewater treatment plants and SME reducing their environmental impacts.

Integration of spaces and sectors

As the River stretches not only across the metropolitan region, but across sixty-nine municipalities and two states, the project requires inter-municipal cooperation. Addressing the challenge requires a revised integrated urban environmental management approach that stretches beyond administrative boundaries and incorporates the entire metropolitan region. Technical assistance provided by PGAUI II aided in the revision of the legal and technical framework for sanitation, the implementation of Integrated Urban Water Management (IWM), decentralised wastewater management systems in urban and peri-urban areas, and the definition of compliance indicators for the measures prescribed in the Masterplan. These improved inter-sectoral management practices incentivise sustainable consumption, production and services. Given that an inefficient disintegrated ‘silo’ approach let the problem arise, underlines the importance of implementing IWM systems.

Results

The project has set the framework for the river recovery, through the establishment of a long-term integrated river recovery plan, monitored by an independent body. The independent body includes both civil society and the other various stakeholders relevant to the recovery of the Atoyac River. The revised environmental urban management practices assure the integration of different spatial areas and governmental levels. This is vital to the effective implementation of the river recovery initiative, given that the problem affects the entire upper Atoyac River Basin and therefore goes beyond the administrative boundaries of the City of Puebla. The trainings for WWTP personnel increased the efficiency of water treatment plants and thereby reduces the discharge of polluted water into the river. Furthermore, more environmentally friendly production methods by SME’s were promoted. This proves the added value of international knowledge exchange and private sector inclusion. The involvement of the different levels of government, the private sector and civil society is not only essential to the progress made so far, but also ensures its further continuity throughout political change and the end of the PGAUI II programme.

Success factors

To solve such complex challenges, all relevant stakeholders must understand the problem as a shared responsibility which can only be solved through cooperation and based on an integrated approach. A local consultant provided a continuous analysis on the stakeholders that are instrumental to the recovery effort. This allowed for their integration into the different measures. River recovery is a long-term project that requires long-term commit-

ment of all stakeholders involved and carries a high cost. Therefore, political will on behalf of the three tiers of government – national, regional, local- is vital, as well as awareness among the population and the business sector. Here the high pressure exerted on the authorities and the private sector by a strong civil society as well as pressure exerted by the United Nations (UN) has played and continues to play a central role. Alongside continued pressure, establishing a concrete and integrated plan independent from political parties ensures the commitment to and sustainability of the implemented measures. Next to the pressures exerted by civil society, the engagement of various levels of government ensures that the project is embedded within different governmental efforts and continues throughout political changes. The presence of at least one highly committed change agent plays another vital role in the implementation and sustainability of the project. The commercial importance of the region for German investment including the location of German industries in the region further aided in the provision of technical and expertise trainings and knowledge transfer.

Transferability

Just as the project benefitted from the knowledge gained through previous recovery initiatives in Germany and other countries, it now serves as a reference point for other efforts in Mexico and abroad. Municipalities and other government agencies are sharing the successful strategies on a national level. Furthermore, strategies and experiences from the project are integrated into new programs by the government at state and municipal level and the federal Secretariat of Environment and Natural Resources (SEMARNAT). The integrated master plan for sanitation of the river of the municipality of Puebla has already inspired river and lake recovery projects in Mexico and sanitation projects in Bolivia. These projects in turn generate further knowledge and contribute to the formation of a new network of practitioners in Mexico and across Latin America, whose purpose is to achieve the joint participation of civil society and governments in urban river recovery efforts.

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Implemented Key Measures

- Development of the “Climate Change Resilient Pilot House” (CCRPH), construction of the climate change resilient housing units
- Construction of a new landfill
- Comprehensive land use plan for the city of Naga 2016–30
- Draft 30 Year Sustainable Urban Development Plan



Tools & Practices

- Design thinking workshops
- ‘Urban Nexus’ trainings
- Technical advisory service
- Deployment of a development advisor

Success Factors

- Integration of a variety of strategic urbansectors
- Integration of a variety of relevant actors and stakeholders in project development
- Cooperation with academia (BISCAST)
- Implementation of concrete physical projects (housing) – seeing is believing
- Housing schemes as “ideal” nexus approach requiring cross sectorial cooperation
- Implementing projects reducing costs for infrastructure due to cross sectorial systems’ approach
- Integration of a variety of spaces and regions in urban planning

A Systemic Approach to Land Use Management, Housing, and Energy

Context and challenges

The Asia-Pacific region is experiencing extremely rapid urbanisation, its urban population increase by 44 million per year placing a severe strain on urban supply systems and utilities. Managing this tremendous urbanisation in an environmentally friendly and sustainable manner is one of the most critical challenges facing the Asia-Pacific region today. Balancing urban development and natural resource management is no easy task as energy, water and food are essential for the rapid urban development – while facing severe strain under the growing demand. Municipal management and planning in Asian cities follows a sectoral rather than an integrated approach. As a result, municipalities miss out on the synergy potentials from the interrelationship between the three ‘nexus’ sectors water, energy and food security. Meeting growing development needs in the long term and in line with the 2030 Agenda for Sustainable Development therefore requires an integrated urban development approach that recognises the imperative for integrated resource management.

Methodological approach

On behalf of the German Federal Ministry of Economic Development and Cooperation (BMZ) the programme *Integrated*

Resource Management in Asian Cities: the Urban Nexus aims at enhancing integrated resource management for improving living conditions of citizens, while securing environment and biodiversity and increasing efficiencies in urban development processes. In cooperation with the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP), the ‘Urban Nexus’ programme promotes a circular economy approach where resources such as water, food, and energy are used and reused more efficiently and effectively by integrating water supply and sanitation systems, energy security and efficiency, land use, spatial planning and food security. The regional programme has more than 50 practically oriented ‘Urban Nexus’ pilot projects in twelve cities across seven countries: China, India, Indonesia, Mongolia, the Philippines, Thailand and Viet Nam.

