



RAMADI URBAN RECOVERY AND SPATIAL DEVELOPMENT PLAN

LOCAL AREA DEVELOPMENT PROGRAMME - EU



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UN-HABITAT
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RAMADI URBAN RECOVERY AND STRATEGIC SPATIAL DEVELOPMENT PLAN

LOCAL AREA DEVELOPMENT PROGRAMME-EU



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EXECUTIVE SUMMARY

The Local Area Development Programme (LADP), funded by the European Union (EU) and implemented by UNDP in partnership with UN-Habitat, in close coordination with the Ministries of Planning (MOP) of the Federal and Kurdistan Region governments and Governorate-level authorities, was designed to address the main issues that hinder planning at the local level, the implementation of plans and related delivery of service to citizens of Iraq.

The overall objective has been to contribute to the stability and socio-economic development of the country by strengthening its government systems and enhancing the capacity to plan and execute budgets at the local level.

Over the course of the past three years, LADP-EU has supported the development of coherent strategic frameworks for local planning that aimed to link investment expenditures to the achievements of the larger strategic investment priorities at both local or national levels embodied by the *National Development Plan 2018-2022* and Iraq's commitment to the *2030 Agenda for Sustainable Development* and its Sustainable Development Goals (SDGs).

Through its “bottom-up” and participatory approach, the LADP-EU program has contributed to a better understanding of how can local development and urbanisation be steered and supported by effective sectoral, spatial and land policies, frameworks and implementation tools.

The *Ramadi Strategic Urban Recovery and Development Plan*, developed through intensive data collection, damage assessments, consultations, and joint planning work, aims to assist the local authorities address citizens' most pressing needs and reconstruction priorities.

Destruction in Ramadi has notoriously been more severe than anywhere else in Iraq. As of today, since its liberation, the scale of the physical destruction of homes, public facilities, services and infra-structure is still apparent and humbling. The analysis of satellite imagery revealed that over 7,500 buildings have been partially or totally destroyed – including nearly 200 public facilities and road infrastructure. UNDP, UN-Habitat and other agencies and NGOs are engaged in the physical rehabilitation of several hundreds of homes of returnees - yet there are still many severely damaged neighbourhoods where the damage is so extensive that few families have been able to return.

The proposed strategic spatial plan focuses on rebuilding communities by linking housing recovery, basic services and infrastructure upgrading, with the trade-based economy of the city. In looking ahead to the medium to long-term future of the city, the plan promotes a more equitable and sustainable use of land and environmental resources, embodied by the notions of “compact cities” and “cities for all” – both of which lie at the core of the *New Urban Agenda*.

The proposed approach of ‘*building back better*’ hinges upon existing opportunities to: relocate selected polluting industries and reuse brownfields; create infill opportunities within the city centre to reduce the need for future urban expansion; address residential encroachments on land earmarked for public use and the informal growth of fertile agricultural land; and spatially guide public and private investments towards identified future economic poles and infrastructure nodes where they will have a multiplier effect on the future socio-economic prospects of the city. The *Ramadi Strategic Urban Recovery and Development Plan* hinges a set of critical pillars (physical, infrastructural, environmental, socio-economic, services and facilities, land tenure, accessibility etc.) and identified ‘anchors’ of physical and socio-economic development where to maximize potentials for growth and investments by donors and government agencies.

PREAMBLE

UN-Habitat is the United Nations Programme for Human Settlements. It is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all. Its activities contribute to the overall objective of the United Nations system to reduce poverty and promote sustainable development within the context and the challenges of a rapidly urbanizing world.

Urbanization has increasingly been recognized as a key driver of the transformation of national economies and as an effective instrument for poverty alleviation. However, rapid urbanization is often taking place in a context of weak urban and territorial planning at different scales and levels. As a result, its outcomes are uncertain, as urbanization can only deliver economic transformation and prosperity if it is guided and supported by effective sectoral and spatial national policies, frameworks and implementation tools.

To harness urbanization and mitigate its negative externalities, and promote an “urban paradigm shift”, there is need for a coordinated approach and clear policy directions based on a spatial framework.

UN-Habitat is developing new tools and new responses to support countries to look at

urbanization as part of their overall economic transformation. In this regard, efforts to develop National Urban Policies and National Spatial Plans are critical to maximize the opportunities offered by a specific system of cities to promote sustainable development. UN-Habitat has strengthened its areas of work around three main areas: urban planning, urban economy and urban legislation.

Through LADP, UN-Habitat is supporting Iraq to develop National and Governorate Urban Strategies, policies and spatial plans based on context-specific drivers, dynamics and structural transformations of urban growth.

Ramadi Urban Recovery and Spatial Development Plan

In the pilot governorate of Anbar, LADP has supported the drafting of an urban recovery and development plan for Ramadi city. This learning-by-doing component was being implemented by UN-Habitat under the umbrella of the EU-funded Local Area Development Programme (LADP), led by UNDP. UN-Habitat’s contribution to LADP-EU focuses essentially on capacity building and providing substantive technical support in achieving the programme’s objective and results.

The Ramadi Strategic Urban Recovery and Development Plan offers a set of effective

urban planning strategies to facilitate return, recovery, development and reconciliation in one of the worst conflict-affected cities in Iraq.

The proposed approach of ‘*building back better*’ hinged upon opportunities to relocate selected land uses and spatially guide investments towards future economic poles and infrastructure nodes where they will have a multiplier effect on the future socio-economic prospects of the city.

PLANNING PROCESS AND METHODOLOGY

In an effort to understand the scale of urban destruction, population displacement and consequent economic crisis that governorate of Anbar has suffered as a consequence of the violent conflict with ISIL, LADP team worked closely with the local authorities to develop a comprehensive physical damage assessment, prioritize needs in infrastructure, housing and services & facilities to be for addressed by Strategic Urban Recovery and Development Plan. The consultations brought together officials and civil society, providing a platform where to address citizens' aspirations with a view to facilitate return, recovery, development and reconciliation. The consultations workshops were organised as a step-by-step participatory process that offered participants a holistic platform to discuss the transition from humanitarian assistance and recovery efforts to sustainable urban development in these areas will entail large and long-term multi-sectorial investments from both the public and private sectors, with support from multi-lateral agencies, donors and lending institutions. The workshops were attended by officials from Ministry of Planning, Anbar governorate, Ramadi Municipality, urban planning directorate, planning directorate, Anbar housing directorate, Anbar University, Anbar

education and infrastructure directorates (water, electricity, roads, bridges), buildings directorate investment board. The planning process was concluded with a presentation of the proposed plan to Ministry of Planning in Baghdad, and to the local authorities in Ramadi.

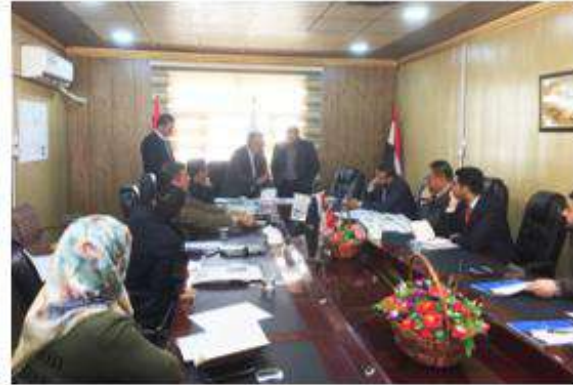
This report aims to capture the information gathered so far on the level of destruction in the urban areas and summarise the outcomes of the consultation and planning process.

Planning steps

The team and the participants involved in this initiative have contributed to the following sequence of information gathering and planning steps:

- Drafting of detailed GIS maps on (1) Ramadi city land use; (2) damage assessment of housing, services, education, health, sewage stations, water treatment plans and pumping stations; (3) priority areas for rehabilitation; (4) overview of rehabilitation projects of public facilities implemented in Ramadi; (5) informal settlement boundaries.
- Drafting dashboards for (1) *who is doing what* in Ramadi (2) Informal settlements and informal urbanisation on agricultural lands
- Environmental assessment for the industrial zone in Ramadi.

- Set of presentations (post conflict planning and *building back better*, anchoring physical recovery to socio-economic growth,
- Situation update on housing, industrial, commerce, agriculture, education, health;
- State of infrastructure and public services
- SWOT and Stakeholders analysis;
- One-to-one consultations of officials in the Directorates of Water, Sewage, Electricity, Municipality, Urban Planning, Planning;
- Delivery of consultation panels:
 - (1) damage to housing, infrastructure, services and public facilities;
 - (2) Proposed Development Poles;
 - (3) viable Housing Recovery Solutions;
 - (4) Ramadi priority projects and cost estimation;
- Set of 3D illustrations for core housing unit development and Ramadi west;
- Proposed institutional framework for Ramadi reconstruction;
- Proposed housing assistance strategies;
- Housing finance;
- Presentations in Ministry of Planning in Baghdad and Ramadi;
- Punctual consultations on selected topics;
- Collation of illustrative panels to describe proposed interventions.
- Sharing of final plans with local stakeholders for feedback.



The 2030 Agenda for Sustainable Development

The adoption of the Sustainable Development Goals (SDGs) and the global endorsement of the New Urban Agenda (NUA) following Habitat III have set ambitious targets on urban development by the global community and UN member states, and provides fresh impetus to strengthen the role of cities in driving poverty reduction, stability, and sustainable development. The 2030 Agenda for Sustainable Development, which aims to 'leave no one behind', recognizes the importance of leveraging good urbanization as a solution to the global challenges of poverty, exclusion, peace and security.

The NUA, adopted by Member States in October 2016, provides a direct link between urbanization and sustainable development by offering a practical framework for its implementation at the local level, calling for a more effective, coordinated and accelerated implementation of urban development solutions is needed to harness urbanization and unleash the potential of cities to provide solutions to poverty, inequality, climate change, and to other barriers to sustainable development.

As UN and bi/multi-lateral agencies, partners and member states gear up for its implementation, in many countries achieving



these goals will be challenging – particularly where rapid urbanization and structural transformation are taking place in the context of climate change and socio-economic fragility. Governments will have to mobilise long-term resources and sustained technical support if they wish to succeed. The issue is not merely financial, but scholarly.

Fundamental for the implementation of the New Urban Agenda in Iraq will be the development of critical minds and evidence-based decision-making skills among

practitioners and decision-makers. Urban planners, specifically, will be increasingly under pressure to interpret the multi-disciplinary implications of social, economic and environmental sustainability and spatial justice in cities – with the Iraqi academia playing a critical role in the formation of future “change agents”.

11 SUSTAINABLE CITIES AND COMMUNITIES




TARGET 11.1 SAFE AND AFFORDABLE HOUSING

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.



TARGET 11.2 AFFORDABLE AND SUSTAINABLE TRANSPORT SYSTEMS

By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.



TARGET 11.7 PROVIDE ACCESS TO SAFE AND INCLUSIVE GREEN AND PUBLIC SPACES

By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.



TARGET 11.A STRONG NATIONAL AND REGIONAL DEVELOPMENT PLANNING

Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.



TARGET 11.3 INCLUSIVE AND SUSTAINABLE URBANIZATION

By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.



TARGET 11.4 PROTECT THE WORLD'S CULTURAL AND NATURAL HERITAGE

Strengthen efforts to protect and safeguard the world's cultural and natural heritage.



TARGET 11.B IMPLEMENT POLICIES FOR INCLUSION, RESOURCE EFFICIENCY AND DISASTER RISK REDUCTION

By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels.



TARGET 11.C SUPPORT LEAST DEVELOPED COUNTRIES IN SUSTAINABLE AND RESILIENT BUILDING

Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.



TARGET 11.5 REDUCE THE ADVERSE EFFECTS OF NATURAL DISASTERS

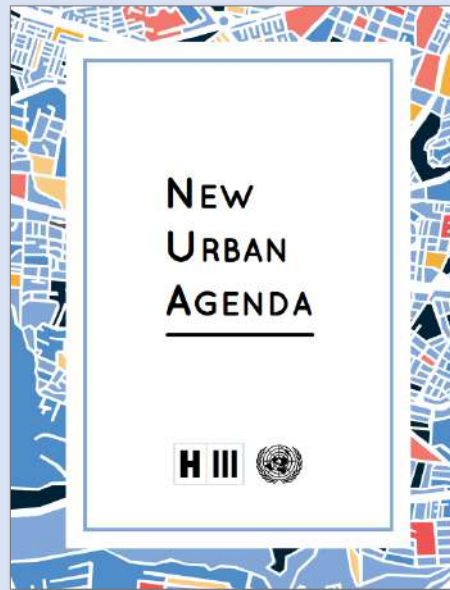
By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.



TARGET 11.6 REDUCE THE ENVIRONMENTAL IMPACT OF CITIES

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

The New Urban Agenda We envisage cities



VISION

We share a vision of cities for all, referring to the equal use and enjoyment of cities and human settlements, seeking to promote inclusivity and ensure that all inhabitants, of present and future generations, without discrimination of any kind, are able to inhabit and produce just, safe, healthy, accessible, affordable, resilient and sustainable cities and human settlements to foster prosperity and quality of life for all.

and human settlements that:

- a) Fulfil their social function, including the social and ecological function of land, with a view to progressively achieving the full realization of the right to adequate housing as a component of the right to an adequate standard of living, without discrimination, universal access to safe and affordable drinking water and sanitation, as well as equal access for all to public goods and quality services in areas such as food security and nutrition, health, education, infrastructure, mobility and transportation, energy, air quality and livelihoods;
- b) Are participatory, promote civic engagement, engender a sense of belonging and ownership among all their inhabitants, prioritize safe, inclusive, accessible, green and quality public spaces that are friendly for families, enhance social and intergenerational interactions, cultural expressions and political participation, as appropriate, and foster social cohesion, inclusion and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations;
- c) Achieve gender equality and empower all women and girls by ensuring women's full and effective participation and equal rights in all fields and in leadership at all levels of decision-making, by ensuring decent work and equal pay for equal work, or work of equal value, for all women and by preventing and eliminating all forms of

- discrimination, violence and harassment against women and girls in private and public spaces;
- d) Meet the challenges and opportunities of present and future sustained, inclusive and sustainable economic growth, leveraging urbanization for structural transformation, high productivity, value-added activities and resource efficiency, harnessing local economies and taking note of the contribution of the informal economy while supporting a sustainable transition to the formal economy;
- e) Fulfil their territorial functions across administrative boundaries and act as hubs and drivers for balanced, sustainable and integrated urban and territorial development at all levels;
- f) Promote age- and gender-responsive planning and investment for sustainable, safe and accessible urban mobility for all and resource-efficient transport systems for passengers and freight, effectively linking people, places, goods, services and economic opportunities;
- g) Adopt and implement disaster risk reduction and management, reduce vulnerability, build resilience and responsiveness to natural and human-made hazards and foster mitigation of and adaptation to climate change;
- h) Protect, conserve, restore and promote their ecosystems, water, natural habitats and biodiversity, minimize their environmental impact and change to sustainable consumption and production patterns.

From crisis to opportunity: UN-HABITAT's response to disaster and conflict

Helping cities and communities reduce risks and transition from crisis to sustainable urban development.

The urban environment, which includes built elements, social structures, land, and ecology, is becoming progressively more fragile as a result of uncontrolled urbanization. Consequently, urban populations face increasing risks associated with economic, social, and environmental crises. Nowhere is this more evident than in countries where urban in-migration and population growth outpace local governments' capacity to meet basic needs, plan and finance growth, and address growing vulnerabilities within their villages, towns, and cities.

UN-HABITAT supports national governments, local authorities, and civil society to strengthen their capacity in managing human-made and natural disasters affecting human settlements. This applies to the prevention and mitigation of disasters, as well as rehabilitating human settlements and addressing the needs of displaced populations. UN-HABITAT's mandate is derived from the Habitat Agenda and

resolutions of the gency's Governing Council and the UN General assembly.

The normative framework for UN-HABITAT's work in this arena is its Strategic Policy on Human Settlements in Crisis, together with the Sustainable Relief and Reconstruction Framework. The work is carried out through three primary mechanisms: 'prospecting' or undertaking programme formulation initiatives in countries and cities facing or recovering from crisis; 'programming' or managing the mainstreaming and oversight of the implementation of the agency's normative framework and the production of tools, learning materials, and guidelines derived from its work; and 'promotion' or engaging in advocacy, outreach, networking, and partnerships within the international aid community.

UN-HABITAT strongly encourages the earliest engagement by local authorities in defining risks, assessing capacities, establishing stakeholder systems, and building financial resources for reducing risk. The failure to do so is often sadly illustrated in the loss of life, property, infrastructure, and social systems during a crisis. Ironically, it is typically only after a disaster that local and national governments wake up to the vulnerabilities of their urban settlements and see opportunities to reduce vulnerability and create resilience. However, 'building back better' requires certain key principles: a compact with all

stakeholders – including, where applicable, the international aid community and local national governments – to work towards a common purpose; a commitment to analyse previous and future vulnerability and mitigate risk through reconstruction; and finally, an honest appraisal of the capacity to deliver and a commitment to address any limitations to ensure sustainability.

Housing

Promoting stronger housing and holistic reconstruction

UN-HABITAT provides policy and technical advice to governments, humanitarian actors, and communities to support hazard-resistant housing reconstruction. Our approach is based on the following principles:

- Survivors of a crisis are the agents of their own recovery. They should not be treated as liabilities, but as assets to be mobilized and supported.
- Promoting safe return to habitable houses is critical, combined with advice on hazard-resistant reconstruction.
- Traditional building materials and culturally acceptable forms and techniques are the foundation for reconstruction and must be improved, not replaced.
- Housing solutions must be complemented by initiatives to address land use, tenure, livelihoods, and critical infrastructure and

services. Experience has shown that temporary solutions have a way of becoming permanent.