One of the partner cities of the programme is Naga City in the Central Philippines. Naga is a rapidly growing city of currently about 200.000 residents. On top of the mounting resource demands due to its rapid growth, Naga City faces typhoons, earthquakes, flooding, shrinking agricultural yield and energy shortages, which places additional strain on its already insufficient urban infrastructure. Within the context of the Nexus programme, affordable resilient housing, innovative and environmentally friendly solid waste treatment and wastewater management linked to energy production and agriculture have been identified as the main issues. Given Naga City’s increasing degree

of water resources and soil contamination with coliform bacteria, wastewater-to-energy projects are a priority. As part of the 'Urban Nexus' programme, the city has thus planned a septage project, the piloting of a decentralised wastewater-to-energy facility in a newly constructed housing project in Barangay Del Rosario and a new sanitary landfill.

Integration of different levels of government

Together with the BICOL State College of Applied Sciences and Technology (BISCAST), Naga City is working on its 30-year Sustainable Urban Development Plan as part of the city's efforts to localise the national development plan AmBisyon Natin 2040 of the National Economic and Development Authority (NEDA). 'Urban Nexus' training workshops enhanced the cooperation and coordination of the relevant national governmental entities responsible for the implementation of the 2030 Agenda. This has enabled a multilevel approach encompassing stakeholders on both the national and the local level as well as a cooperation between governmental, private and the civil sector.

Integration of stakeholders

"Design Thinking" workshops supported by the Urban Nexus programme in cooperation with ICLEI Southeast Asia Secretariat allowed for the input of knowledge, interest and needs of national government agencies (NGAs), civil society organisations (CSO), the private sector, and donors on the formulation of Naga City's 30-year Sustainable Urban Development Plan. Meanwhile, local workshops and consultations were facilitated by the formation of a local 'Urban Nexus Task Force' for coordinating the issues and needs of its planned projects. The construction of typhoon-resilient low-cost housing for 200 low-income Naga city government officials on the Del Rosario development site furthermore laid the foundation for a close partnership between the city government and BISCAST.

Integration of sectors

The planning and implementation of cost-efficient housing requires a cross-sectoral approach and is therefore implemented by the city in collaboration with different sector departments, notably the ones responsible for engineering, pro poor development, roads, metropolitan water management and the electricity utility. This inter-sectoral cooperation enabled the successful implementation of the housing, septage and waste-to-energy projects. Beside the integration of different sectors, the collaboration with academic and training institutions played a significant role. Architecture students aided by 'Urban Nexus' experts designed the plans for a "Climate Change Resilient Pilot House" (CCRPH) housing unit erected at the BISCAST Campus. The CCRPH was awarded to be the second greenest building in the Philippines, it received the Accreditation of Innovative Technologies for Housing (AITECH) by the Housing and Urban Development Coordination Council and it received the EDGE

Certificate saving 61 percent energy, 95 percent water and 79 percent less embodied energy in material in comparison to conventional housing. This housing design – being the main meeting point during the typhoon that hit Naga City in December 2016 in order to load mobiles when the energy and water supply system was down for some days - provided the template for new resilient and affordable housing schemes in the Philippines saving up to 40 percent of costs in comparison to conventional housing. Moreover, the capacity building provided by the 'Urban Nexus' training ensured that the 'Comprehensive Land Use Plan for the City of Naga 2016–2030' and the 'Draft 30 Year Sustainable Urban Development Plan' are based on the cross-sectoral 'Urban Nexus' principles. These are:

- a) system-wide performance across sectors;
- b) context and customised solutions; and
- c) learning and mainstreaming across stakeholders.

Integration of spaces

In focusing on the available resources and their management, the 'Urban Nexus' approach encompasses the city-region as well. Recognising the urban-rural linkages, it promotes an integrated planning approach that incorporates both Naga City and its surrounding areas. Through 'Urban Nexus' trainings, these principles of spatial integration have been integrated into the Naga City land use and development plans. Moreover, the regional 'Urban Nexus' programme does not only stretch beyond the city's boundaries, but also beyond national boundaries. The programme enabled peer-to-peer learning across Asia that strengthens the South-South dialogue and led to the development of innovative, adapted, environmentally friendly and financially feasible solid waste management concepts such as converting waste into energy in Naga City and other partner cities.

Results

Besides providing cost-efficient typhoon resilient housing for 200 low-income Naga City government officials, the 'Urban Nexus' trainings contributed to the development of a local wastewater management policy. This policy helped the metro Naga water district recover the cost of setting up a EUR 2.73 million septic management facility. For the long term, it provides a policy framework for sustainable infrastructure provision that will allow Naga to establish a sewage system using new environmentally friendly technologies benefiting both the environment and the people. Moreover, a City ordinance defining the terms of reference for a waste-to-energy project is being finalised by the City Council and will be offered to private investors later in 2019. A new sanitary landfill has furthermore been built for Naga City and has begun processing the city's residual waste in June 2019. Upon the landfill's full completion in October 2019, Naga will close its 50-year old dumpsite, which has reached its intake capacity. Technical assistance provided under the 'Urban Nexus' programme in partnership with Thai experts aided in the development and construction of these two undertakings. Furthermore, the 'Urban Nexus' trainings provided by the regional programme contributed to the improvement of inter-sectoral coordination for the integrated

implementation of the 2030 Agenda and the nationally determined contributions (NDCs) on the national level and contributed to the completion of two planning documents based on the 'Urban Nexus' approach. The housing and land use regulatory board is currently reviewing the 'Comprehensive Land Use Plan for the City of Naga 2016-30' while the 'Draft 30 Year Sustainable Urban Development Plan', developed in partnership with BISCASST has been submitted to the city council for public consultation. Beyond these tangible successes, the 'Urban Nexus' trainings and experiences in Naga City established the 'Urban Nexus' approach in the thinking of the relevant stakeholders. Decision-makers at various levels are now aware of the significance and added value of integrated, cross-sectoral resource management, public consultations and private sector involvement.