These principles have been proved time and again in a variety of contexts.

Critical infrastructure and services

Protecting basic services and ensuring post-disaster recovery

Affordable basic services and infrastructure in cities are some of the most important engines of sustainable urbanization. However, dependency on services and infrastructure also represents a key point of vulnerability for urban populations during disasters.

UN-Habitat’s experience in natural or human-made disasters. Urbanization, a changing climate, and social instability add layers of

complexity to the challenge, and loss of other service capacity (such as solid or liquid waste management) exacerbates already critical conditions. It is the intersection of all of these vulnerabilities with natural or human-made crises that concerns UN-Habitat.

Planning

Building back better

Strategic spatial planning is a powerful tool to ‘build back better’ in crisis-affected countries. It provides an integrative framework for assistance; puts the focus on building back communities by linking housing with basic services and infrastructure and the essential urban recovery elements of environmental remediation and livelihoods; and enables more equitable and sustainable use of space. This is necessary when emergency response

runs the risk of entrenching inequitable land use or legitimizing unjust outcomes of conflict.

Globally, UN-HABITAT plays a key role in putting spatial planning back at the core of the global drive towards sustainable urbanization and development.

Country-level experiences are used to further develop planning approaches that facilitate risk mitigation, adaptation, and more equitable access to land. UN-Habitat is committed to supporting communities, local and national governments, and our partners to make cities more resilient – preferably before crises occur and definitely after they do.¹

UN-HABITAT CRISIS WORK: EXAMPLES OF ACTIVITIES WORLDWIDE

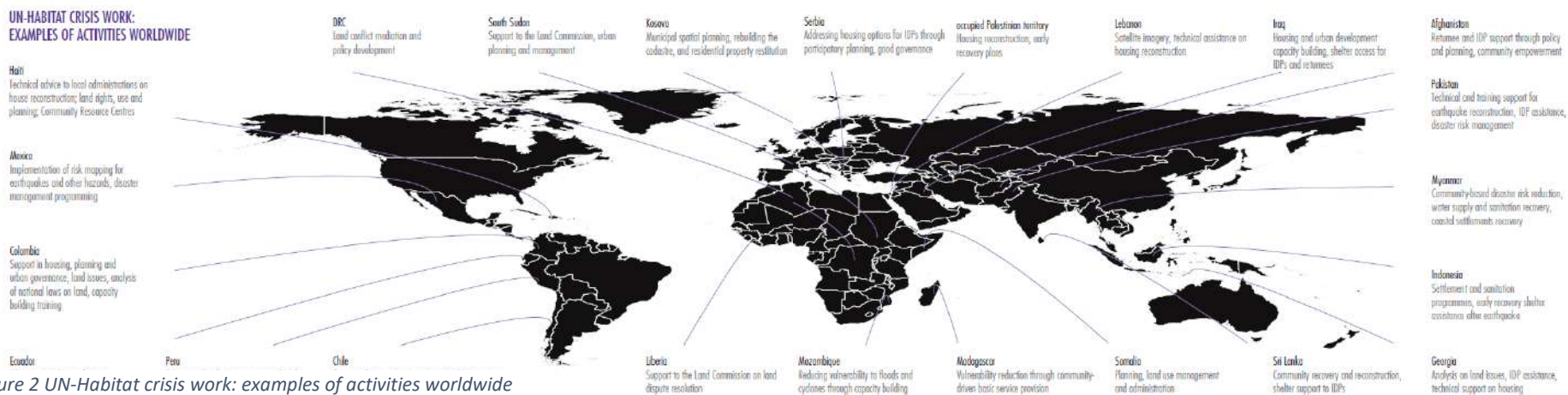


Figure 2 UN-Habitat crisis work: examples of activities worldwide

¹ UN-Habitat (2011), “Disaster and risk management”.



**BACKGROUND
AND SITUATIONAL ANALYSIS**

CONTEXT

Anbar Governorate Location

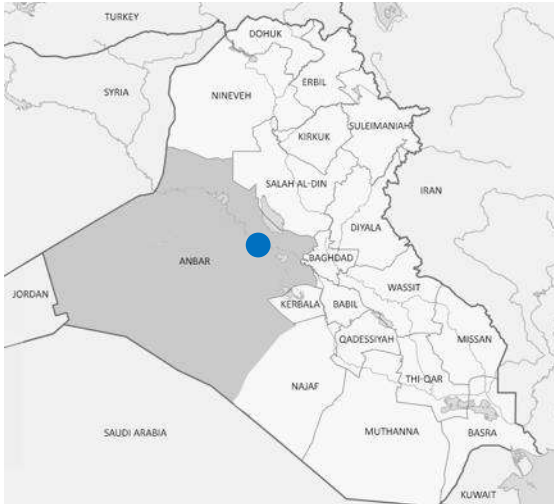


Figure 3 Anbar governorate location

Anbar Governorate is located in the western part of Iraq. With area of 138 579 km² (55 315 200 *donums*), it is the largest governorate in Iraq, constituting 32% (almost a third) of Iraq's total area.

The Governorate has joint administrative borders with Nineveh, Salah Al-Din, Baghdad, Babil, Kerbala and Najaf governorates, and international borders with Syria, Jordan and Saudi Arabia. As such, it has strategic location for trade and transport. Four crossing points

into Iraq are: Qa'im and Waleed crossing points with Syria, Traibeel with Jordan and Ara'ar with Saudi Arabia.

Anbar Governorate is divided into 11 *qadhas* (districts) – (from North to South) Qa'im, Rawa, Ana'a, Haditha, Heet, the governorate centre Ramadi, Khalidiya, Fallujah, Amiriyat, Karmah, and (in the south-west) Rutba; these are further sub-divided into 22 *nahias*. We note that Amiriyat, Karmah and Khalidiya *qadhas* only obtained this administrative status very recently (2017). Therefore, (1) some ministries are still working with the old administrative division, which may create confusion; and (2) data for Anbar disaggregated per all 11 *qadhas* is not readily available.²

Ramadi City Profile

The City of Ramadi is the capital of Al Anbar Governorate (*Muhafadha*) and is situated at the intersection of the Euphrates River and Al Warrar Channel, at 110 Km to the west of Baghdad and about 450 Km from the Iraq-Jordan border along the Baghdad – Rutba – Damascus highway. In addition to these two bodies of water, the Habbaniyah Lake is located a short distance to the south of the City of Al Ramadi. The population of Al Ramadi has grown from just under 10,000 in

1947 to about 30,000 in 1965. The City's population was estimated at about 39,000 in 1970 and its present population is estimated to have grown to approximately 230,500.

The topography of Al Ramadi is generally characterized by relatively gentle slopes. The town centre is built on flat, drained land situated between dykes to the north and south. A high-water table prevails under most of the City area.

Over the years, Ramadi's boundaries and development patterns have generally been influenced by its natural landscape and the water bodies surrounding the City. The key features of Al Ramadi include the mosque, the bazaar and the water tower. The mosque, with its distinctive architectural form, and the water tower are the most common land marks penetrating the almost horizontal skyline of the City. Evidence of earlier settlement can be traced in the old section of the City where the town developed around the mosque and the market. The danger of floods forced the city growth away from the Euphrates River in the north in the direction of the highway towards the south.³

² Gol/UNDP (2018), "Anbar Provincial Recovery Plan"

³ Ramadi Master Plan 2013

Conflict context

During the first four years of Operation Iraqi Freedom (OIF) in 2003, the Anbar Province was the deadliest province for American service members, claiming approximately one-third of American fatalities. Aside from Baghdad, Anbar witnessed more fighting and killing than any other governorate since the US-led occupation of Iraq began in 2003. During the early years of OIF, it provided an important base for Al Qaeda and insurgent operations, as foreign fighters and insurgents used the river valley to move in relative safety from the Syrian border to cities like Baghdad, Ramadi and Fallujah.

Occupation by ISIL

Anbar is one of Iraq's governorates worst affected by the 2013–2014 ISIL invasion and resultant heavy combat. More than one million people have been internally displaced, and infrastructural damage has been significant. All in all, ISIL came to control ca. 80% of Anbar's territory. In Dec 2013, incidents led to violence in Anbar between the Iraqi Army and a loose alliance of tribal militias and other groups fighting alongside ISIL. In Jan 2014, the anti-government forces took control of Fallujah, and there was heavy fighting in Ramadi. In June, ISIL launched a

major offensive in Anbar alongside their assault on Northern Iraq. In late Sept–early Oct 2014, ISIL launched an offensive aimed at fully occupying Anbar. ISIL seized Saqlawiya on 22 Sept following a 7-day siege, and Kbesa on 4 Oct, following the capture of most of nearby Heet; the Iraqi army fully retreated from Heet on 13 Oct. By UN estimates, the fighting over Heet alone displaced ca. 180 000 people. On 17 May 2015, ISIL captured Ramadi, after launching multiple waves of suicide attacks during a sandstorm, which caused Iraqi forces to retreat. The liberation offensive started on 13 July 2015, involving different types of security forces in coordination with the International Coalition Forces. Since, all qadhas of Anbar province have been liberated from ISIL control: Ramadi (end-Jan 2016), Amiriyat and Fallujah (June 2016), Karmah, Khalidiya, Heet (Apr 2016), Haditha and Rutba (May 2016), and most recently, Ana'a (Sept 2017), Qa'im (Nov 2017) and Rawa (Dec 2017). With the liberation of the last sands of ISIL in Anbar – announced on 10 Dec 2017 – there are officially no longer ISIL-held parts of Iraq.

Still, the situation in Anbar remains unstable. On being driven out, ISIL have left thousands of explosive devices, which makes difficult the return to normal life; the Army with the support of UNMAS are conducting operations

to clear Anbar of explosive devices. Much of the economic infrastructure is destroyed, making difficult economic recovery; services are still missing; and poverty levels are very high. The situation is exacerbated by the number and situation of IDPs and the pervasive fear of retributive acts.⁴



Figure 4 Returnee women in Ramadi© UN-Habitat

⁴ GoI/UNDP (2018), "Anbar Provincial Recovery Plan"

Multi-sectoral Analysis

Issues and challenges

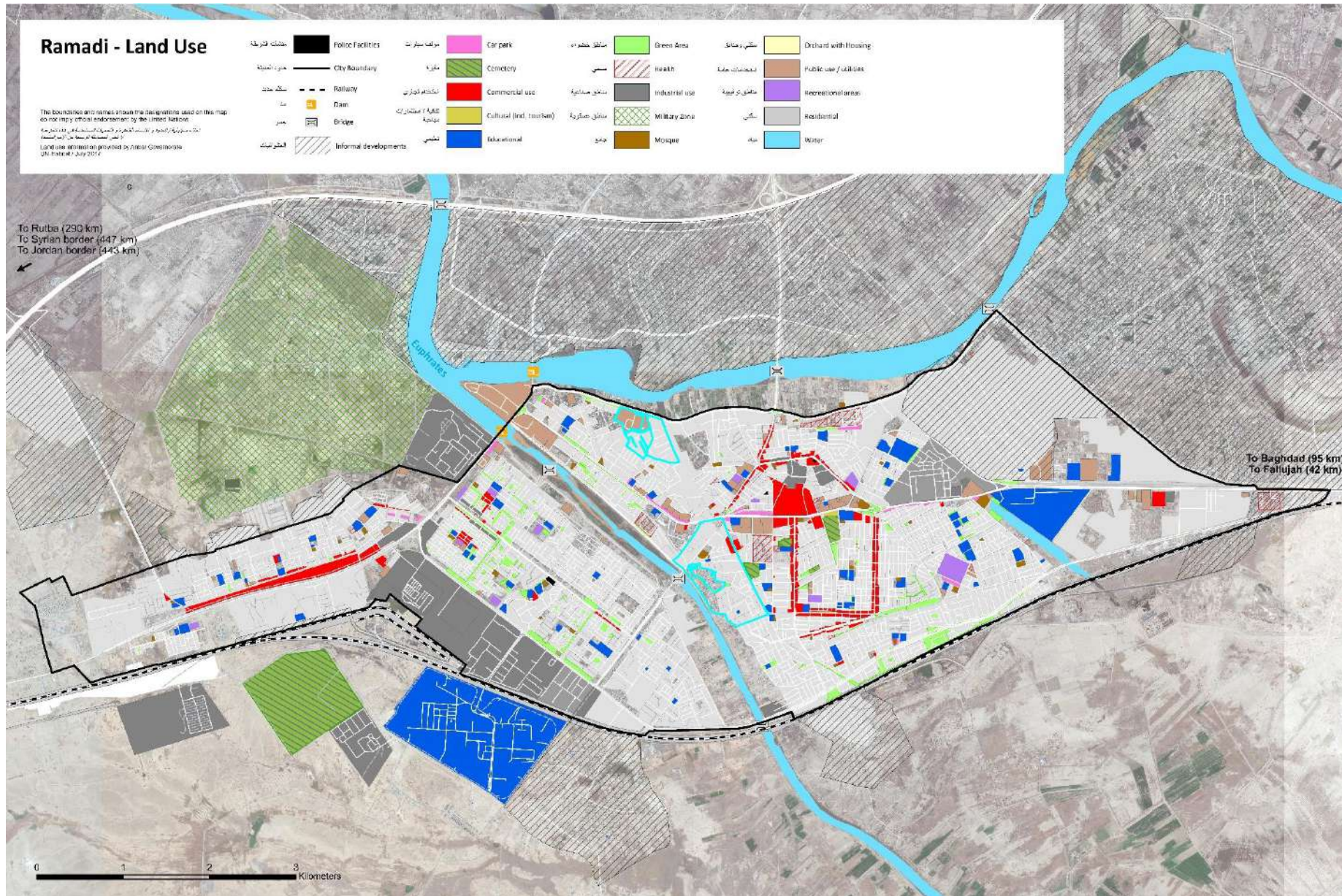
2.1 HOUSING	2.2 INDUSTRIAL	2.3 TRADE AND COMMERCE
<p>SYNOPSIS</p> <ul style="list-style-type: none"> • <u>Type of residential buildings</u>: 95.9% single unit; 4.1 apartments • <u>Residential buildings age</u>: 7% (40 years+); 19.2% (30-39 years); 31.5% (20-29 years); 21.3% (10-19 years); 20.3% (10 years) • <u>Ownership of residential buildings</u>: 80.5% privately owned, 14.9 leased, 1.5% illegally occupied • <u>Housing plot size</u>: 9.6% (400-800 m²); 50.7% (200-400m²); 33.3% (100-200 m²). • <u>Housing unit construction material</u>: Stone 58.6%; brick 33.5%; cement 3% <p>CHALLENGES</p> <ul style="list-style-type: none"> • Low housing density, adoption of low density horizontal housing, large household size, and high overcrowding rate. • The massive destruction and serious damage to housing units as a result of terrorist actions and military operations with proportions of destruction and damage reported at up to 80% of the city. • The phenomenon of informal settlements and encroachment on property has increased considerably due to the return of displaced persons and the level of physical development and services within the city. 	<p>SYNOPSIS</p> <ul style="list-style-type: none"> • <u>The eastern part of the city</u>: existence of car repair workshops as well as some light industries. • <u>The western part of the city</u>: Glass and ceramic industry, construction material industries (tiles, concrete building blocks, concrete tiles, and prefab building). In addition to the manufacturing industries such as asphalt, textiles and food factories. • 940 industrial enterprise (small 912, medium 18, large 6) total number of workers 2732. <p>CHALLENGES</p> <ul style="list-style-type: none"> • Shortage of skilled workforce • Insufficient use of available resources • Low competitiveness of goods and shortage of marketing opportunities • Traffic and environmental disruption as a result of the industries located east of the city, the location of large industries existing west of the city has become environmentally unsuitable as it is surrounded by residential expansions located west of the city and divides the urban fabric of these areas. • Most of the factories and industrial services have been closed due to damage or high levels of destruction, as well as power outages, inadequate transportation and poor level of services in general, and lack of skilled labor as a result of migration. 	<p>SYNOPSIS</p> <ul style="list-style-type: none"> • <u>Central Business District</u>: It comprises wholesale and retail establishments, restaurants and cafes, hotels, medical clinics and offices. The streets of this area are characterized by their narrowness and the intensity of commercial uses on both sides of the street, leading to high traffic congestion despite the adopted one-way traffic system. • <u>Local commercial streets</u>: Commercial facilities are located on both sides of the central streets and the Main Street, main terminal at the junction of internal and external transport routes and the presence of many government institutions; • <u>Local commercial centers</u>: Located within the residential district and based on the concept of the residential neighborhood, which provides all the services, cultural and social requirements; local market areas (suq) have emerged such as the market areas of <u>8 February</u>, <u>Hay Al-Ta'leem</u>, <u>Hay Al-Andalus</u> and <u>Hay Al- Mu'tasim</u>. <p>CHALLENGES</p> <ul style="list-style-type: none"> • Major traffic jams caused by the central business district, as well as inadequate local market locations • Significant physical damage to many of the commercial premises, as well as the declining purchasing power and level of financial resources that were depleted under conditions of displacement. Most banks are no longer functioning, and local and foreign capital owners and investors have not returned to the city.