Success factors

The capacity building through the 'Urban Nexus' workshops and policy advice strengthened the necessary skills of those responsible for the implementation of integrated urban development. They enabled the inter-sectoral cooperation, which have made the low-cost housing, sewage system, waste-to-energy project and development of planning documents such a success. The cooperation with BISCASST as academic institution proved highly relevant for the introduction of innovative, cross-sectorial ideas to the city, to the region and to students. As a training institute, BISCASST has the possibility of implementing concrete pilot projects using their own funds, thereby demonstrating best practice examples following the slogan "seeing is believing". In cooperation with the 'Urban Nexus' programme and BISCASST, a cross-sectoral Urban Nexus Task Force comprised of representatives from the city was established. The task force is responsible for steering the successful implementation of the projects and ensures the embedding and institutionalisation of the 'Urban Nexus' approach within the administrative structure of the city. Through the regional approach of the 'Urban Nexus' programme, Naga City is embedded within a network of partner cities. This has stimulated peer-to-peer learning and regular experience exchange with other cities in the Asia-Pacific region, which promoted the successful mainstreaming of the 'Urban Nexus' principles in Naga City.

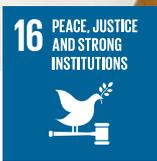
Transferability

A regional 'Urban Nexus' learning platform has been established by the programme, which holds 'Urban Nexus' workshops twice a year. Just as the projects in Naga City benefitted from the peer-to-peer exchange through the regional 'Urban Nexus Network', other projects in turn can benefit from Naga City's experiences. Their success thereby further promotes the Urban Nexus approach. Moreover, BISCASST redesigned its curriculum to incorporate the 'Urban Nexus' principles, making it a regional thought leader in innovative research and development of 'Urban Nexus' approaches. On-the-job-training for BISCASST teachers and students ensures the transferability of these projects as BISCASST can aid other institutions in learning about Nexus approach in the Philippines and abroad. Finally, the two key

planning documents that mainstream the Urban Nexus approach serve as an inspiration for Naga City, the Philippines and for the whole Asia-Pacific region.

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Implemented Key Measures

- Participatory Planning
- Pilot Projects
- Policy Development
- Long-term trainings on 'real cases'



Tools & Practices

- Participatory Planning (e.g. public hearings and votes, annual City Workshop)
- Peer-to-peer exchange (e.g. coordination council of city decision makers, bilateral city exchange, web-based bibliography, study trips)
- Capacity building (e.g. mentoring through seconded staff, Qualification 2030 program, CANactions study courses, university exchange)

Success Factors

- Political change through citizen's democracy demand ("Maidan-effect")
- Successful introduction of informal bottom-up approaches for transmission into legal status
- Creation of ownership through participatory processes among different stakeholders
- Intensive consultation and support ("mentor system") through seconded long-term advisors in city authorities
- Capacity development through peer-to-peer exchange
- Combination of capacity building measures and the implementation of „tangible“ pilot projects

Participatory Planning for Integrated Urban Development

Context and challenges

Until recently, the Ukrainian planning system was characterised by centralised development planning. Cities neither had appropriate planning methods and tools necessary for their development nor was the public engaged in decision making on their city's future.

In 2014, Ukrainians demonstrated for more democracy in their country and demanded their right to self-determination and transparency in the so-called Revolution of Dignity. The protests resulted in a change of government, which initiated a change of policy. As part of a decentralisation reform, several basic documents for the provision of administrative services, inter-municipal cooperation and citizen participation. Now, Ukrainian cities have planning sovereignty over the design of the municipal territory.

In addition, Ukraine and the EU ratified an association agreement, which aims to harmonise national norms and methods with European standards. For integrated urban development in Ukraine, this means that social, economic and ecological concerns must be more closely coordinated in parallel to improving local basic services and infrastructure. The “European Charter of Local Self-Government” and the “Leipzig Charter on Sustainable European Cities” serve as guidance in this regard.

Although the changed legal system provides a solid framework, a lack of experience and skill challenge the implementation at the local level. Administrative officers have to face the cities' economic and environmental concerns while also facing demographic changes due to increasing rural-urban migration. The appropriate answer to mounting challenges such as climate, demographic or mobility pattern changes is the endorsement of an integrated approach to urban development. This means that processes are no longer assigned to one distinct domain but are designed to incorporate holistically all dimensions of development.

Methodological approach

Following the Revolution of Dignity, citizens express an increasing demand for democratic co-determination and transparency in all aspects of life. Thus, the programme *Integrated Urban Development in Ukraine (IUD)* aims at meeting these demands through a bottom-up approach for community-based planning. On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Swiss State Secretariat for Economic Affairs (SECO), the programme “Integrated Urban Development” strives at improving living conditions in

the Ukrainian cities of Vinnytsia, Chernivtsi, Poltava, Lviv, Zhytomyr and Podilskiy District, an urban district of Kyiv.

Together with stakeholders from the city administrations, NGOs and technical experts, supported by international mentors, the programme elaborates integrated urban development concepts (IUDCs), which supplement the statutory urban land-use planning system. The programme supports jointly prioritised measures through pilot project, which make the complex task of urban planning visible for city administrations and citizens alike. Cities regularly share their experiences with the relevant ministry, thereby advancing the national reform process.

Through these activities, partner cities build their capacities on transparent and integrated planning. The focus is on strategic, spatial and participatory visioning and cooperation. Participation is based on two pillars: First, the participation of all stakeholders, in particular the population and second, inter-agency cooperation and information exchange.

In doing so, the programme supports its partners in creating inclusive, safe and sustainable cities – in line with SDG 11 of the 2030 Agenda.

Integration of stakeholders

The core of the programme work in the partner cities is the participatory elaboration of the IUDCs. Until now, it is an informal process, which receives binding status once the city council has passed the plan. It complements official general plans by formulating priorities and a vision for the city. Besides public hearings, innovative formats foster citizen engagement, which are firmly established: e.g. public votes to select pilot projects, campaigns to discuss IUDCs, architecture and ideas competitions, and the annual city workshops, called Maesternia Mista.