2.4 ROADS AND TRANSPORTATION	2.5 AGRICULTURE	2.6 PUBLIC FACILITIES
<p>SYNOPSIS</p> <ul style="list-style-type: none"> • <u>Highway of Baghdad</u>, traverses the city from its eastern part towards the Ramadi Barrage and Al-Warar Regulator. Due to the proximity of the International Highway to the north of the city, there is no need to establish a ring road as the International Highway facilitates vehicular traffic around the city. • <u>Al-Warar Regulator was the only crossing</u> that connects the two sections of the city along the banks of Al-Warar River. <u>Later, another bridge was built on Al-Warar River</u>, which provides a rapid crossing and a close link from the central area of the city to its other side. • There is only one railway in Anbar (522 km) –from Baghdad, to Fallujah, Ramadi, Haqlaniya, Qa'im, toward the Syrian border, and across the mines' area in Anbar's north-west. It serves passenger and goods transport (with 24 and 5 stations respectively). <p>CHALLENGES</p> <ul style="list-style-type: none"> • Lack of well-defined road network in the eastern part of the city, traffic congestion due to the overlapping uses, particularly in the city center, inadequate public transportation system, insufficient number of bridges across Al-Warar River to link the east part of the city to its west. • Inadequate crossings along the Baghdad - Ukashat Railway line, which led to isolating the south-western parts of the city and non-implementation of the expansion therein. • The destruction of all the city bridges and the damage that affected most roads within the city as well as railway tracks and stations. 	<p>SYNOPSIS</p> <ul style="list-style-type: none"> • Ramadi is ranked as the second district (2013) in Anbar Governorate after Fallujah in plant agricultural products (wheat, yellow corn, secondary crops, groves, Richards, vineyards, dates and fruits. • Ramadi shares approximately 30 % of animal husbandry of sheep, cattle, camels and buffalos and 50% of chicken in Anbar Governorate. • The rural areas of Ramadi have natural and human resources that serve agricultural production (both crop and livestock), with widespread fertile alluvial land, abundant water from the Euphrates and irrigation projects extending in most of the city's rural areas. • The adequate climate and availability of labour has stimulated agricultural activity to become a significant contributor to its economy. The city became a hub for the collection and marketing of agricultural products. <p>CHALLENGES</p> <ul style="list-style-type: none"> • Lack of/insufficient financing allocations, subsidies and loans to support the sector; no investment; • Lack/shortage of qualified and specialised staff across sub-sectors;⁵ • Environmental degradation (soil salinity, water availability, overfishing.⁶ • The disruption of agricultural production and migration of most of the rural population towards the city centre. • The gradual and informal construction of housing units over agricultural land located to the east of the city and on the fertile land that lies between the River Euphrates and Highway. 	<p>SYNOPSIS</p> <ul style="list-style-type: none"> • Most of the administrative institutions are concentrated in Ramadi as it is the capital city of Anbar governorate. These institutions provide administrative services to the inhabitants of the city and the Governorate • There are 48 mosques that occupy 0.4% of the city. In most of these mosques, Friday and Eid prayers are held, as well as religious contests and religious lectures of a cultural nature, which are held in religious events, particularly during the month of Ramadan. <p>CHALLENGES</p> <ul style="list-style-type: none"> • Up to 46 administrative institutions and departments concentrated on both sides of the main street; this led to high traffic congestions. • The destruction of most of the facilities of the government compound and the relocation of many departments to temporary alternative sites, with a minimum level of performance. There are difficulties for citizens to access these central departments (given that Ramadi is the governorate's capital city), especially the inhabitants of neighbouring towns and villages due to the known mobility constraints.

⁵ Gol/UNDP (2018), "Anbar Provincial Recovery Plan"; p. 33

⁶ Ibidem.

2.7 HEALTH & EDUCATION	2.8 RECREATIONAL FACILITIES	2.9 SEWAGE AND SOLID WASTE
<p>SYNOPSIS</p> <ul style="list-style-type: none"> The total number of educational institutions is 128, distributed as follows: 74 primary schools (with an average of 34 pupils per classroom), 12 intermediate schools with 30 students per classroom, 11 high schools, 12 secondary schools, 18 colleges and institutes, and 1 University. The educational institutions not only serve the city of Ramadi, but also cater for the communities in Ramadi District and other towns in Al- Anbar Governorate, especially in the field of university education. About 9.9% of Al- Anbar University students are from outside the Governorate. The total number of health institutions in the city is 16, distributed as follows: (11 health care centres, 2 General Hospitals, and 3 Specialized Hospitals). <p>CHALLENGES</p> <ul style="list-style-type: none"> The identified shortage within the education sector according to the adopted standards is 9 primary schools, 34 high schools, and 13 secondary schools. The severe damage in most educational facilities and inadequate public support services, encroachment, and the incomplete return of students and educational staff. Also, the problem relating to dealing with past periods of interruption of education, increased rates of illiteracy and the drop-out of students. Destruction or substantial damage to most health facilities, which prevents proper functioning despite the return of a significant proportion of human resources working in this area. 	<p>SYNOPSIS</p> <ul style="list-style-type: none"> Public Library: its area is 3.0 hectares located on the main street opposite to Al-Qatana quarter. Its structure was renovated before the recent events. Stadium: Located south of Hay Al-Malaab (the largest quarter within the city), occupies an area of 5.2 hectares with a capacity of 15,000 spectators. The stadium includes a swimming pool and a variety of sport spaces to host the annual and periodic sports events conducted by the sports teams, primary and secondary schools. Ceremonial Square: Located at the city’s eastern entrance opposite the College of Agriculture and occupies an area of 5.0 hectares. Official and public ceremonies were held there at national events. Indoor sport halls: There are two indoor sport halls in the city of Ramadi, the first in Hay Al Andalus and the second in Anbar University Campus. These are two small halls dedicated to volleyball, handball, basketball and table tennis. Amusement Park: a small amusement park and some shops established on the site that was previously a park. In this amusement park, the city’s children gather on Eid, holidays and official holidays for play and recreation. The area of the park with the shops is 5.1 hectares. <p>CHALLENGES</p> <ul style="list-style-type: none"> These facilities are inadequate in terms of number and spatial distribution to fulfill the needs of the city The destruction and damage that affected most recreational facilities because of military operations. 	<p>SYNOPSIS</p> <ul style="list-style-type: none"> There is no sewage network In some areas only, there is a storm-water drainage system in some streets. The first site is located in Al-Jarashi area north of the city, around 8 km from the municipality's borders. It is an open waste dump area, which is used by the municipality for this purpose. The second location: in Al-Humaira area, which was recently introduced due to the security conditions in Ramadi. <p>CHALLENGES</p> <ul style="list-style-type: none"> The absence of a sewage network in the city has adversely impacted the citizens, the environment and the quality of groundwater and rivers, causing the spread of diseases and health hazards. The use of the first site for waste disposal has ceased for security reasons and the adoption of the second alternative site, along with the inefficient solid waste collection and disposal process due to the damage of most of the specialized municipal vehicles.

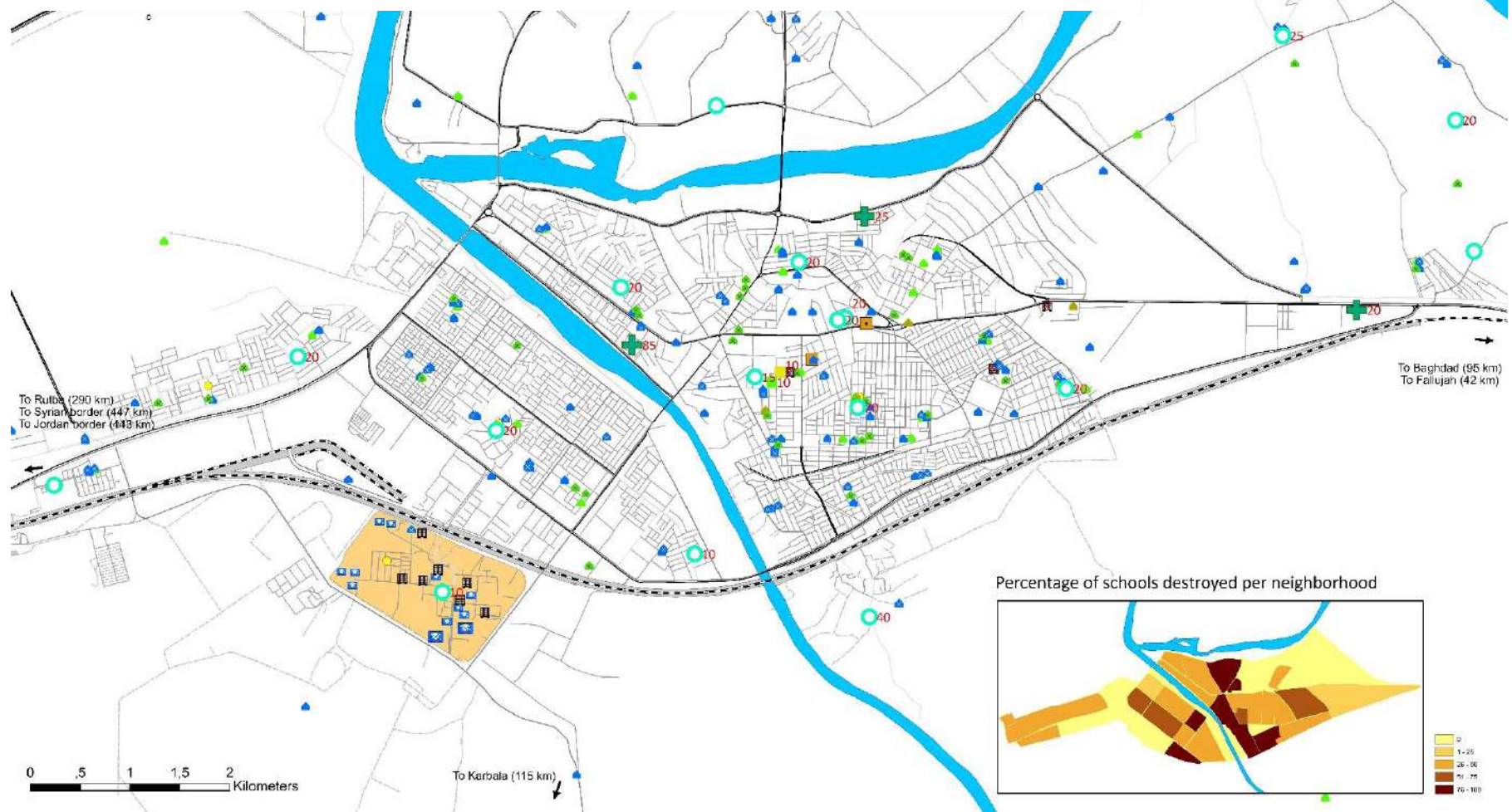




Ramadi - Health & Education

This information and notes shown in this map are for informational purposes only and do not constitute any official endorsement by the United Nations.
 المعلومات الواردة في هذه الخريطة والبيانات هي لأغراض إعلامية فقط ولا تشكل أي دعم رسمي من قبل الأمم المتحدة.
 Latest data information provided by Anbar Governorate
 Updated on: July 2017

(Destroyed)	(Not Destroyed)	%	percent of damage	تعليم مهني	Vocational Education
مدرسة ابتدائية	مدرسة ابتدائية	مستشفى	Hospital	رياض أطفال	Kindergarten
مدرسة اعدادية ثانوية	مدرسة اعدادية ثانوية	مركز صحي	Health centre	معهد	Institute
كلية	كلية	مركز صحة الامبار	Alambar health office	جامعة الامبار	Anbar University
ادارة التعليم العربي	ادارة التعليم العربي	مركز الصحة العامة	General Health department		
	Primary School				
	High+Secondary School				
	College				
	Other Education Department				



Ramadi Master Plan 2013

In line with its policy to update the master plans of Iraqi cities, the General Directorate of Physical Planning of the Ministry of Municipalities and Public Works (MMPW) intends to implement a study to prepare the Development Strategy of Al Ramadi and Update its Master Plan. The Association of the Iraqi based Engineering Consultancy Bureau of Al Mustansiriya University and the Canadian based HYDROsult Center for Engineering Planning (HCEP) has been commissioned by MMPW to carry out the tasks of this assignment.

The master plan aims to guide the development of Ramadi city till the year 2033, and the purpose is to develop a framework, to identify problems that facing the city within it, and enable the implementation of solutions in a coherent manner.

Vision

"The future of development in the city of Ramadi is based on its spatial advantages, the functions of its Status as Social facilities Center and the characteristics of the city. The Future Vision of Ramadi aims to achieve the best of these three features, which will attract projects and investors from outside the city, offering a sophisticated and effective environment for the people of Ramadi to flourish and grow"

The development guidelines and directions as stipulated in these Plans were neither implemented nor adhered to due to the unfortunate events of recent years in Iraq, in general, and in Ramadi particularly. These events have created facts because rendered these Plans unsuitable to address the future needs of Al Ramadi both at the local and regional levels. The update of the master plan, which will be implemented over five separate stages as stipulated in the terms of reference and the scope of work.

The updated master plan concept

- Based mainly on the concept of creating a physical integration between the existing city, the non-implemented areas of expansion designated under the previous master plan, and the proposed expansion for the coming years up to the year 2033.
- Taking into consideration the results of the analysis and study that identified the most appropriate trend for the expansion of the city, and identified the most suitable location of the main elements within the Master plan, such as residential and industrial areas, commercial centers and various facilities.
- The southwestern part has been identified for the expansion of the city, followed by the development of a plan that is appropriate to the city's character, nature, topography and its particularity. The main expansion area

includes residential neighborhoods distributed around the city center (the center of educational, service, commercial, and recreational activities).

- New residential expansion areas shall accommodate 240,000 inhabitants.

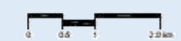
Challenges

Many of the data and parameters that formed the basis for the planning decisions adopted for the update process have changed significantly considering the great destruction and the current parameters, which necessitates a re-evaluation of these decisions adopted in the plan update based on the new parameters; however, this does not necessarily mean not adopting them in general. It should be taken into consideration, as regards the areas of expansion and the need for them, and the appropriate proposed axes, that all these parameters have not changed radically under the new situation, as the direct impact of destruction was focused on the oldest and already implemented part of the city.



LEGEND

- Existing Residential
- Existing High Rise Residential
- Proposed High Rise Residential
- Horizontal Residential
- Mixed Use
- Mixed Use (Commercial and Public)
- Mahala Center
- Qattaf Center
- Neighborhood Center
- City Center
- Commercial and Administrative Center
- Free and Storage Area
- Educational Buildings
- Healthcare Buildings
- Hospital
- Healthcare Center
- Public Buildings and Services
- Cultural Area
- Commercial Buildings
- Car Exhibition
- Cemeteries
- Recreational and Playground Area
- Existing Mosque
- Proposed Mosque
- Youth Investment
- Light Industrial
- Green Areas and public Parks
- houses with Orchards
- Open Area
- Agricultural Area
- Proposed Expansion Area
- Creating the future according to the views of the old and the new town
- Slaughterhouse - Illegal Use
- Green Belt
- Multistorey Car Park
- International Transportation Park
- Train Stations and Passenger Positions
- Railway
- Roads network
- Water Courses
- Master plan border