Through these activities, the municipal administrations inform their citizens about project ideas and long-term development goals. At the same time, civil society and other stakeholders like local businesses have the opportunity to present and discuss their ideas and initiatives.

Supporting gender equality and disadvantaged people as well as considering accessibility in all plans and activities are elementary points in the IUDCs. In this vein, they are promoting the 2030 Agenda principle “leave no one behind”.

Additionally, an exchange semester between the universities in Poltava and Chernivtsi and the Lübeck University of Applied Sciences started in the winter semester 2018/19 in order to improve further education on integrated urban development.

Integration of sectors

IUDCs are overarching municipal development plans aiming at sustainable and inclusive growth through a holistic approach. They incorporate all aspects of sustainability for the development of the city: social, economic, environmental and spatial.

Inter-sectoral working groups established in each city formulate the IUDCs to strengthen communication as well as cooperation within and outside city administrations, to define visions and priorities for their city's development and to anchor the approach of integrated urban development as steering tool for urban decision-makers.

Local economic development is a special focus in these strategic concepts to foster city-regional prosperity. Environmental protection and revitalisation are a key element in those plans to ensure sustainability. This becomes evident in the selection of pilot projects. Revitalisation of open public parks and places are the goal of the pilots in Poltava, Vinnytsia, Zhytomyr and Chernivtsi.

In addition, the programme supported the establishment of interagency focus groups to discuss sectoral issues. These include the development of Sustainable Urban Mobility Plans (SUMP) as part of integrated planning and the improvement of geo-information-based cadastral systems.

Integration of different levels of government

The project fosters horizontal and vertical inter-governmental exchange and cooperation through various approaches. An established coordination council enables inter-municipal exchange among the partner cities by discussing, among others, the development and finalisation of the IUDCs. In addition, the project cities are now also exchanging approaches bilaterally. Over a web-based bibliography, the knowledge gained in the project cities, as well as international good practices are available for all cities in Ukraine. Furthermore, the project mainstreams the Ukrainian Academy for Integrated Urban Development as a central instrument for replication. In October 2018, about 140 participants from 26 Ukrainian cities came together in Kropyvnytskyi to discuss the principles, development processes and priorities of SUMP with representatives of ministries and the civilian population.

Furthermore, feedback mechanisms to national entities are put in place to transfer lessons learnt from the implementation on the local level in order to support and enrich the process of policy development on the national level.

In addition, study trips to German cities established international peer-exchange. Moreover, cities use CANactions, a private education and training institution for urban development supported within the framework of the project, as a good network for exchange and for joint learning.

Integration of spaces

The programme closely works with the six partner cities across the country: Poltava, Zhytomyr, Chernivtsi, Vinnytsia, Lviv and Podilskiy District. They vary in size from 100,000 to 730,000 citizens, representing a diverse range of large and medium-sized cities in the Ukraine. For the first time in Ukraine, the elaborated strategic development plans incorporate spatial dimensions, which go beyond their administrative boundaries and link them together. Several action plans of the IUDCs include measures for strengthening urban-rural-linkages. Integrated local economic development activities based on regional specialities aim for broader territorial prosperity. For instance, in Poltava, situated in the corn chamber of Ukraine, planned activities strive for improving city-regional agricultural production- and further processing as well as promotion on local markets.

Results

Since 2016, four partner-cities elaborated and passed IUDCs. In Lviv and Podilskiy district, which joint the project in April 2018, the elaboration phase is currently ongoing. In this process, more than 2,000 employees from the partner cities have participated in around 250 seminars in the ‘Qualification 2030’ training programme. This training measure strengthens the cooperation, communication and coordination within city administrations. Besides improving soft skills, the participants learned about the relationship between integrated urban development and investments in infrastructure.

Cities created formats for the civil society participation and actively extend invitations to enrich the process. Citizen information centres provide information on initiatives. Together with the city-authorities, citizens have set development priorities. Within three years, over 40,000 people have taken part in around 225 public participation events.

Furthermore, training opportunities for urban planners have significantly improved. In addition to new courses for urban planners, the lately established international exchange semester offers further education to prospective technicians, administrators and academics.

In four partner cities, an integrated and participatory process led to the selection of pilot projects, which is an important innovation and impact in itself. In Poltava and Vinnytsia urban parks are reorganised. In Zhytomyr, an old water tower will be rehabilitated and in Chernivtsi a street space will be transformed into a public space.

Success factors

The programme utilised the “Maidan-effect” to open-up old soviet-style top-down approaches. The power of the civil society to force a regime change created an atmosphere, where openness for change was present and dynamic: civil society wanted change, politicians wanted to respond to this demand, and the administration searched for a new positioning. To satisfy the growing demand for democratic self-determination and transparency the project introduced a new bottom-up approach for urban planning, actively adopted by city leadership, administrations and civil society.

A further driver for success was the creation of ownership. The informal and participatory planning process for IUDCs and SUMP’s produced results, widely accepted and approved by the city councils. The joint elaboration of a strategy including a common spatial vision for the city, respective action measures, created acceptance and trust.

Additionally, the secondment of long-term international professional advisors, so called ‘mentors’, into the partner municipalities helped to facilitate the implementation of new approaches and policies for integrated urban development and citizen engagement.

Finally, peer-to-peer learning, both among the Ukrainian cities and with international partner cities, as well as a transfer mechanism to national entities supported capacity development and improved policy development and implementation.

Transferability

The participatory planning approach for elaborating the IUDCs and defining pilot projects have proven to be successful and are transferable to other contexts. Citizen engagement and public votes created acceptance and ownership for urban measures to ensure sustainable and integrated success. The German planning system and the “Leipzig Charter” provide essential information in this regard. Seconded staff within the city authorities helped to provide continuous orientation and support. While national personnel are better connected and more familiar with the local context, international experts might be more knowledgeable about international policies, standards and processes and bring in new perspectives. Therefore, a mix of national and international experts in programme teams is recommendable to bring in best of both worlds and to foster knowledge exchange.

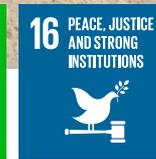
In addition, the combination of visible impacts via the implementation of pilot projects combined with capacity building demonstrates the functional interrelation between abstract planning procedures and hands-on measures deriving from the planning process. These “tangible” parts of the project increase the understanding of different approaches and methods of participation.

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Implemented Key Measures

- Policy advise for the alignment of international agendas
- Development and implementation of standardised planning tools
- Human capacity development
- Institutional capacity development



Tools & Practices

- Inter-sectoral steering committees for integrated policy development
- Multi-stakeholder task forces for the elaboration of spatial plans
- Establishment of cross-sectoral data base

Success Factors

- High-ranking politicians recognise the need for longer-term strategic policies
- Alignment of regional development plans to international agendas and guidelines
- Inter-sectoral coordination and cooperation through information exchange and mutual steering
- Availability of digital basic and sector specific urban data for integrated spatial planning

Localising the 2030 Agenda through Integrated Land-use Planning

Context and challenges

India is currently experiencing heavy pressure on its available land resources due to rapid urbanisation. By 2030, India's urban population will reach 600 million people from what was around 377 million in 2011. This adds to the complex challenges that Indian cities are facing already, such as providing adequate living space and basic services like drinking water, sanitation, drainage, and solid waste management. Increasing urbanisation and industrialisation divert agricultural land for other purposes, posing serious challenges in terms of ensuring food security to the population, particularly to the disadvantaged sections of society. Moreover, the country is facing an urban housing shortage of nearly 18.78 million units, which is mainly pertaining to lower income groups. The absence of an integrated concept for spatial and land use planning aggravates conflicts and encourages excessive exploitation of land resources.

This becomes obvious in the State of Tamil Nadu, which covers only about four percent of India's surface, but accommodates about 18 percent of its population. The competition for land among various sectors requires coherent land use planning to ensure balanced sustainable development. The changing land use patterns threaten the diversity of flora and fauna forcing them to survive within limited biodiversity hotspots. The challenges in spatial planning include the emergence of

rural land markets, ineffective regulatory mechanisms, a lack of clear land titles, and the high cost of land. The simultaneous weakening of the agricultural sector and high population densities have been coupled with growing infrastructure needs and inefficient tax collection leading to poor revenues.

Against this backdrop, Tamil Nadu started to develop policies and institutional mechanisms to promote coherent land use planning and management in order to sustain its ambitious developmental goals. Stakeholders in Tamil Nadu can draw on the reiterated commitment of the federal government towards the adoption of international guidelines such as the 2030 Agenda and the New Urban Agenda (NUA) that accords focus to housing in addition to the Sustainable Development Goal 11, and its implementation on state and municipal level.

Methodological approach

On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), more than six programmes – each with a different focus on urbanisation – form an “urban cluster” to strengthen integrated and inter-sectoral planning approaches for increasing synergies and funding efficiency. This provides a coherent framework for improved coordination and sustainability of sector planning and national urban missions



and programmes beyond individual project durations. In particular, two programmes stand out for their integrated approach. The *Land Use Planning and Management* programme focuses on standardising instruments for integrated spatial land use planning, while the *Sustainable Urban Development – Smart Cities* programme supports India's national Smart City programme by enhancing inter-sectoral approaches for improved housing and service delivery.

Both advise policy development and the application of integrated spatial plans to enable economic growth and social prosperity while preserving biodiversity and ecological resources.

Together with partners from national, state and local levels, the projects' approaches are based on four pillars:

1. Policy development to establish guidelines and principles;
2. Development and implementation of standardised planning tools;
3. Strengthening human capacity development; and
4. Organisational and institutional capacity development.

The integration of sectors and stakeholders is key in all project tiers to ensure sustainable development across a state's territory within its ecological boundaries as well as social inclusion and participation.

Integration of spaces

Tamil Nadu is one of three states where the German Development Cooperation is working in. Urban development activities in the State focus on the City of Coimbatore. Through vertical (state-national) and horizontal (state-state) exchanges knowledge, lessons learnt and best practices are shared among responsible officers and institutions.

Inter-sectoral steering rounds, with state secretaries from responsible departments, such as finances, forests, water, social and welfare, slum clearance, mining and, industries were established in Tamil Nadu. The partners spoke out strongly in favour of institutionalising regional planning, so that both urban and rural areas are equally taken into account. Due to rapid urbanisation and industrialisation, the main focus is on urban areas, but integrating peri-urban and rural areas in those plans is cru-

cial to ensure evenly distributed development to leave no one and no place behind.

Tamil Nadu has taken a fundamental decision to include spatial planning as part of economic planning at state and multi-urban/regional level. Strengthening urban-rural linkages, such as agricultural value chains, are a vital part in that to utilise local resources and specialities thus strengthening all regions of the state. By building municipal alliances resources are bundled, thus increasing efficiency and effectiveness while decreasing costs and consumption of land and biodiversity.

Integration of different levels of government

To meet the challenges of integrated urban development and localising the 2030 Agenda each tier of government has a specific task to accomplish. Exchange, coordination and cooperation between these tiers of government is crucial.

On national level, the Ministries of Urban Development, Housing and Urban Affairs as well as of Rural Development, and its Department of Land Resources are responsible for policy creation, for which the principles and goals of the 2030 Agenda and guidelines of the NUA are taken into account. On state level, the development of regional development and land use plans is in the hand of state government. Further, it coordinates, supervises and monitors the implementation of these plans in close contact with municipal authorities, which are responsible for implementing development plans on local level. For their regional and local development plans, the state of Tamil Nadu and the city of Coimbatore drew on the 2030 Agenda and NUA as framework conditions.