Master Plan of the City of Al Ramadi

Modified Master Plan by Directorate

Scale	Date	Map No.
1:25000@A1	June 2013	4.2
1:70000@A3		

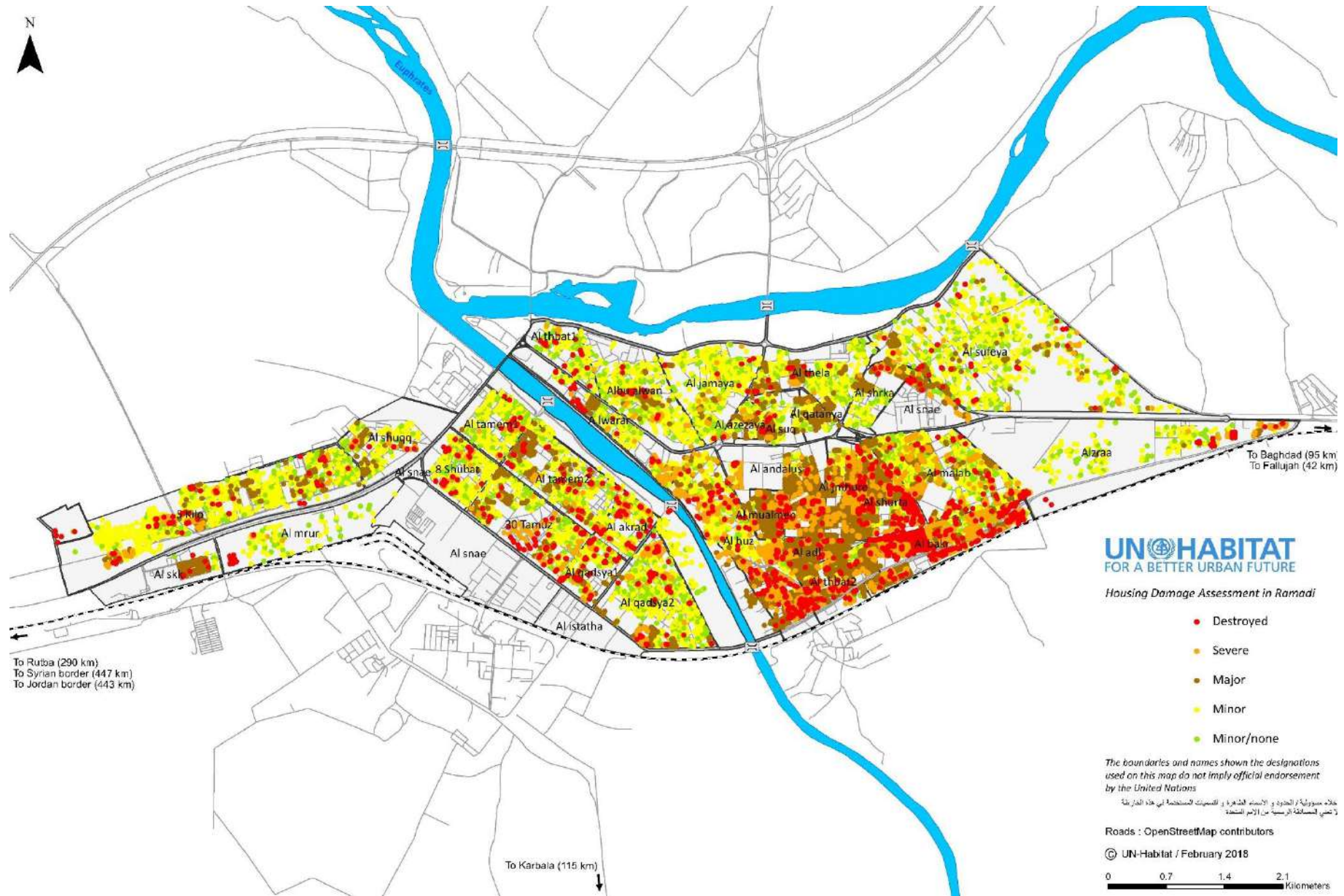


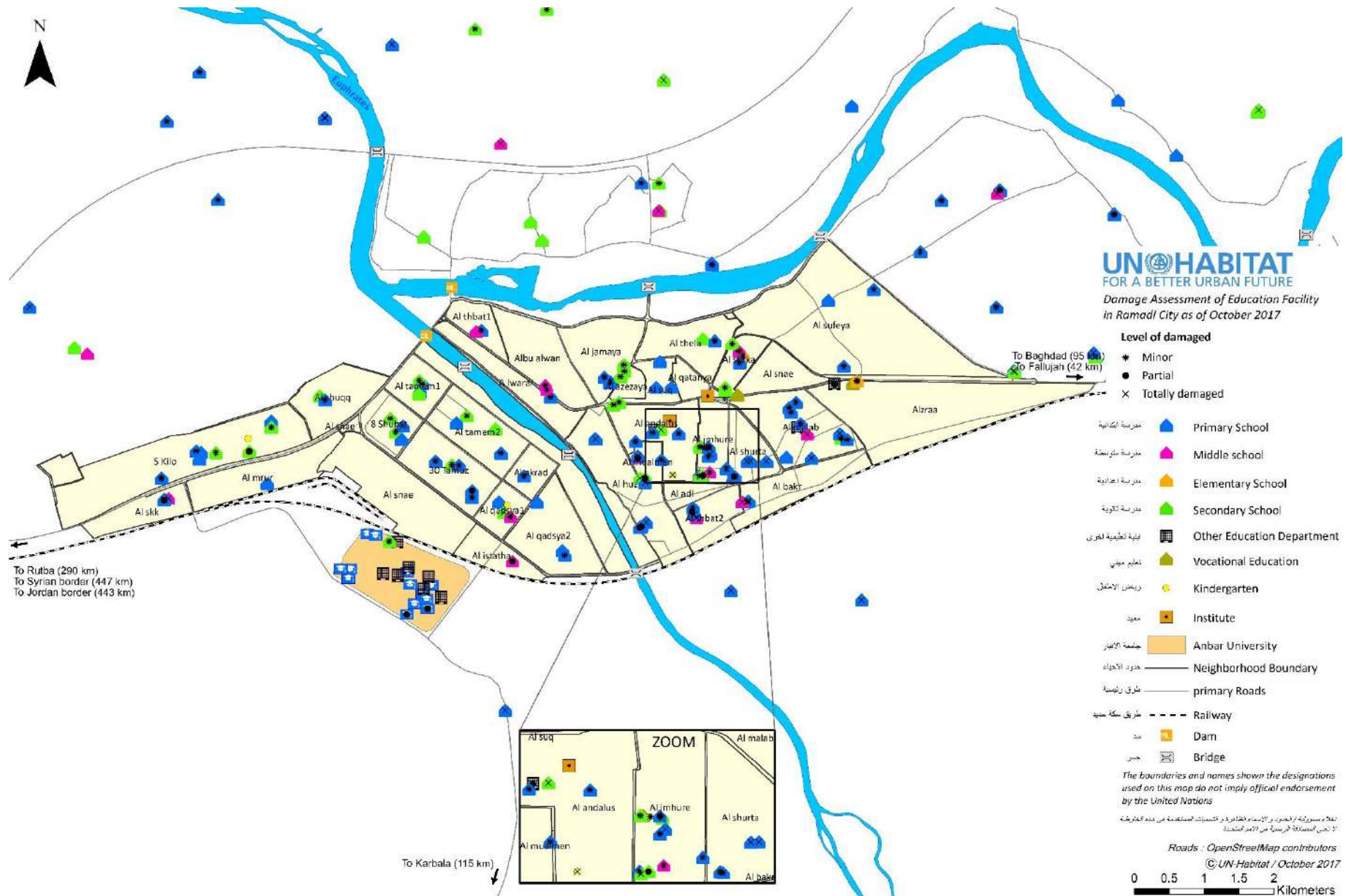
RAMADI

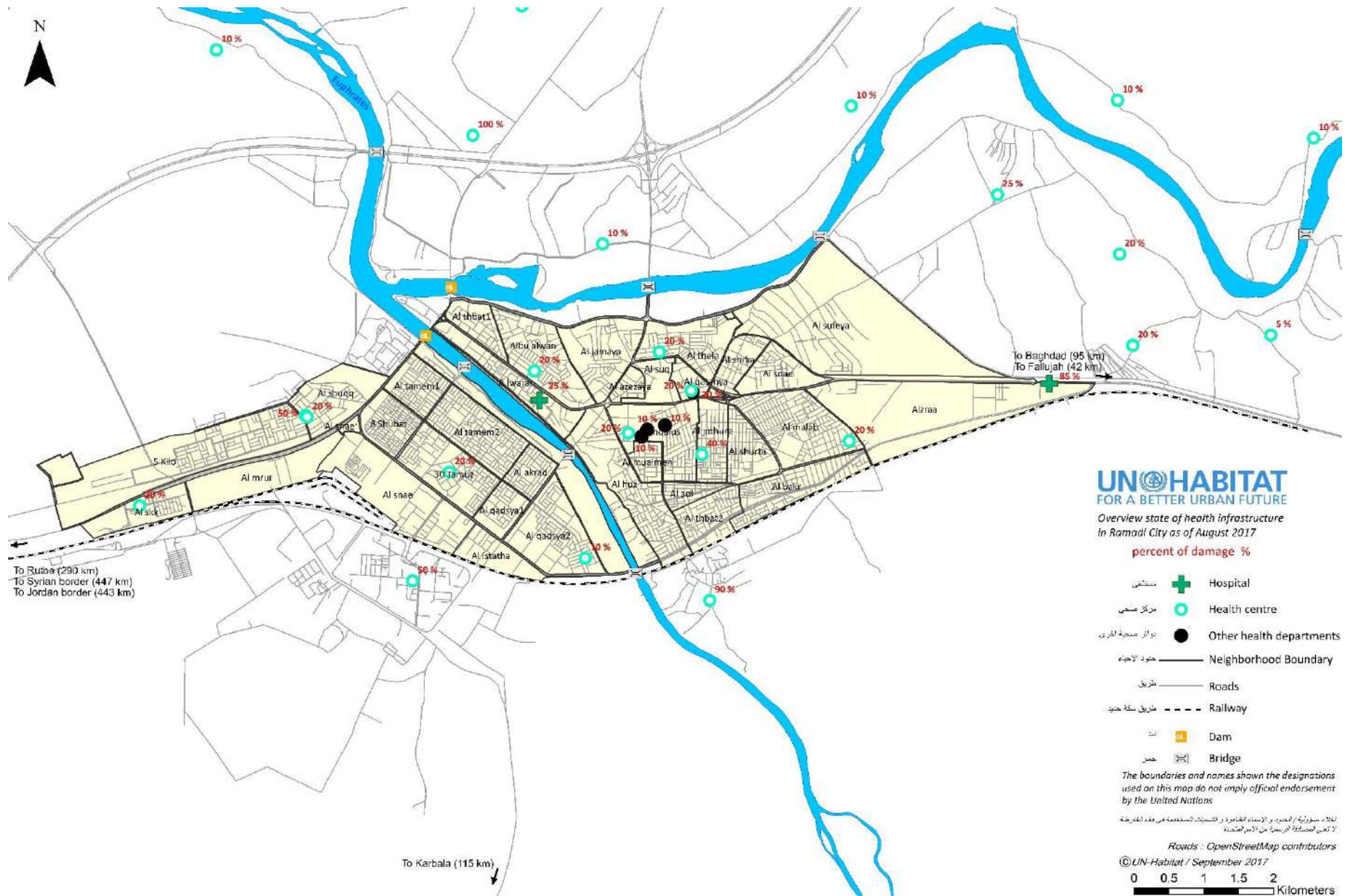
DAMAGE ASSESSMENT

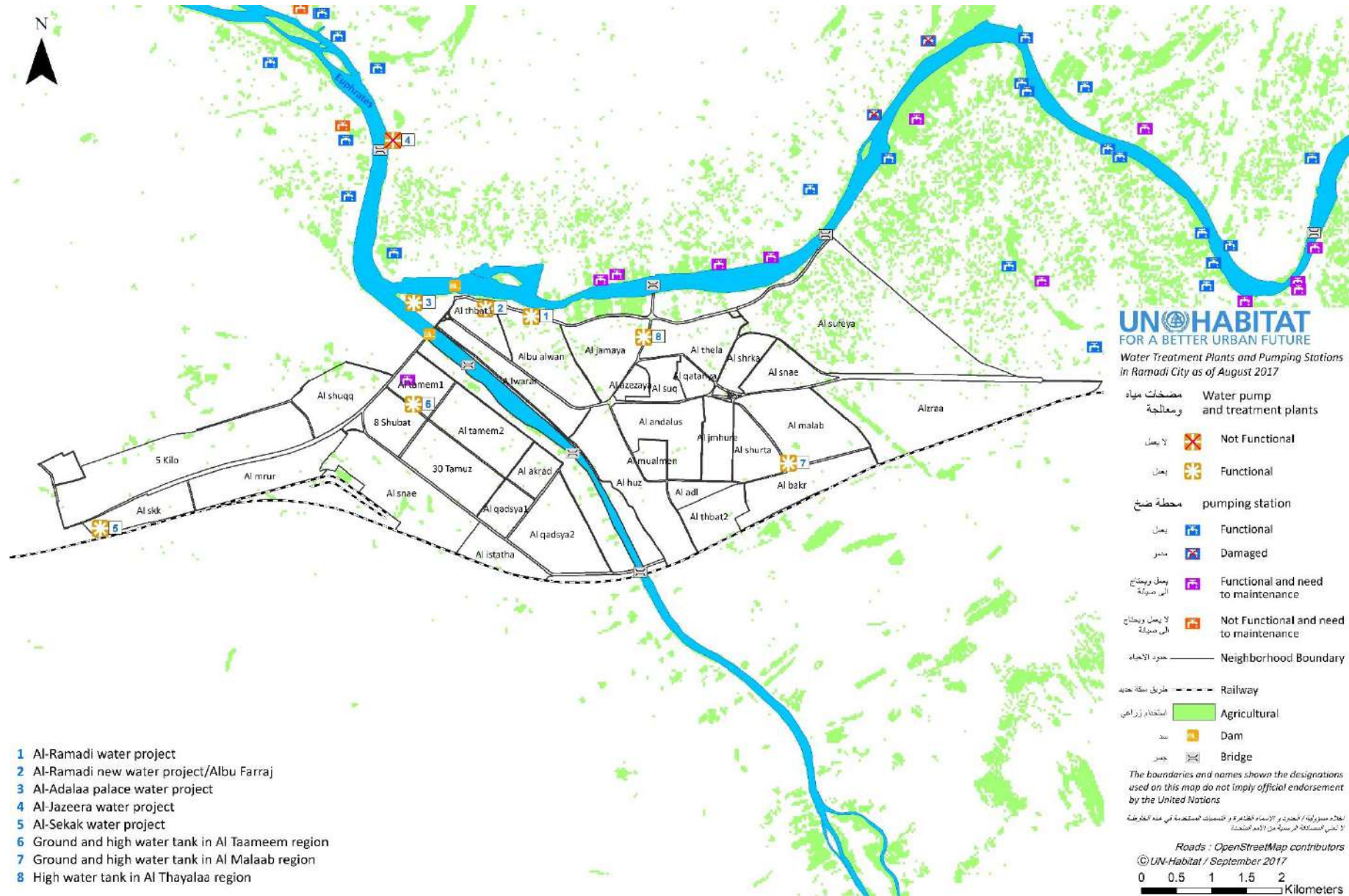
This section illustrates satellite-detected and field assessments of damage and destruction in Ramadi City per sector.