With support of the two programmes, policies on land use management and spatial planning could be amended; modern planning tools have been developed and implemented. Their inter-ministerial development ensured their broad acceptance. Close contact among the responsible institutions on the various levels has been fostered to improve policy formulation and implementation. In this way, it is ensured that results and lessons learnt from implementation feed into updated laws and guidelines and vice versa.

Integration of sectors

In India, laws and regulations on urban and rural land use planning have not been amended for a long time and their application is neither comprehensive nor sufficient. By adopting international agendas such as the 2030 Agenda and the NUA, India's government committed to developing integrated solutions for land use planning and urban development. However, the challenge is to translate international principles of the 2030 Agenda and the rather vague guidelines of the NUA into concrete laws and binding regulation adapted to local contexts.

Important for creating integrated solutions is that policies and guidelines are derived through extensive discussions with the main sectoral ministries and bodies, both on policy and technical level. In this regard, an inter-sectoral steering committee has been established as a standardised operating mechanism. This

allows representatives from the various responsible ministries and departments to bring in their perspective for holistic planning. By this, urban and rural concerns are considered likewise, as well as economic, ecological and social issues to achieve sustainable strategies.

Working groups with experts from the respective ministries developed spatial planning guidelines and technical, methodological and procedural planning instruments. These provide the impetus for a cross-departmental approach to the joint coordination of land use planning. This cross-sectoral approach is appreciated and supported within the partner structure.

The elaboration of regional and local development plans in Tamil Nadu and Coimbatore (e.g. State Development Plan, Metropolitan Area Development Plan, District Development Plan) follows a transparent procedure and weighs ecological, economic and social concerns equally. Particular attention is paid to the participation of women and disadvantaged groups in the development of such plans.

Additionally, digital data from the various departments is used to overcome the sectoral divide and to improve inter-sectoral coordination. The joint visualisation of sectoral plans and their integration in digital masterplans makes urban dysfunctions already visible in the planning stage and thus promotes cross-sectoral and cross-institutional coordination.

Integration of stakeholders

Following the principles of the 2030 Agenda, governmental entities on all levels engage with private sector, academia, and the local population to develop inclusive planning tools and processes for territorial strategic development.

In Tamil Nadu, state authorities established multi-stakeholder task forces that elaborate regional spatial plans. Officers and planners from the various responsible state departments accompanied by technicians and sector experts bring in their specific knowledge to make sure that plans are inclusive and consider all sectoral perspectives.

In Coimbatore, participatory planning methods guide the development of metropolitan and district plans to ensure inclusion of stakeholders and civil society. In participation workshops, planning students discuss current developments in the district with residents and locally elected representatives and set up scenarios. Various local NGOs are involved in this process to secure that needs and demands of less privileged groups (women, disabled people and slum dwellers) are taken into account.

Results

Through the introduction and application of modern planning tools and guidelines, land management and land use planning became more transparent and balanced, with regard to the ecological, economic, and social aspects.

Standardised operating procedures and guidelines for intra- and inter-ministerial coordination facilitated inter-sectoral cooperation among responsible ministries and agencies at the central, state, and municipal level, which is an essential prerequisite for developing an integrated land use plan. Selected pilots depict the advantages of integrated urban development. An example

from Coimbatore is the development of design principles for wastewater treatment plants, which allow the reuse of recycled wastewater for irrigation and cleaning.

By strengthening inter-sectoral coordination and participatory planning, integrated approaches were introduced in the Coimbatore and other partner cities. Experiences gained during the project contribute to India's Smart City initiative.

Success factors

A major key for success was that high-ranking politicians increasingly recognise the need for longer term strategic guidance documents. Regional planning is now seen as an urgent necessity in federal and local institutions and climbed up on the daily agenda. Instrumental to that was the alignment of national policies, regional and local development plans to internationally agreed goals and principles. Local policies that relate directly to global agendas are more independent of short-term shifts in political priorities and increase planning and investment security for implementation projects.

Additionally, trainings on integrated spatial planning were institutionalised. They are carried out by national training universities.

The projects utilised the changing atmosphere to break sectoral silo thinking for fostering cross-sectoral cooperation to develop integrated solutions. The cooperation benefited from the fact that basic urban data and sector plans were digitally available.

Transferability

All 193 member states of the United Nations signed the 2030 Agenda. The New Urban Agenda has been adopted by about 170 member states. However, apart from the allocation of planned activities to the appropriate SDGs on national level, the implementation of the 2030 Agenda is lacking behind in many countries. The NUA as a non-binding document is mostly used as an orientation rather than a guideline. Therefore, the Indian case of breaking down internationally agreed principles and goals and transferring them into national policy and regional as well as local development is a good example for the localisation of the 2030 Agenda and provides great opportunity to be rolled out in other countries. The inter-sectoral approach on different governmental levels serves as a good practice for integrated spatial planning and sustainable urbanisation in line with the principles of the international agendas.

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Implemented Key Measures

- Integrated urban green planning for improved environment and biodiversity
- Integrated multi-stakeholder approach



Tools & Practices

- Cash for Work (CfW)
- Capacity development/Trainings
- Participatory planning and design
- Context-sensitive, biodiversity-enhancing greening measures
- Local economic development

Success Factors

- Political attention and commitment on multiple governmental levels
- CfW combined with local economic development strategies
- Participatory and context adapted activity design and implementation
- Integrated approach:
 - Integration of a variety of strategic urban sectors
 - Integration of a variety of relevant actors and stakeholders
 - Integration of a variety of spaces and regions

Paving the Way for a Greener and more Social-cohesive Urban Future

Context and challenges

For decades, Jordan has sheltered refugees from neighbouring conflict- and war zones. By the beginning of June 2019, more than 664,000 refugees from war-torn Syria were officially registered in Jordan according to the United Nations High Commissioner for Refugees (UNHCR). However, a large number are not officially registered as refugees under the Geneva Convention. Government agencies estimate the number at around 1.4 million Syrian refugees. This resulted in more than a 10 percent increase in the population of Jordan in just a few years. Around 80 percent of refugees do not live in refugee camps, but in municipalities.