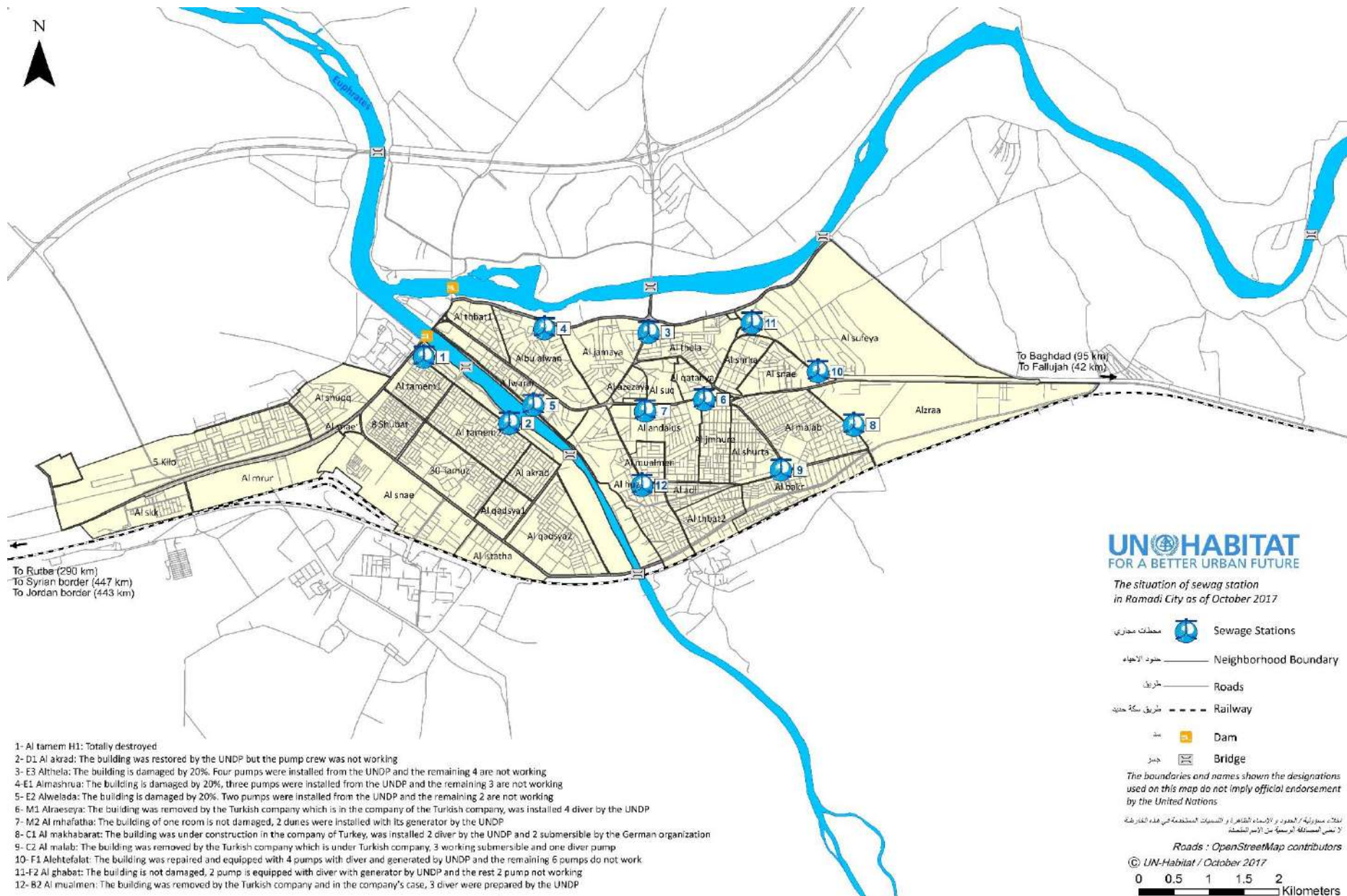




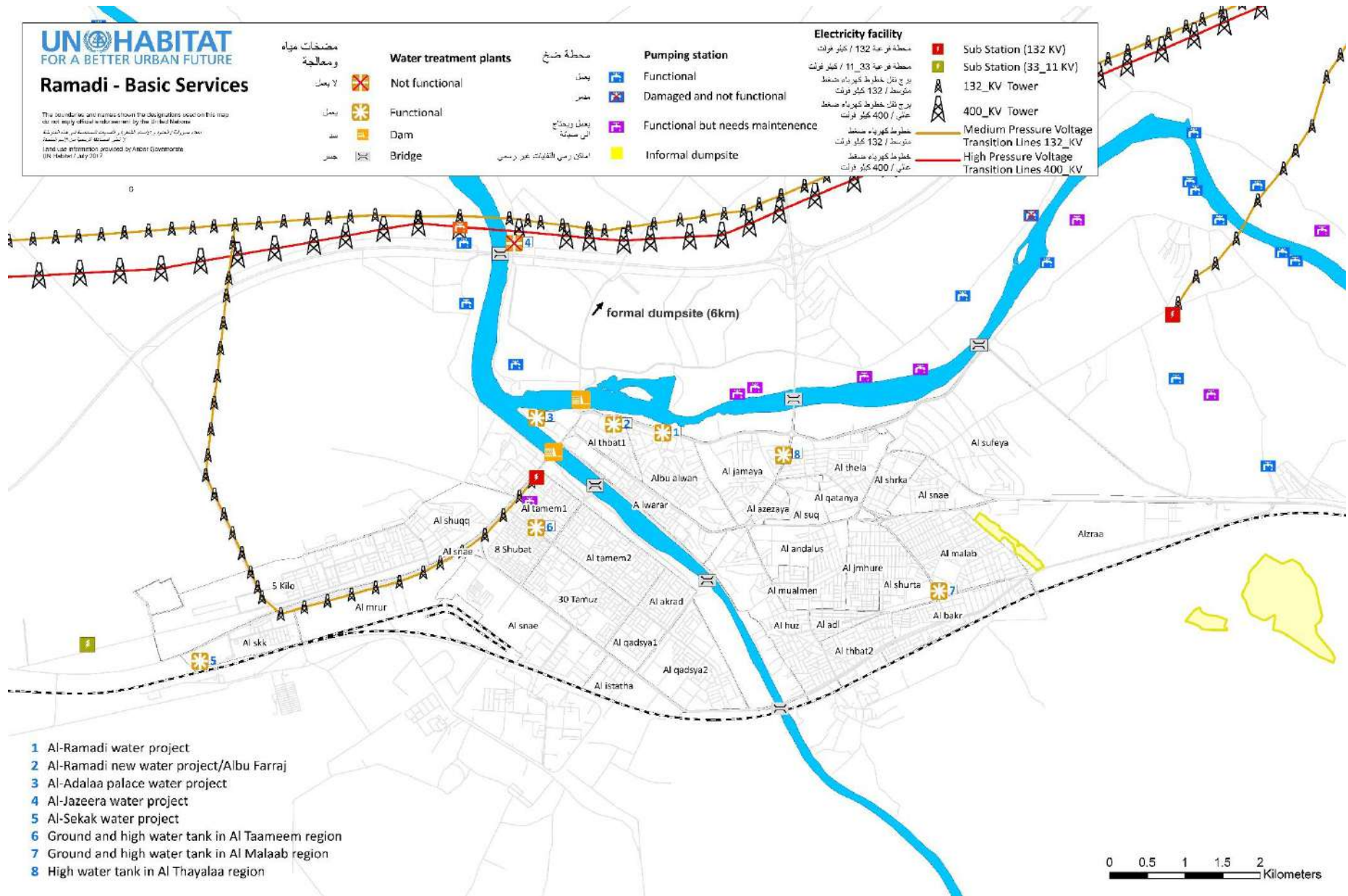








- 1- Al tamem H1: Totally destroyed
- 2- D1 Al akrad: The building was restored by the UNDP but the pump crew was not working
- 3- E3 Althela: The building is damaged by 20%. Four pumps were installed from the UNDP and the remaining 4 are not working
- 4- E1 Almahrua: The building is damaged by 20%, three pumps were installed from the UNDP and the remaining 3 are not working
- 5- E2 Alwelsda: The building is damaged by 20%. Two pumps were installed from the UNDP and the remaining 2 are not working
- 6- M1 Alraesaya: The building was removed by the Turkish company which is in the company of the Turkish company, was installed 4 diver by the UNDP
- 7- M2 Almhafatha: The building of one room is not damaged, 2 dunes were installed with its generator by the UNDP
- 8- C1 Al makhbarat: The building was under construction in the company of Turkey, was installed 2 diver by the UNDP and 2 submersible by the German organization
- 9- C2 Al malab: The building was removed by the Turkish company which is under Turkish company, 3 working submersible and one diver pump
- 10- F1 Alehtefalat: The building was repaired and equipped with 4 pumps with diver and generated by UNDP and the remaining 6 pumps do not work
- 11- F2 Al ghabat: The building is not damaged, 2 pump is equipped with diver with generator by UNDP and the rest 2 pump not working
- 12- B2 Al muallmen: The building was removed by the Turkish company and in the company's case, 3 diver were prepared by the UNDP



NOTE:
Physical Rehabilitation = 90
Houses Rehabilitation and Repair Projects = 6
Public Facility = 84

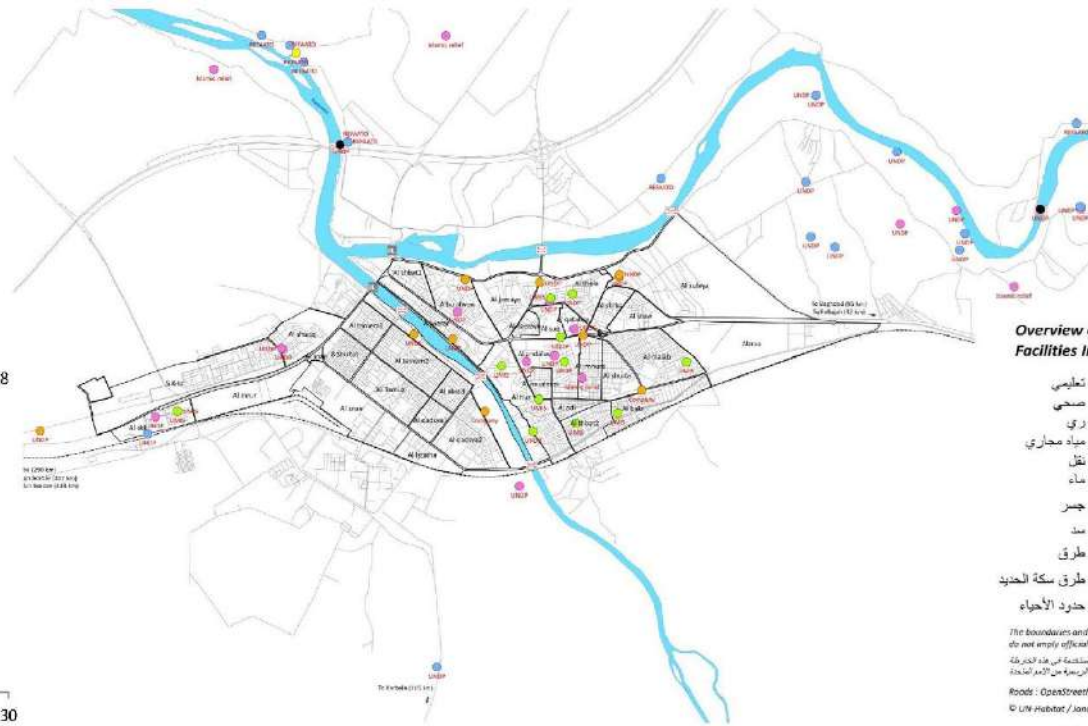
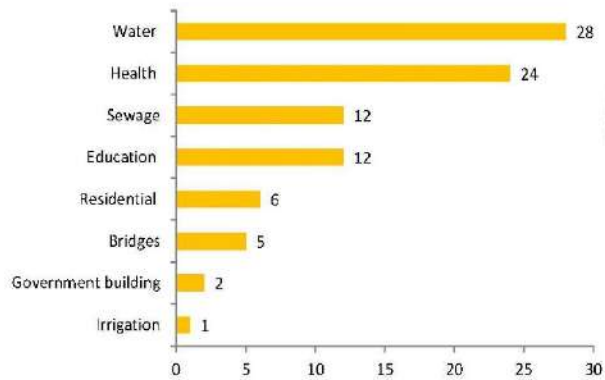
ACRONYMS:
REFAATO = Reconstruction Fund of the Areas Affected by the Terrorist Operations

ISHO = Iraqi Salvation Humanitarian Organization
RIRP = Rebuild Iraq Recruitment Program

RAF = Sheikh Tharif Eln Abdullah Foundation for Humanitarian Services

UIMS = The United Iraqi Medical Society

of Rehabilitation projects



Overview of Rehabilitation Projects of public Facilities Implemented in Ramadi

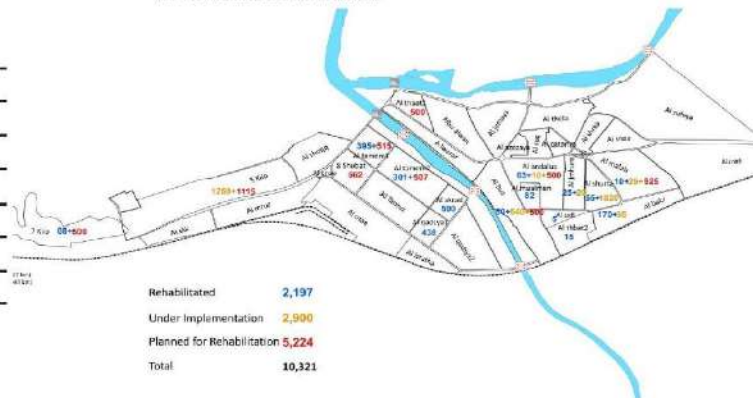
- تعليمي Education
- صحي Health
- ري Irrigation
- مياه محاري Sewage
- نقل Transportation
- ماء Water
- جسر Bridge
- سد Dam
- طرق Road
- طرق سكة الحديد Railway
- حدود الأحياء Neighborhood boundary

The boundaries and names shown the directions used on this map do not imply official endorsement by the United Nations.
تتضمن حدود الأحياء والأسماء الموضحة في هذه الخريطة لأغراض التوضيح ولا تعبر عن أي اعتراف رسمي من الأمم المتحدة.
Roads: OpenStreetMap contributors
© UN-Habitat / January 2018.
0 2.5 5 7.5 10 Kilometers

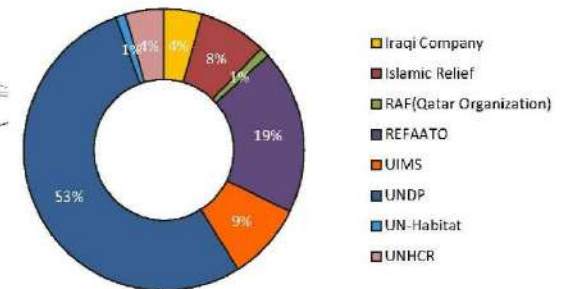
Houses Rehabilitate and Repair Projects

Implementing Agencies	Completed Houses	Under Implementation	Planned for Rehabilitation
UNDP	1,239	2,500	5,224
UN-HABITAT	583		
UNHCR/ MUSLIM AID	265		
UNHCR/ RIRP		400	
RAF	60		
UNHCR/ ISHO	50		
TOTAL	2,197	2,900	5,224

Houses Rehabilitated, Under Implementation and Planned for Rehabilitation in Ramadi



% of Rehabilitation Projects of Public facilities and Housing





**PROPOSED URBAN RECOVERY AND
SPATIAL DEVELOPMENT PLAN**



COMMON TERMINOLOGY

Build Back Better (BBB): The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies, and the environment.

Reconstruction: The medium- and long-term rebuilding and sustainable restoration of resilient critical infrastructures, services, housing, facilities and livelihoods required for the full functioning of a community or a society affected by a disaster, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk (United Nations General Assembly, 2016).

Recovery: The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk. (United Nations General Assembly, 2016).

Recovery Framework: Establishes a common platform for the whole community to build, sustain, and coordinate delivery of recovery capabilities. Describes principles, processes, and capabilities essential to more effectively manage

and enable recovery following an incident of any size or scale. Defines how emergency managers, community development professionals, recovery practitioners, government agencies, private sector, professionals, nongovernmental organization leaders, and the public, can collaborate and coordinate to more effectively utilize existing resources to promote resilience and support the recovery of those affected by an incident. A document that articulates a vision for recovery; defines a strategy; prioritizes actions; fine-tunes planning processes; and provides guidance on recovery financing, implementation, monitoring, and evaluation. An effective recovery framework is not a plan, but rather a strategy that complements the Post-Disaster Needs Assessment process by outlining long-term goals and communicating the shared principles according to which progress will be measured.

Rehabilitation: The restoration of basic services and facilities for the functioning of a community or a society affected by a disaster.

STRATEGIC URBAN RECOVERY AND DEVELOPMENT PLANNING APPROACH

The transitional phase from humanitarian assistance and recovery efforts to sustainable urban development in large post-conflict urban areas such as Mosul, Ramadi and Falluja will entail large, long-term and targeted multi-sectorial investments from both the public and private sectors, with support from multi-lateral agencies and lending institutions. The critical aspects of resiliency and sustainability are today recognized as imperatives for sustainable reconstruction and development.

To be successful, the implementation of the multi-sector recovery and reconstruction plan not only require predictable technical and financial resource commitments for planning, implementation and management, but also need high levels of political commitment and a strong governance framework. To ensure effectiveness and sustainability, local governments need to be included as active partners in the development of a broad-based and long-term reconstruction and shelter strategies from the earliest stages, alongside the prioritisation of economic activities that produce jobs.

1. RECONSTRUCTION & DEVELOPMENT LEVELS.



2. RECONSTRUCTION & DEVELOPMENT APPROACH

10 years intervention span (minimum)

- Levels of damage
- Priorities of each sector
- Availability of resources
- Implementation ability

3. RECONSTRUCTION & DEVELOPMENT PRINCIPLES

It is not compulsory to rehabilitate infrastructure and facilities as they were before – sometimes, they are:

- Not necessary any more (not a current government priority)
- Not sustainable (lack of resources, financially, capacity)
- Obsolete and a new/cheaper/greener technology is available





Suggested Institutional setup to be reviewed by counterparts



- ▲ Coordinating with institutions at central and local level
- ▲ Monitoring Annual Sector Plans and projects by the Directorates
- ▲ Monitoring plans and follow-up works by REFAATO and development agencies
- ▲ Managing a GIS database through which all works can be monitored (*training required*)
- ▲ Monitoring balance of resources across priority sectors
- ▲ Reviewing detailed urban plans, indicators and targets

Building Back better in Ramadi

Disaster impacted countries and communities are oftentimes much better equipped to Build Back Better during the extended period of recovery, rehabilitation, and reconstruction when they have taken actions to strengthen recovery capacity and decision-making effectiveness prior to the onset of disaster.⁷

Well aware of the stakes and expectations involved, the proposed plan will integrate reconstruction priorities with opportunities for “building back better” to assist the local authorities guide future public and private investments, and hopefully provide a useful base to inform any future reviews of the otherwise recent and very well-developed Ramadi Master Plan.

Suggested building back better principles

The principles and approach that the project actively promoted in post-conflict urban areas include:



“One solution will not fit all” when it comes to dealing such a diverse society in terms of religion, ethnic background, cultural values as in Iraq, but in particular when addressing the immediate

housing needs of displaced households, determined by their current hardship conditions, present location, family sizes and how their former houses have been impacted by the conflict. Durable solutions for the sustainable return of IDPs will need to offer a range of assistance mechanisms and housing options.



Community representatives and home owners need to be consulted and engaged in the development of housing solutions to ensure that beneficiaries’ needs are heard, understood and factored in the project;



Rebuilding homes provides the opportunity for owners to adopt climatically-efficient design solutions, such as appropriate building orientation, the reduction of large surfaces of window glazing and shading devices over openings – as well as the use of more performant materials such as cavity walls, hollow clay bricks and blocks, wall insulation panels heat-reflective paint for walls and roofs etc;



Locally-sourced materials produced by the Iraqi construction industry should be preferred over imports so as to stimulate the local economy and create entrepreneurship

opportunities and innovation, as well as reducing the environmental footprint of on-going reconstruction activities (bearing in mind that the choice of construction materials in donor-driven and self-help projects is most typically driven by budget considerations and that imports are often cheaper than Iraqi products);



The use of renewable energy technology, such as the off-grid solar power water heaters and photovoltaic panels, will not only reduce residents’ dependency on patchy grid coverage and generators, but will also help Iraq curb its greenhouse gas emissions and meet its GHG reduction targets by 2035;



The need to ensure the protection of Housing, Land and Property (HLP) rights, in consideration of the large-scale number of residents that fled their homes without documentation and emerging cases of organised distribution of vacant homes to ISIL families, forced evictions and sales under duress, as well as cases of barred returns or “compensatory reassignment” in ethnically disputed areas.

⁷ UNSDR: Build back better in recovery, rehabilitation and reconstruction 2017.

RAMADI STRATEGIC RECOVERY & SPATIAL DEVELOPMENT

6 PROPOSED PROGRAMMES FOR CONSIDERATION

The recently concluded Kuwait International Conference for the Reconstruction of Iraq, has seen some USD 30 billion pledged as donations, loans and investments to support the country's investments in infrastructure, public services, housing and industries. While it is assumed that more funds will be committed for the reconstruction of Iraq in the coming months, it can be argued that it will not be donations but investors who hold the key to Iraq's recovery, create jobs, and contribute to the sustainable economic growth of the country.

It is with this consideration in mind that the UN-Habitat team is supporting the local authorities in Ramadi to draft a strategic spatial plan that will focus on urgent reconstruction needs as well as key developmental aspects that go beyond restoring pre-conflict conditions. Aware of the stakes and expectations involved, the proposed plan will integrate reconstruction priorities with opportunities for "building back better" to assist the local authorities guide future public and private investments, and hopefully provide a useful base to inform any future reviews of the otherwise recent and very well-developed Ramadi Master Plan.