The rapid population growth puts immense pressure on the country and its people, forcing them to compete for jobs, water, electricity and food. It has become more difficult to earn a sufficient wage.

In many of the municipalities, the infrastructure does no longer meet the needs of the growing population, and municipalities lack the resources to maintain and create public open spaces. This affects all groups of society: adequate and accessible green open spaces are a key factor to human well-being as they stimulate recreational activities and support social cohesion. Functional public green spaces, networks and recreational areas

are essential for the improvement of urban climate can foster biodiversity and contribute to climate change adaptation.

In addition, the unemployment rate in Jordan is around 19 percent and there are hardly any job opportunities in the low-wage sector. Not all sectors are open for non-Jordanians. As a result, living conditions of refugees and vulnerable Jordanians in urban, suburban and rural areas are increasingly deteriorating. Under the economic pressure, environmental challenges are not regarded as a priority. At the same time, Jordan's natural systems are extremely fragile. If the environment and biodiversity are irrevocably degenerated, this may lead to further migration in the future.

Methodological approach

On behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), the programme: *Improvement of Green Infrastructure in Jordan through Labour-Intensive Measures* aims at improving green infrastructure and the conditions for social cohesion, public life, urban climate and biodiversity through labour-intensive work of Syrian refugees and vulnerable Jordanians. Women and men who are particularly in need are selected for a Cash for Work (CFW) scheme. They

plant trees, contribute to urban gardening, create picnic areas, and restore parks, playgrounds and outdoor sports facilities. Stairs and footpaths in public space get necessary renovations, which makes the areas safer and fosters neighbourhood connections. This development and maintenance of green infrastructure serves entire communities, promoting contact between neighbours and families.

Integration of spaces

The programme works in 10 urban and 14 rural municipalities. The focus is on creating and maintaining green infrastructure in urban, peri-urban and rural areas, as well as rehabilitating ecosystems in nature reserves. The overall goal is to create liveable spaces for social encounter, interaction and recreation as well as to enhance and preserve local environments and biodiversity. The programme considers local contexts in its measures. By using different local plants for arid and more humid areas, the viability of the plants can be secured. Furthermore, the programme aims at developing networks of green infrastructure along urban, peri-urban and rural areas. This approach including working on different scales of interconnectivity. This can mean for example to improve nature reserves and at the same time public open spaces in the adjacent municipalities or establishing an ecological learning garden in a national research centre while teaching communities about sustainable home gardening.

Integration of stakeholders

The programme and its partners foster dialogue and cooperation between municipal authorities and their citizens: all residents – locals and refugees; girls, boys, women and men – are encouraged to get involved in the planning process of the measures.

Participatory processes regarding the site selection as well as the nature of the design ensure the creation of ownership within the community. Local and international landscape architecture offices are contracted for developing and implementing the designs, while securing that the work is labour intensive (i.e. maximum amount of manual work) and can be implemented by cash workers. For the design development, special attention is given to the needs of women and girls in the public realm.

Humanitarian organisations support the programme by providing social services, i.e. hiring of workers, team building or trainings in life skills, by creating safe working environments, providing post-employment services and referral systems for vulnerable cases and psycho-social or trauma related issues.

Integration of sectors

The integrated programme approach addresses various crucial challenges of Jordan's urbanisation process to provide sustainable solutions.

Green infrastructure on one hand serves numerous environmental and social functions. At the same time, the construction measures promote local economic development and through the inherent trainings, skills of workers are improved.

The green infrastructure developed through the programme offers many benefits. Daily living environments are improved, people can live a healthier lifestyle and neighbourhoods become safer. The creation of walkability, potentially reduces traffic which improves air quality and activates social life. Furthermore, connection to nature and environment is strengthened, urban biodiversity is fostered and natural species are protected. Storm-water drainage and rainwater harvesting are encouraged which improves resilience to floods and increases infiltration.

In addition, the labour-intensive work measures help to secure livelihoods of vulnerable households on a short term. The programme includes capacity development measures beyond short-term income effects through temporary employment, also by offering additional trainings geared to formal labour-market needs and opportunities to connect with longer-term employment. Furthermore, the programme encourages local socio-economic development through local procurement and services for construction and planting measures and food and transport of the workers.

Finally, the programme work promotes social cohesion by employing Jordanians and Syrians in mixed groups, providing public open spaces for the whole community and specifically integrating women workers. In the urban environment, the community's sense of belonging is strengthened through participatory events and activities carried out in all programme phases, which also contribute to raising local authorities' capacities in terms of service provision, accountability and transparency.

Results

The notion of public space hardly exists in the perception of politics and the population of Jordan. Furthermore, the enormous pressure through the population increase and economic hardships of the country has resulted in sacrificing public open space to real estate development and thus led to a general neglect of open space as a public good. Through the programme work, awareness of the importance and the value of public open space and urban biodiversity can potentially influence decision makers. At the same time, it supports in creating ownership of public goods within the population. The programme shows how the CfW approach can be used to create, rehabilitate and maintain inclusive public spaces in a participatory and sustainable way, at the same time reducing social tensions and contributing to more liveable cities.

In the south of Jordan, for example, a neighbourhood park was rehabilitated and reopened after more than 15 years of closure. Women, who until then did not have a chance to leave their homes without male accompaniment from the neighbourhood, have recently formed a maintenance committee of the park and are, with their children, the main users. Since the park redesign was developed collectively, it is regarded by the entire community as a safe space.

Green infrastructure creates and maintains networks of open spaces, and traffic is reduced by improving pedestrian connections. In Amman, for example, access to a school is improved and stair connections between residential areas and public transport are repaired.



Entire communities benefit from the labour-intensive methods and the development of public spaces and green spaces. Traditional craftsmanship is combined with local materials and species, and workers are specially trained.