Recommended recovery and development programmes for Ramadi in a 'nutshell':



01 SCALING UP HOUSING RECOVERY AND NEIGHBOURHOOD UPGRADING

CONTEXT

People in Ramadi typically live in single housing units (96%); only 4% live in apartment blocks. Prior to 2014, around 30% of buildings were of relatively recent construction, between 20-30 years old, followed by 41% of buildings built in the last 20 years. Only a few buildings dated back to the 1970s or earlier. The majority of households lived in their own properties (80%), with 15% renting and a recorded 1,5% illegally occupying other people’s properties. Residential plot allocations in Ramadi are notoriously generous: 50% range from 200 to 400 sqm, 33% range from 100 to 200 sqm, and nearly 10% range from 400 to 800. Construction materials varied, with nearly 60% of houses built in stone and 33% in bricks and only 3% in cement blocks. Pre-2014 challenges included: low density, large households size and high overcrowding rates.

Through a combination of satellite damage assessments and surveys on the ground, UN-Habitat has found that over 12,000 houses were damaged during the conflict with Da’esh. In line with the categories agreed by humanitarian actors and approved by the Shelter Cluster, damage has been classified as follows: 9% have

suffered negligible damage (2,000 houses); 23% have been affected by minor damage (4,874 houses); 18% have suffered major damage (3,865); 10% have been severely damaged (2,100); and 6% have been destroyed (1332). The damage to some neighbourhoods, such as Baker and Aramel, exceeded 80%.

Over the course of the past 2 years, nearly 2,200 housing repairs and rehabilitation interventions have been undertaken by development agencies and local NGOs. These include: UNDP/FFIS/FFES, UN-Habitat, and NGOs such as the Iraqi Salvation Humanitarian Organization (ISHO) and Rebuild Iraq Recruitment Program (RIRP) – both of which were funded by UNHCR – Islamic Aid, and Sheikh Thani Bin Abdullah Foundation for Humanitarian Services (RAF).

As of mid-February 2018, some 2,900 house interventions are on-going and over 5,200 are in the pipeline. By the end of the planned interventions, over 10,321 houses will have been repaired.

While Anbar Governorate still hosts over 92,000 IDPs (95% are internally displaced within the governorate and the rest from Babylon, Baghdad, Kirkuk, Ninewa and Salah al-Din), by January 2018 it recorded over 1,2 million returnees (36%) . Ramadi alone has seen the return of nearly 457,500 individuals overall (14%), the majority of which has gone back to their habitual residence.

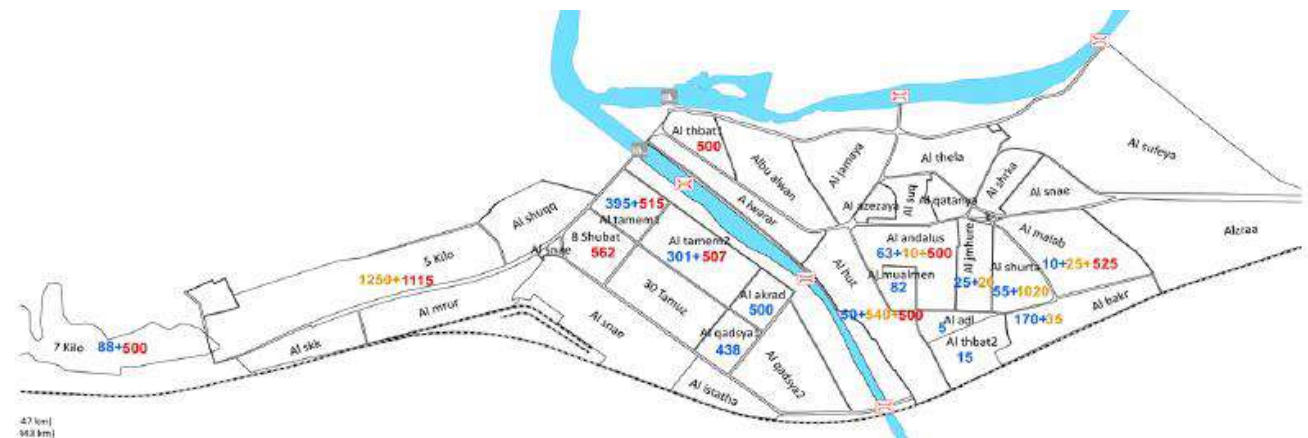


Figure 5: Map of who is repairing what in the housing sector in Ramadi. Legend of the numbers: ■ Houses rehabilitated, ■ Under implementation, ■ Planned for rehabilitation

Housing Finance

In order to facilitate the return of those who are still displaced, the next critical step is to address the large gap in the on-going housing rehabilitation interventions in assisting those whose homes have been structurally damaged or completely destroyed – which constitute around 15% of the total housing stock (3,450 houses). To tackle this issue, UN-Habitat is looking into the required criteria and conditions for assisting a government-led scaling up of reconstruction through MOMCH’s Iraq Housing Fund. A self-help ‘incremental housing’ approach made possible by conditional 10-year housing loans. An incremental loan packages could envisage a first disbursement of \$12,000 for a Core Housing Unit (35 sqm), followed by a second \$12,000 to finance further housing expansions (70 sqm) – if required.

Such approach would trigger a large number of small-scale and citizen-led reconstruction initiatives, which will further support the growth of private construction companies in Ramadi, providing much-needed jobs and building skills. Assisted housing loans could be piloted by the GoI in Ramadi and replicated in other governorates.

It would be worthwhile exploring how government loans could even provide a possible solution to the sensitive issue of cash

compensation that has been promised to those whose homes have been damaged by war. Government housing assistance to individual loan holders delivered through monthly contributions would help home owners to reimburse the monthly loan instalments to the Iraq Housing Fund as per their repayment agreement (\$100-200); and would allow the government to spread compensations over the course of the next 10 years. Contributions do not have to necessarily cover the entirety of the monthly instalment, but could cover a percentage to be defined by the number of potential applicants and available resources.

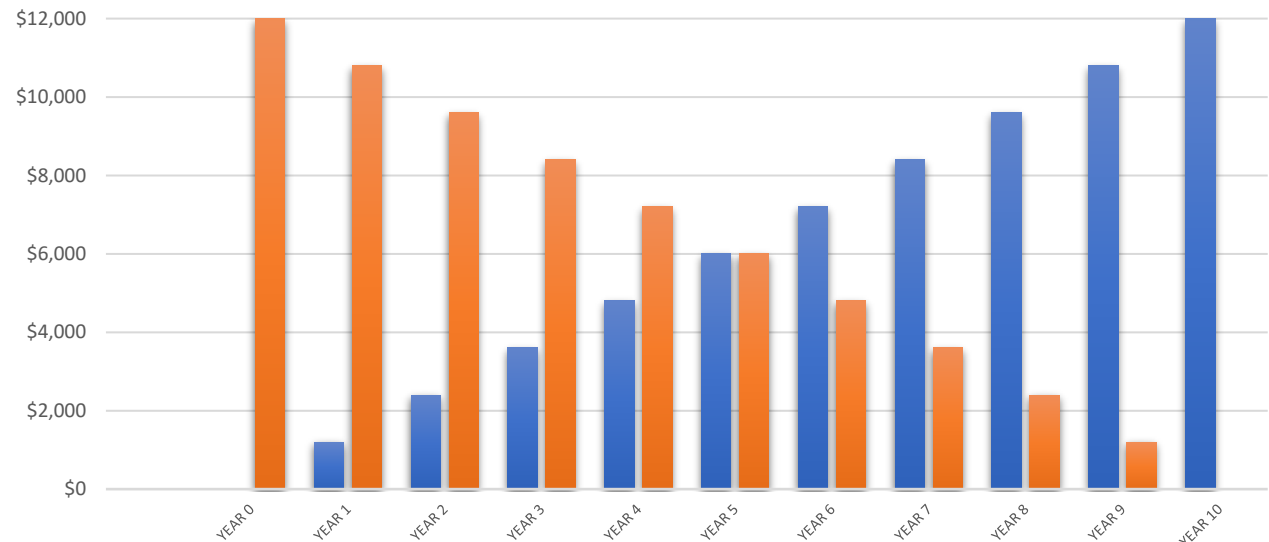
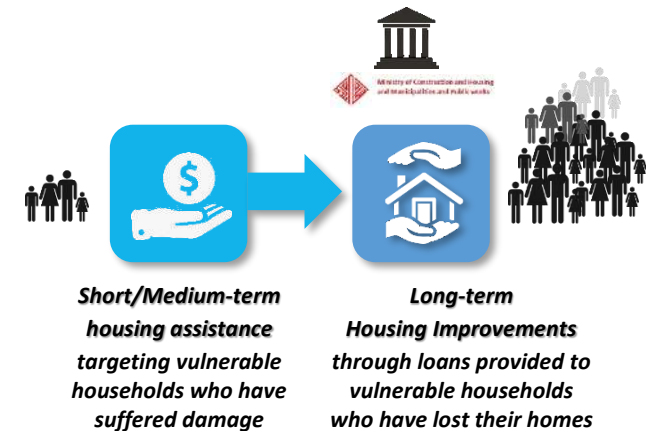


Figure 6: Diagram illustrating the proposed loan repayments over a 10-year span

CORE HOUSING

Core Housing: also known as a “starter house”, it is designed to accommodate the minimum requirements of a typical family (at least one living space and water and sanitation, between 35-45 sqm), and is designed to be extended incrementally by the household when they have the resources. It should be constructed on a plot of sufficient size to accommodate the extensions and with a structure that allows horizontal as well as vertical development. It can be provided on a new housing site (usually by government) or *in situ* (usually by home owners). We plan to explore the possibility to propose the *in-situ* solution for home owners of destroyed property.

- The incremental home is built around a 2 x 2m modular structure which can expand laterally or vertically, or both.
- Opportunity to open a commercial or corporate activity (shop, office, gym, storage, etc) on the street front and connected to the house.
- The core incremental housing concept therefore is an opportunity to offer a "menu" of layout options with different price tags.
- Allow for the indoors life to expand outdoors (covered terraces, exterior kitchen, clothes lines, etc.)

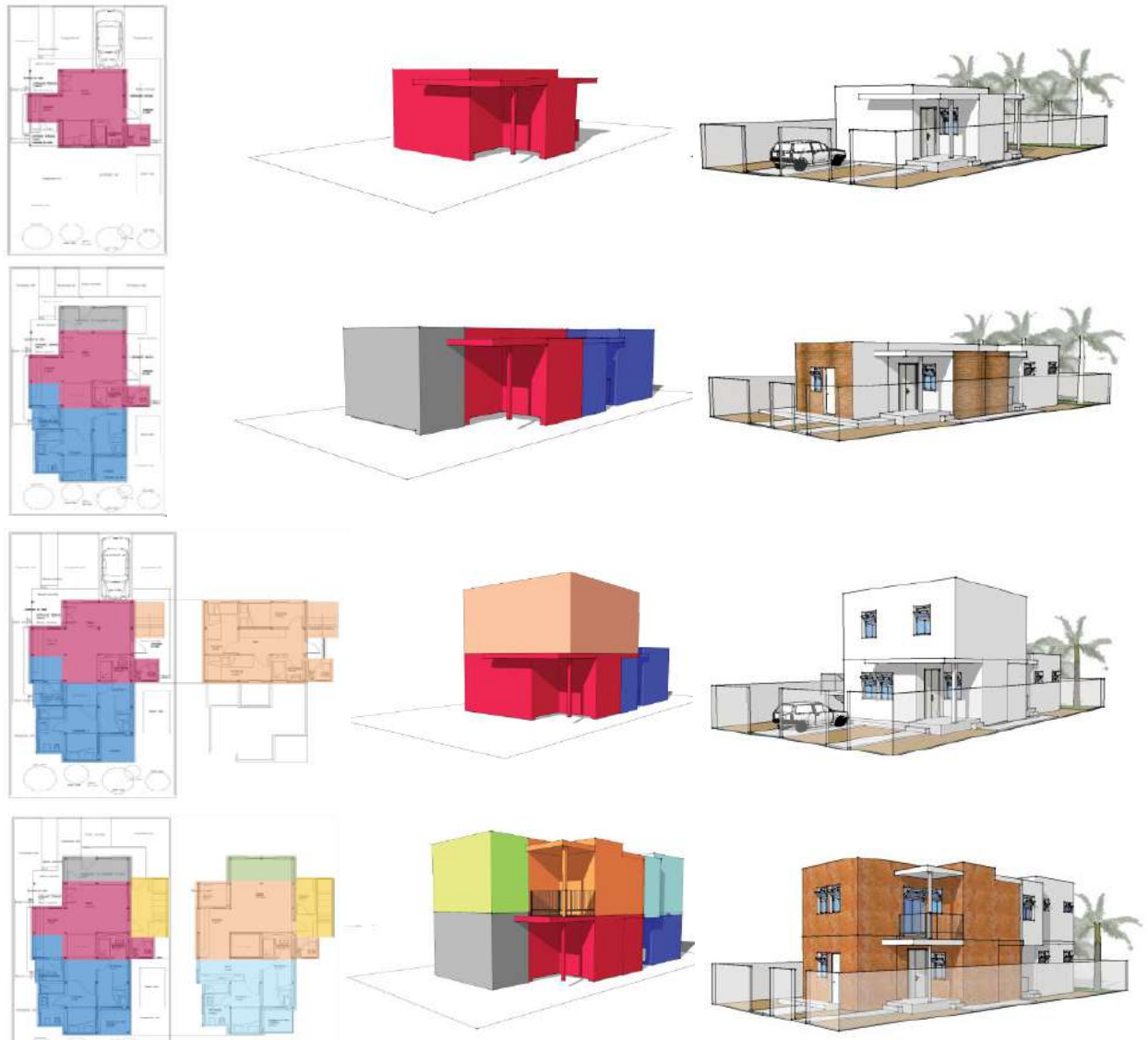




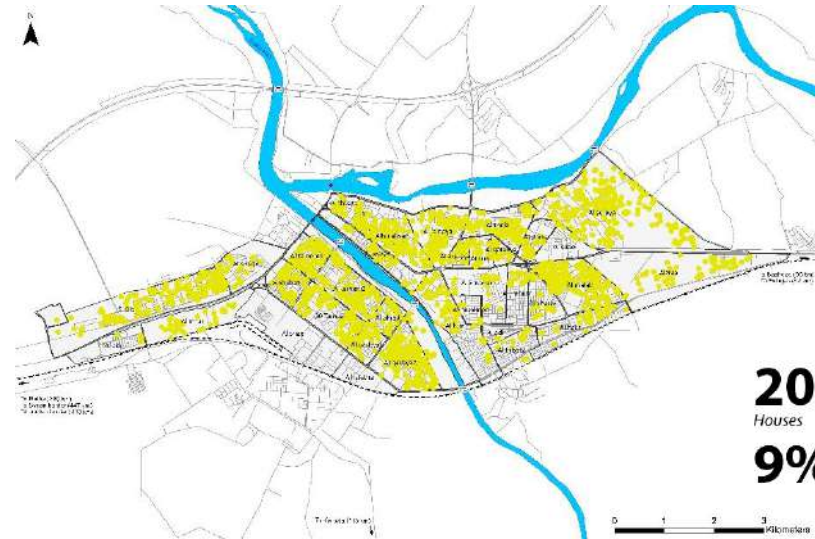


Figure 7 Illustration of Core Housing Concept ©UN-Habitat/Natacha Rohmer

NEGLIGIBLE DAMAGE

LEVEL 0

Structural Elements		Walls and loadbearing elements <i>No damage caused by war activities OR Damage limited to external finishes or boundary walls</i>
		Roof slab and roof covering <i>Slight cosmetic/external war traces to roof or parapets (bullet holes, superficial shell damage)</i>
External		External Windows and doors <i>Slight cosmetic/external war traces to roof or parapets (bullet holes, superficial shell damage)</i>
Internal		walls, floor finishes, water and electricity <i>None, OR Slight internal damage due to overuse/overcrowding or limited damage to internal floor and wall finishes, No fire damage</i>



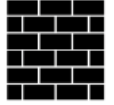



2000
Houses
9%

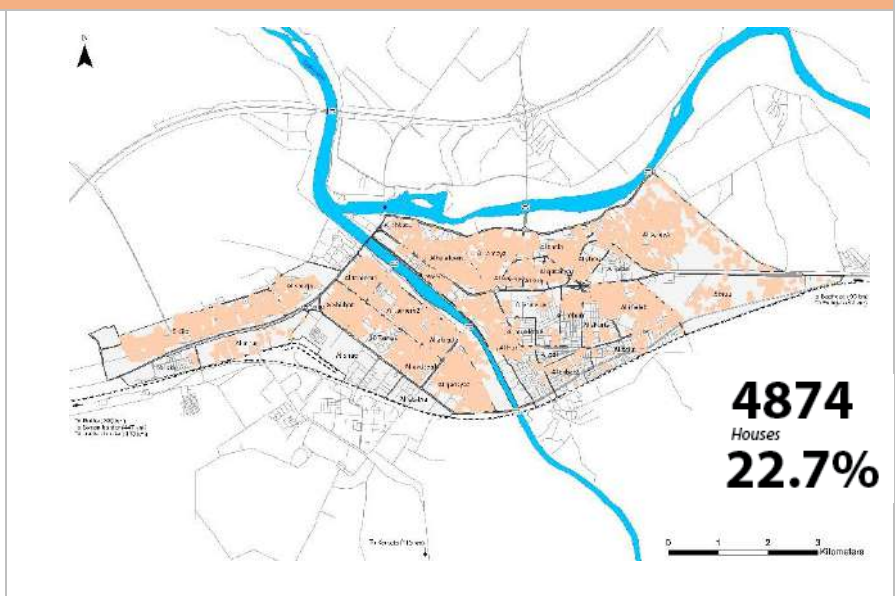
Housing assistance modalities & recommended options

Paints and small repairs
Most of the houses that is damaged have been or will be restored by the owner and no need to be supported or considered in future plans.



MINOR DAMAGE - Houses with limited damage to walls, doors, windows.

LEVEL 1	Structural Elements	 Walls and loadbearing elements <i>Slight/superficial cracking with no observable deformation of structural elements OR Limited mortar and shell perforations to walls</i>
		 Roof slab and roof covering <i>Limited mortar and shell perforations to roof or parapets</i>
	External	 External Windows and doors <i>Minor damage to windows and frames. External doors missing, or damaged</i>
	Internal	 walls, floor finishes, water and electricity <i>Slight internal damage due to overuse/overcrowding or limited war damage to internal floors and walls</i>








Housing assistance modalities & recommended options

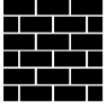



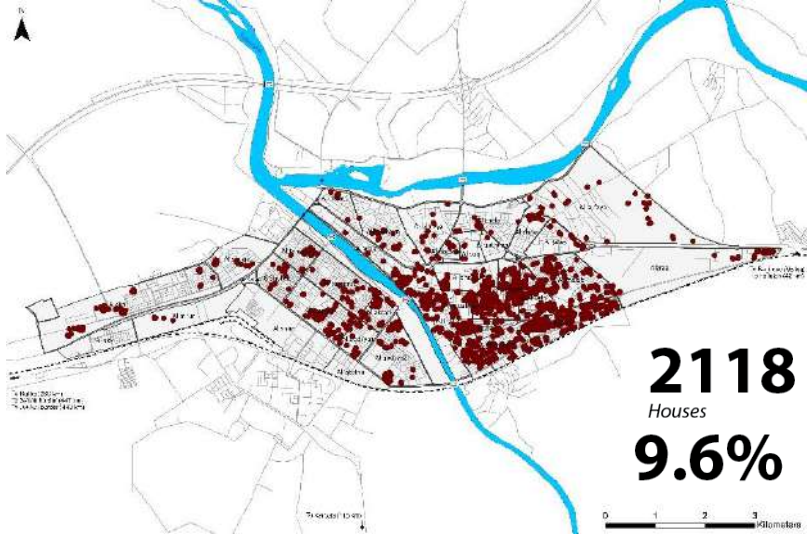
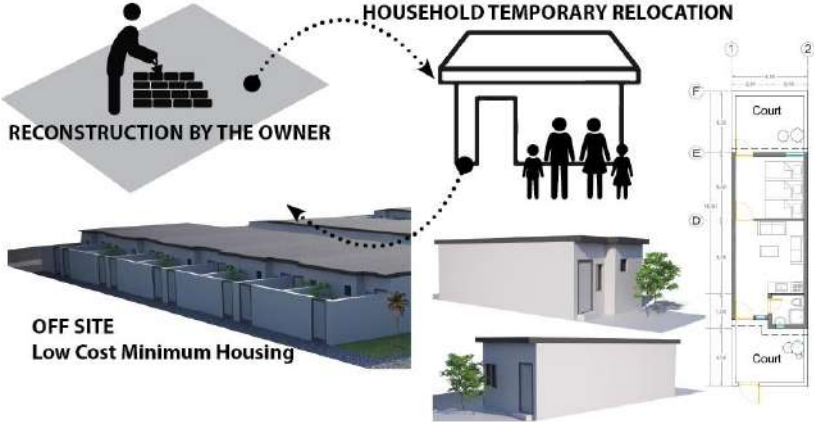
Self-help weather Proofing & small repairs

The use of Cash Vouchers/Cash-for-Work for small self-help repairs, including plumbing, electricity wiring, weather proofing and substitution of destroyed windows & doors. This modality allows for swift action and benefits a wider number of beneficiaries – including tenants. Quality of materials may depend on their availability in local markets. To avoid the use of poor quality or unsafe materials, beneficiaries will be supported by on-the-spot technical advice, while the Vouchers may be issued in two consecutive amounts, conditional to the advancement of the works. Small repairs, which constitute 20% of the housing assistance budget, could improve the living conditions in some 1,500 housing units, helping an estimated 9,000 people.

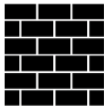



MAJOR DAMAGE - Houses with extensive damage, but no structural damage		
LEVEL 2	<div style="display: flex; align-items: flex-start;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; padding-right: 10px;">Structural Elements</div> <div style="flex: 1;"> <div style="margin-bottom: 10px;">  <p>Walls and loadbearing elements <i>Extensive shell perforation, No observable deformation of structural elements</i></p> </div> <div>  <p>Roof slab and roof covering <i>Minor damage by shells penetrate roof, but roof structure is otherwise intact, not buckling.</i></p> </div> </div> </div>	 <p style="font-size: 24px; font-weight: bold; margin-top: 20px;">3865</p> <p style="font-size: 18px; margin-top: 5px;">Houses</p> <p style="font-size: 24px; font-weight: bold; margin-top: 5px;">17.7%</p>
	<div style="display: flex; align-items: flex-start;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; padding-right: 10px;">External</div> <div style="flex: 1;">  <p>External Windows and doors <i>Damage to window frames, external doors missing or damaged</i></p> </div> </div>	
	<div style="display: flex; align-items: flex-start;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; padding-right: 10px;">Internal</div> <div style="flex: 1;">  <p>walls, floor finishes, water and electricity <i>Internal spaces damaged by shells, Damage across multiple floors. Fire damage can be repaired</i></p> </div> </div>	
<p>Housing assistance modalities & recommended options Repairs and basic construction works through community builders On the basis of the area-based assessments, the team will identify and profile local community builders that are able to undertake construction works on identified houses in need of modest but professional repairs in close coordination with the owners.</p> <p>Rehabilitations through local contractors including WASH Building upon the extensive housing rehabilitation that UN-Habitat has mustered in damaged towns such as Sinooni and Ramadi, the team will deploy local contractors to conduct repair and construction works.</p>		
		


SEVERE DAMAGE - Houses with extensive damage, but no structural damage.


LEVEL 3	<div style="margin-bottom: 10px;">  <p>Walls and loadbearing elements <i>Structural damage involving several loadbearing members, significant cracking with observable permanent deformations of the structural elements</i></p> </div> <div style="margin-bottom: 10px;">  <p>Roof slab and roof covering <i>Damage by large shells penetrating roof. Engineering solutions required to conduct structural repairs of roof.</i></p> </div> <div style="margin-bottom: 10px;">  <p>External Windows and doors <i>Damage irrelevant if structure is compromised</i></p> </div> <div>  <p>walls, floor finishes, water and electricity <i>Severe fire damage that can be repaired but so widespread that renders the house inhabitable</i></p> </div>	 <p style="font-size: 24px; font-weight: bold;">2118</p> <p>Houses</p> <p style="font-size: 36px; font-weight: bold;">9.6%</p>
	<p>Housing assistance modalities & recommended options.</p> <p>Rehabilitations through local contractors including WASH</p> <p>Building upon the extensive housing rehabilitation that UN-Habitat has mustered in damaged towns such as Sinooni and Ramadi, the team will deploy local contractors to conduct repair and construction works. The interventions, which may include the upgrading of water, sanitation and hygiene (WASH) facilities and electrical works.</p> <p>Low-cost minimum/affordable housing unit</p> <p>Can either provide (a) a temporary housing solution for home owners while they rebuild their permanent homes or (b) a long-term social/affordable housing solutions for vulnerable people and tenants who cannot go home.</p>	 <p style="text-align: center;">HOUSEHOLD TEMPORARY RELOCATION</p>

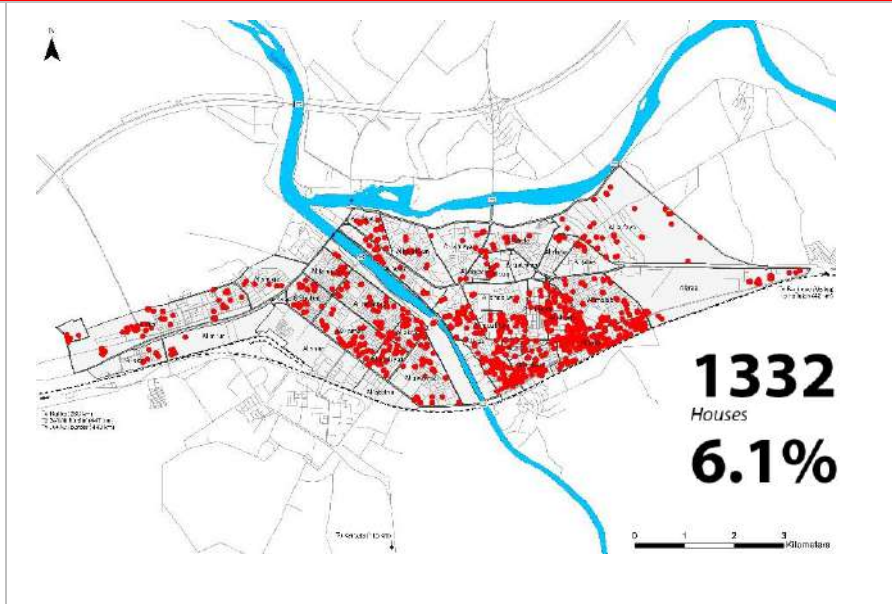
SEVERE DAMAGE - Houses with extensive damage, but no structural damage.

- LEVEL 4**
- 
Walls and loadbearing elements
Totally in rubble, complete failure of two or more major structural components, Extensive cracking or loss of material with gross local or overall deformations

 - 
Roof slab and roof covering
Partial or complete collapse of roof, excessively deflected roof, weakened structure at risk of collapse

 - 
External Windows and doors
Damage irrelevant if structure is compromised

 - 
walls, floor finishes, water and electricity
Non-repairable fire damage, affecting structural members



Housing assistance modalities & recommended options

core housing - in situ
 “starter house”, it is designed to accommodate the minimum requirements of a typical family (at least one living space and water and sanitation, between 35-45sqm), and is designed to be extended incrementally by the household when they have the resources.

Housing Finance Mechanism
 The government to facilitate home owners’ access to loans provided by the Iraq Housing Fund (in line with the Iraq Housing Policy). Vulnerable households could apply for a 1st loan at favourable conditions for a core house in situ and then – depending on their financial capacity/ability to repay/progress of the works – they could apply for a 2nd loan for house expansions. Depending on the availability of funds, non-vulnerable households should also have right to access to housing finance.



INTERVENTIONS REQUIRED FOR REHABILITATION AND RECONSTRUCTION OF AFFECTED HOMES ACCORDING TO LEVEL OF DAMAGE, AND IDENTIFY FUNDING MODALITIES			
Level of Damage: severe 2109 and destroyed 1329			
Funding source: Housing Fund & donors			
The highest and lowest value of the loan for one house	Possible construction area for each house, Based on the loan value.	The total amount of loans for all houses	Comments and recommendations
<p>30,000,000 Iraqi Dinar Equivalent to \$ 24,000</p> <p>The amount above represents the highest value of the loan and is released only to families that have Guarantees to repay the loan instead of mortgaging the land.</p> <p>The minimum value of the loan is 15,000,000 dinars equivalent to \$ 12,000 Will be given to Families who do not have a guarantee to pay the loan (only mortgage the value of the land)</p> <p>The loan amount shall be paid in proportion to the size of the building executed</p>	<p>69 Square meters (for those receiving the upper limit of the loan). It is calculated as follows: ($\\$ 24000 \div 350$ \$)</p> <p>34.5 Square meters (for those receiving the minimum loan). This is an appropriate area as a first stage supported by the loan (according to the principle of (CORE HOUSING)). Later, the owner of the house can expand the house, After payment of the loan, according to the need or expansion of the family, And the evolution of his income. It can be built in stages using the old design of the house or new typical designs that increase the efficiency of the exploitation of the land and facilitate the work of future expansions.</p> <p>Receipt of the loan and follow-up implementation is carried out by the owner of the land, the municipality and United Nations organizations can provide technical support and facilitate the requirements for obtaining the loan, and access to building materials</p>	<p>Top value \$ 82,512,000</p> <p>(Calculated for the construction of all the houses covered and the highest value of the loan per house ($\\$ 3,438 \times 24,000$ \$)</p> <p>Minimum value \$ 61,884,000</p> <p>(Calculated on the basis of half the number of houses receive a loan with the value of the upper limit, and the remaining half of the minimum loan). This account is more realistic, responds to the minimum requirement, and is commensurate with the ability to repay the loan</p>	<p>Implementation and funding stages are determined by:</p> <ul style="list-style-type: none"> • Amount of funding available • Operational capacities available in the governorate. • The number of houses available for the temporary housing of the families of the destroyed houses until the completion of their repair. • The need to build houses with low cost of fixed materials (the spaces of the house and its facilities within the minimum acceptable according to Iraqi standards) for moving families during the period of reconstruction of their destroyed homes. The municipality can later use them to house the poor or to rent a facilitator. Financing home construction is done by donors. The municipality shall provide the land and deliver the services to the site. • Need to encourage investors and real estate developers (From the people of the city) ,to build integrated residential blocks (to reduce costs and ensure speed) The municipality shall be the guarantor and facilitator (between the owners and the contractors and the housing fund),The municipality and the local authorities should provide incentives to encourage citizens to resort to this method, such as (giving precedence in the loan) and encourages contractors and citizens with facilities (for example, Remove the debris for free, facilitating the procedures of assignment and contracting.

Recommended actions:**HOUSING REHABILITATION**

- ↘ Ensure the **consistency of household vulnerability criteria** for humanitarian assistance across all agencies providing housing assistance.
- ↘ Monitor **progress of UN agencies and NGOs** providing housing assistance and push them to complete the rehabilitation works as planned (5,200 houses).
- ↘ Mobilise the Anbar Directorate of Construction & Housing staff to work closely with Governorate to promote MOMCH's **Iraq Housing Fund loans to private citizens** whose houses are completely destroyed (*UN-Habitat technical assistance could be made available*)
- ↘ Support the **construction of affordable housing units** that could provide a temporary housing solution for vulnerable households who live in un-inhabitable/insalubrious or unsafe shelter while rebuilding their homes.
- ↘ Promote the concept of Core Housing to be extended incrementally by the household when they have the resources.
- ↘ Monitor progress of housing rehabilitation activities in close coordination with MOP to input the data in **GIS database** in Anbar Governorate and transmit to the *Recovery*,

Reconstruction and Resilience Platform (RRRP) in MOP**LIVELIHOOD OPPORTUNITIES**

- ↘ Introduce some degree of land use flexibility to **introduce mixed-uses** to include commercial and service activities in residential areas to increase livelihood opportunities for unemployed

ENERGY EFFICIENCY & RENEWABLES

- ↘ Enhance and **enforce existing building codes** to improve safety of construction practices
- ↘ Encourage the use of **appropriate design for hot and arid climates**, including reduced glass panes and overhangs over wall openings
- ↘ Introduce **energy efficiency targets** to increase the thermal performance of walls, roofs and windows of all commercial and public buildings – and stimulate the construction industry as a whole to innovate in the building sector.
- ↘ Promote the **use of renewable energy appliances for domestic and industrial uses** solar water heaters and panels to provide renewable energy for areas subject to insufficient electricity coverage or frequent power cuts.

CONSTRUCTION MATERIALS

- ↘ Encourage the use of **natural stone for construction** through subsidies/reduced taxes

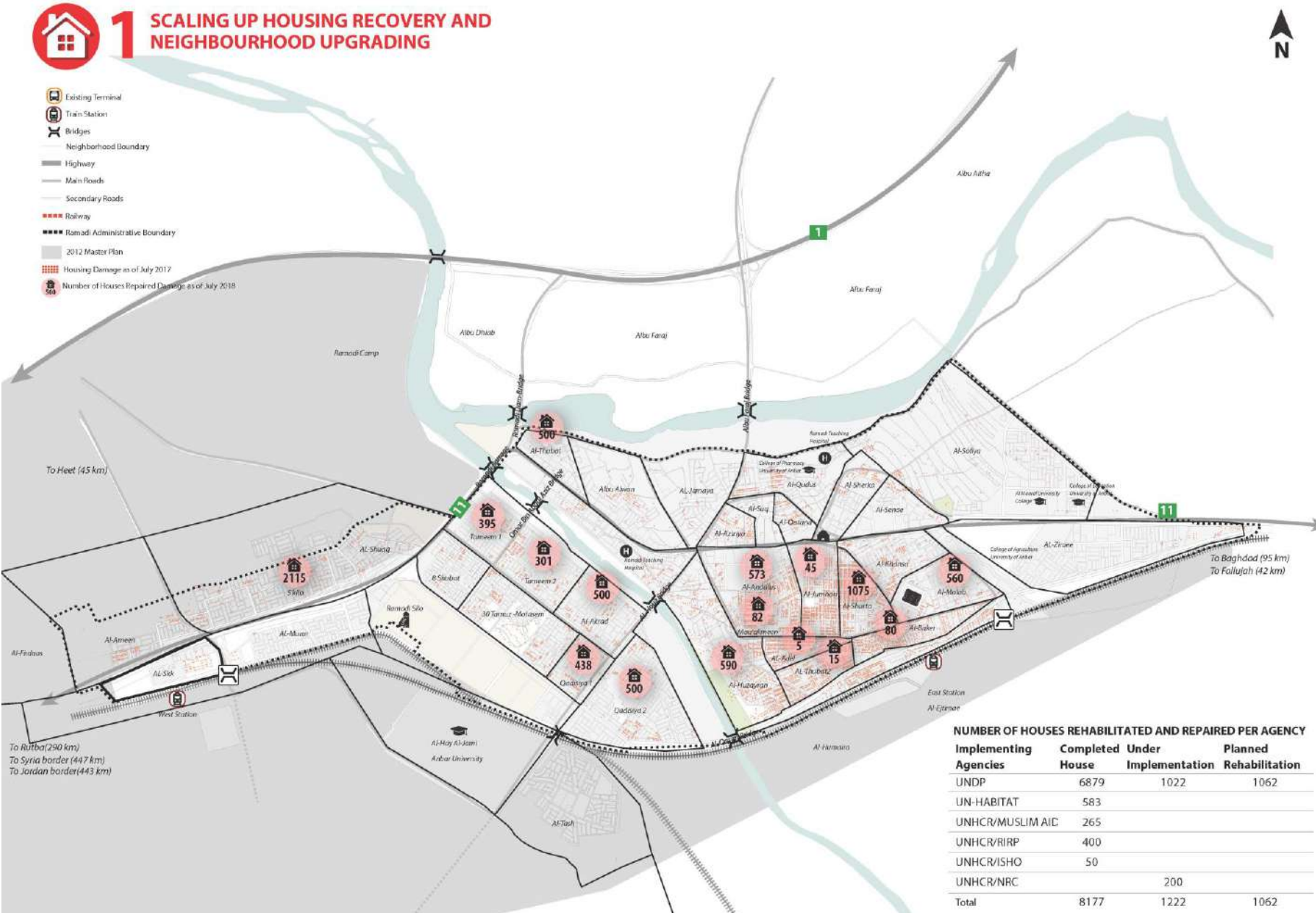
to producers and traders to promote the use of local materials.