In total, the programme employs 3,000 workers, over a period of at least 80 days. While half of those employed are Jordanians in need, the other half are Syrian refugees. At least 20 percent of workers are women. Since the average household in Jordan consists of five family members, the programme can support up to 15,000 people. Approximately three quarters of workers will receive further qualification in different areas, such as gardening, sustainable cultivation practices, life skills, financial literacy, or labour-market preparation, where possible in cooperation with other programmes of the German Development Cooperation

services. Developing context-adapted solutions jointly with residents and migrants is key for sustainable solutions, as pointed out by the project.

Sources

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Success factors

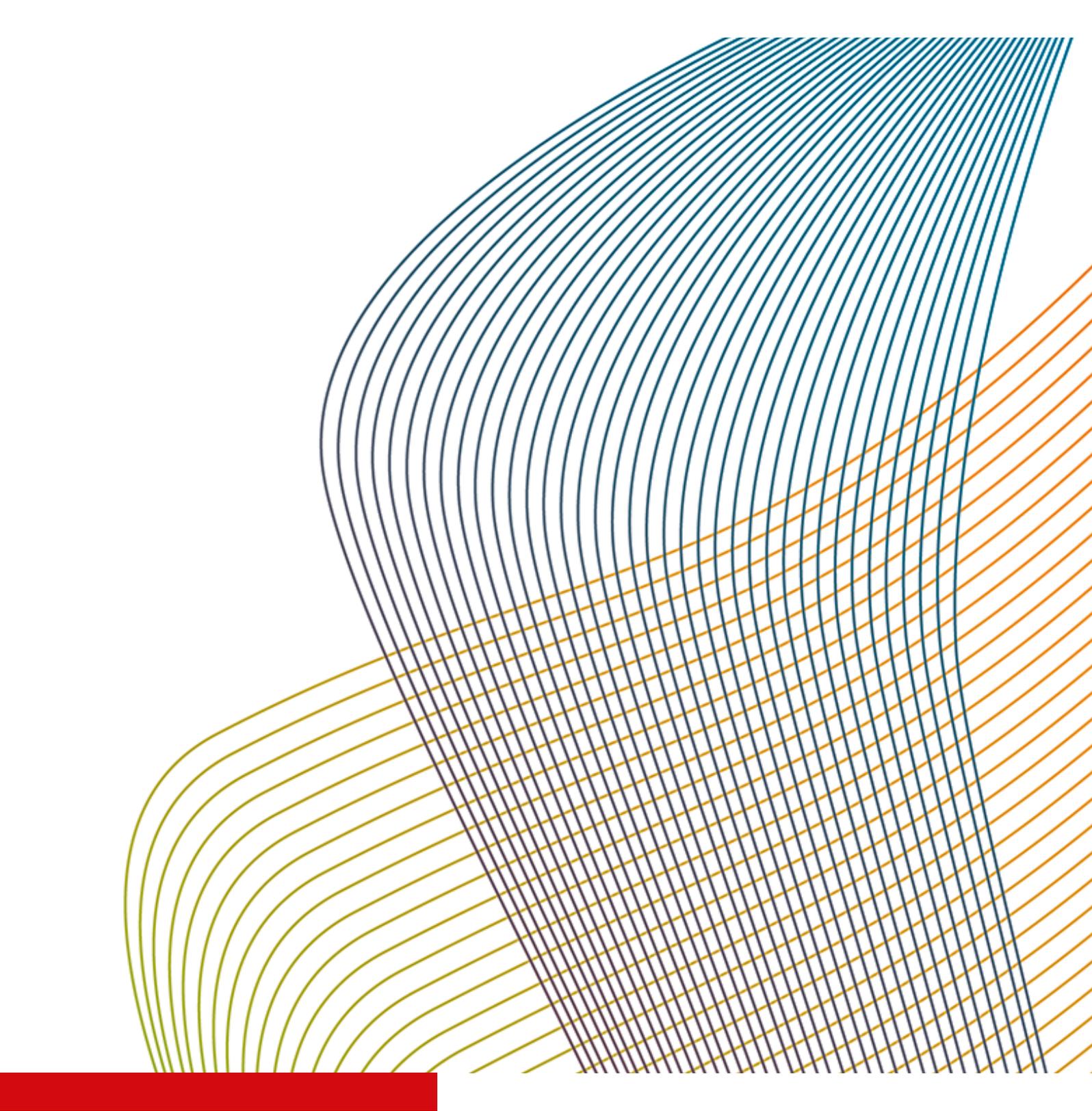
The high pressure on authorities to meet the rapidly rising demand on urban infrastructure and services led to great commitment for vast action and development.

Furthermore, it paid off to earmark a sufficient budget for cash workers in the programme design. Through the labour-intensive approach, i.e. more budget for cash workers than for construction material more households could be reached that benefitted from the activities. The cash workers are offered short-term employment in accordance with Ministry of Labour and social security regulations. This will create long-term prospects not only in Jordan, but also in Syria once the war is over. Additionally, by procuring domestic materials the local economy could further be strengthened.

Finally, the context adaptation of the rehabilitation measures (e.g. higher walls for climatic reasons and privacy protection) combined with participatory and demand-driven design processes were major success factors. This contributed to the strengthening of social cohesion, to the acceptance by the local community and to a sustainable maintenance after the end of the programme.

Transferability

The project has successfully proven that the Cash for Work approach, if adapted in an integrated manner, will influence a society positively on various levels. Socially, by dismantling resentments and improving social cohesion. The participation of women in decision-making and construction has the potential to open new opportunities for the society as a whole. Economically, through strengthening the local economy, which can be increased by accompanying measures such as local procurement. Environmentally, by enhancing quality of residence, local biodiversity, air quality temperature and resilience against climate change through the greening activities. Furthermore, earmarking a sufficient budget for cash workers is the basis of each CfW system. However, sustainable development opportunities, such as accompanying capacity development measures, are crucial to secure positive social, economic and environmental results on the long run, e.g. to create a valuable employment perspective in the host and home country's labour market. The project approach is suitable for other countries in crisis areas affected by high inflow of migrants, which additionally burden local infrastructure and



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