- ↘ Develop options for recycling construction debris by segregation of waste to reuse, better accessibility and cutting down transportation costs as well as Identify sites for safe disposal.

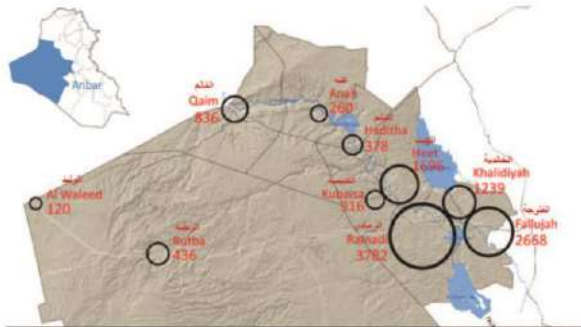
URBAN PLANNING

- ↘ Introduce some degree of land use flexibility to encourage mixed-uses to include commercial and service activities in residential areas to increase livelihood opportunities.
- ↘ Introduce more flexible zoning and land use measures to allow urban densification along transportation routes (ToD).

1 SCALING UP HOUSING RECOVERY AND NEIGHBOURHOOD UPGRADING



01 RECOMMENDED ACTIONS AND ILLUSTRATIVE EXAMPLES



1 Monitor progress of UN agencies and NGOs providing housing assistance and push them to complete the rehabilitation works as planned.



2 Develop options for recycling construction debris by segregation of waste to reuse, better accessibility and cutting down transportation costs as well as Identify sites for safe disposal.



3 Support the construction of affordable housing units that could provide a temporary housing solution for vulnerable households who live in unsafe shelter while rebuilding their homes.



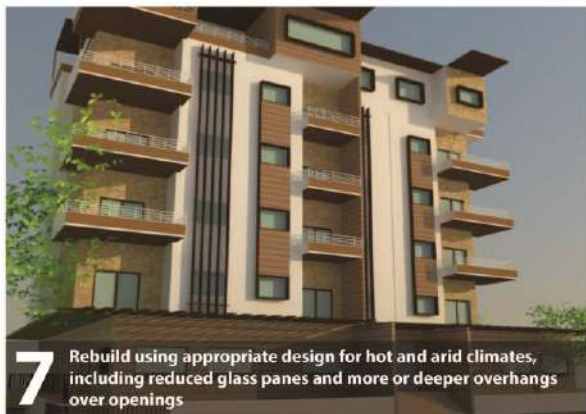
4 Promote the concept of Core Housing to be extended incrementally by the household when they have the resources.



5 Introduce some degree of land use flexibility to encourage mixed-uses to include commercial and service activities in residential areas to increase livelihood opportunities.



6 Encourage the use of natural stone (typical of Ramadi) for construction through subsidies/reduced taxes to producers and traders to promote local economy.



7 Rebuild using appropriate design for hot and arid climates, including reduced glass panes and more or deeper overhangs over openings



8 Rebuild using more performant materials such as cavity walls, hollow clay bricks and blocks, wall insulation panels heat-reflective paint for walls and roofs etc;



9 Introduce more flexible zoning and land use measures to allow urban densification along transportation routes (ToD)

02 REHABILITATING CRITICAL URBAN SERVICES AND KEY PUBLIC FACILITIES

CONTEXT

The number of educational facilities in Ramadi is 128, comprising of 74 primary schools (with a pre-2014 average of 34 pupils per class), 12 intermediate schools (30 students per class), 11 high schools, 12 secondary schools, 18 colleges and institutes, and one University. Educational institutions used to cater also for the communities in the wider Ramadi District and other towns in Anbar Governorate, especially in higher education. Prior to ISIL taking over, nearly 10% of Anbar University students were from outside the Governorate. The pre-2014 identified shortage within the education sector included 9 primary schools, 34 high schools, and 13 secondary schools.

As for health facilities, Ramadi has 11 health care centres, 2 general Hospitals and 3 Specialised Hospital. The pre-2014 identified shortage in the health sector was 14 primary health care centres.

The Public Library is located on the main street opposite the Al Qatana quarters and has been freshly renovated before the city fell in ISIL's hands. Ramadi's Ceremonial Square for public ceremonies is located in correspondence to the

city's eastern entrance opposite the College of Agriculture and occupies an area of 5 ha.

A Stadium with a capacity of 15,000 spectators is located south of Hay Al-Malaab on an area of 5.2 ha. The stadium includes a swimming pool and a variety of dedicated sport spaces. There are two other indoor sport halls, the first in Hay Al Andalus and the second in Anbar University Campus, dedicated to volleyball, handball, basketball and table tennis.

An amusement park with shops offers a 5 ha. space where children and families gather on Eid, school holidays and official holidays for play, recreation and shopping.

It is estimated during the military efforts to root out ISIL, nearly 200 public buildings were partially or totally destroyed. As of mid-2017, about a 1/4 of the schools in Ramadi were completely destroyed, and half had suffered minor or partial damage. Only a 1/4 were in good condition. During the conflict many students have had to interrupt their studies for long periods, affecting their continuity of education. Authorities have recorded increased illiteracy rates and drop-out of students, including in higher education.

Three out of the four city hospitals are still almost completely destroyed, namely the Ramadi Teaching Hospital, Houmeiat Hospital, and Al-Ma'ajal Cancer Hospital. The fourth

suffered partial damage. Furthermore, many health centres and centres are completely destroyed and 19 are partially damaged. Over the course of past two years, some 24 health facilities and 12 schools have been rehabilitated with the support of REFAATO and UNDP/FFIS. Five out of eight electricity substations have been rehabilitated, the last 3 are completely destroyed.

The number of public facilities included in the 2012 Ramadi Master Plan have been defined on the basis of needs assessments dating back to 2008 and need to be verified. Even prior to ISIL, public facilities were considered inadequate and did not reach the basic standards in terms of standards or spatial distribution.

Many of the Directorates are today focused on reaching minimum standards and going back to pre-ISIL conditions. The current lack of resources, is hampering the development of longer-term plans and visions. For the time being, humanitarian needs still dominate reconstruction activities in Ramadi.

Recommended actions:

- ↘ Monitor and urge up the **completion of all on-going or planned projects** being undertaken by REFAATO and UN development agencies.
- ↘ Address the needs listed in the **Ramadi Master Plan** to fill the gaps in service standards.
- ↘ Rebuild by adopting climatically-efficient design solutions such as appropriate building orientation, reduction of large surfaces of window glazing and the use of shading devices.
- ↘ Rebuild by adopting climatically-efficient design solutions such as appropriate building orientation, reduction of large surfaces of window glazing and the use of shading devices.
- ↘ Consider relocating selected damaged administrative buildings outside the city centre to decongest the city centre and gain space for other uses.
- ↘ Rehabilitate energy and electricity distribution facilities to support the resumption of social and economic activities and increased needs of the returned population.
- ↘ Use locally-sourced materials produced by the Iraqi construction sector (Ramadi in particular) to stimulate the local economy and create

entrepreneurship opportunities and innovation.

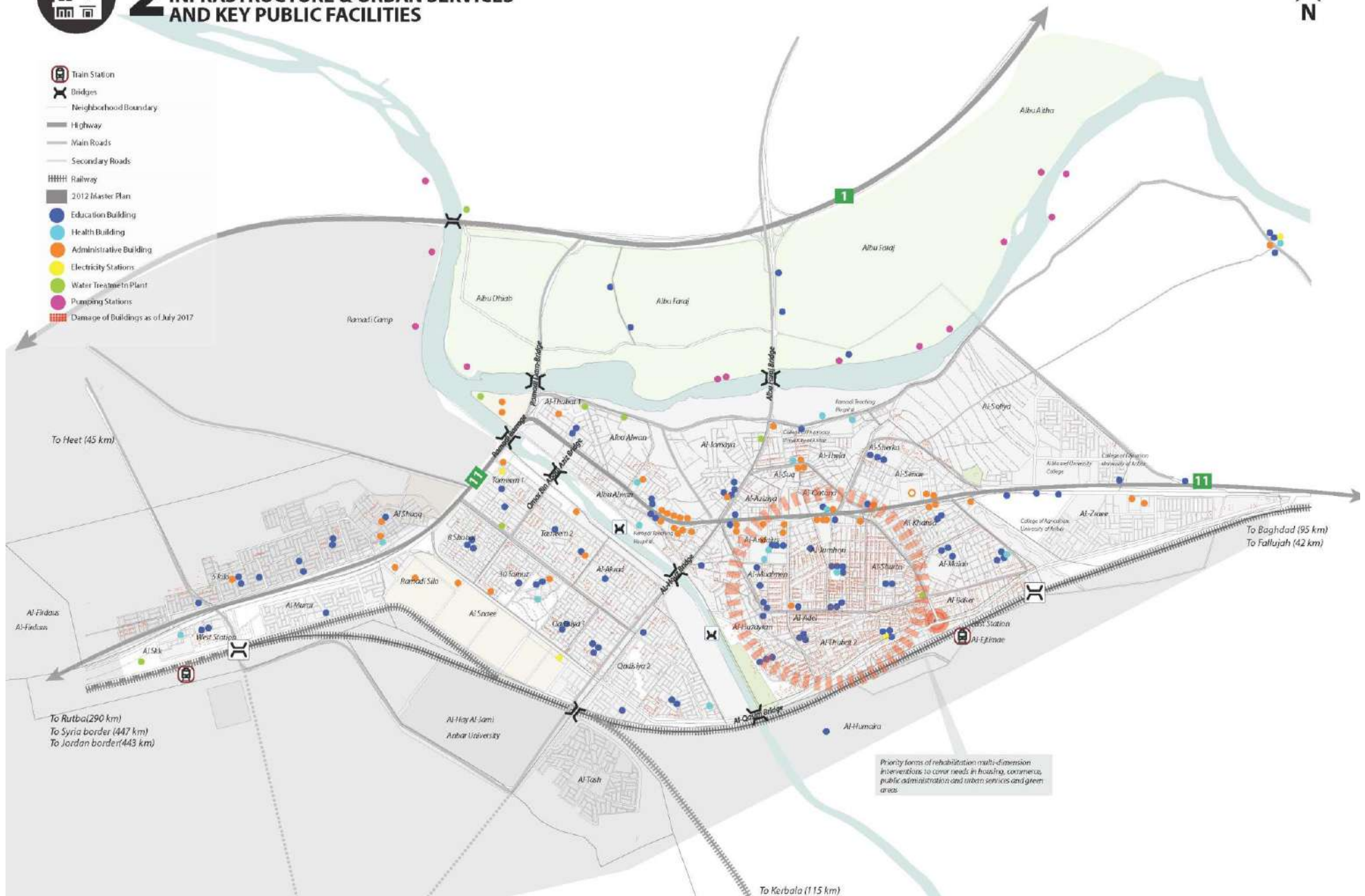
- ↘ Develop options for recycling construction debris and Identify strategic sites for safe disposal.
- ↘ Support the densification of the existing urban fabric to increase infrastructure efficiency, accessibility and reduce urban “wasteland”.
- ↘ Upgrade the existing facilities to the newest standards available to attract new businesses and start-ups.
- ↘ Prioritize in the rehabilitation of the bridges, rail tracks, stations, purchase of new equipment, and enhance freight facilities.



2 REHABILITATING CRITICAL INFRASTRUCTURE & URBAN SERVICES AND KEY PUBLIC FACILITIES



- Train Station
- Bridges
- Neighborhood Boundary
- Highway
- Main Roads
- Secondary Roads
- Railway
- 2012 Master Plan
- Education Building
- Health Building
- Administrative Building
- Electricity Stations
- Water Treatment Plant
- Pumping Stations
- Damage of Buildings as of July 2017

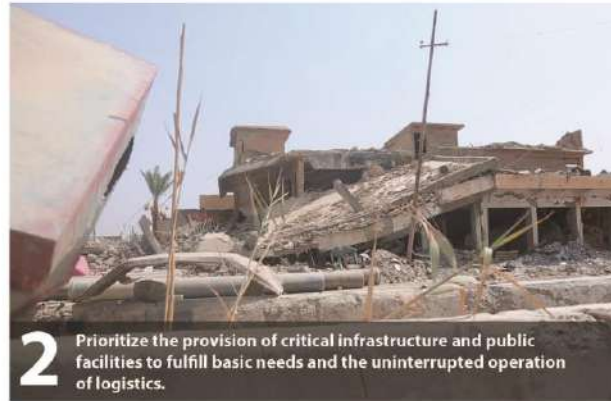


Priority forms of rehabilitation multi-dimension interventions to cover needs in housing, commerce, public administration and urban services and green areas

02 RECOMMENDED ACTIONS AND ILLUSTRATIVE EXAMPLES



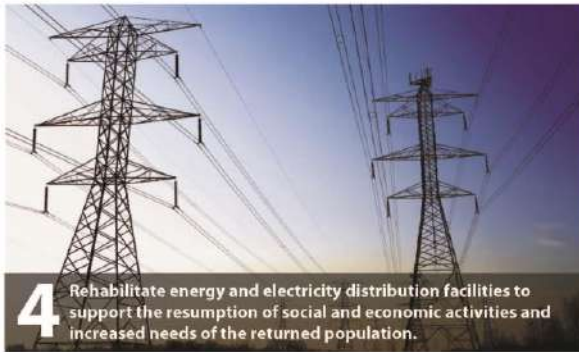
1 Rebuild by adopting climatically-efficient design solutions such as appropriate building orientation, reduction of large surfaces of window glazing and the use of shading devices.



2 Prioritize the provision of critical infrastructure and public facilities to fulfill basic needs and the uninterrupted operation of logistics.



3 Consider relocating selected damaged administrative buildings outside the city centre to decongest the city centre and gain space for other uses.



4 Rehabilitate energy and electricity distribution facilities to support the resumption of social and economic activities and increased needs of the returned population.



5 Use locally-sourced materials produced by the Iraqi construction sector (Ramadi in particular) to stimulate the local economy and create entrepreneurship opportunities and innovation.



6 Develop options for recycling construction debris and identify strategic sites for safe disposal.



7 Support the densification of the existing urban fabric to increase infrastructure efficiency, accessibility and reduce urban "waste-land".



8 Upgrade the existing facilities to the newest standards available to attract new businesses and start-ups.



9 Prioritize in the rehabilitation of the bridges, rail tracks, stations, purchase of new equipment, and enhance freight facilities.



صندوق إعادة إعمار المناطق المتضررة من العمليات الارهابية

KEY GOVERNMENT RECONSTRUCTION

ACTOR: REFAATO

The Reconstruction Fund for Areas Affected by Terroristic Operations (REFAATO) was established pursuant to Article 28 of the Federal budget law for 2015, in order to be a body that coordinates between the international organizations and Iraqi line ministries for the urgent reconstruction operations and to carry out the mid and long-term reconstruction operations for areas liberated from ISIS.

The Fund started its work after the assignment of Dr. Abdul Basit Turki Saeed, the former president of the Federal Board of Supreme Audit (FBSA) and the Acting Governor of the Central Bank of Iraq (CBI), as president of the Fund.

The Government of Iraq allocated a primary amount of 500 billion Iraqi dinars in the 2015 budget for the Fund; while the resources of the Fund will be later consisting from the grants that might be provided from the sister and friend countries in addition to the allocations from the state through the federal budget, the Fund will reconstruct the areas that were affected by the terroristic operations throughout Iraq after the liberation.

The Fund has its website where all the information related to its work and spending will be posted, and it will be audited by one of the four big international audit firms in addition to

the audit by the Federal Board of Supreme Audit to ensure the transparency of its work.

To benefit from the international expertise and ensure its effectiveness the Fund suggested including three of the biggest donors in its Board of trustees to contribute in designing the construction policy of the Fund.

The Fund priorities to get grants and assistances in form of projects or goods in the light of the actual requirements and needs for reconstruction, which should be clear and identified on areas' basis not only on sector basis of the executive line ministries, and to ensure carrying out the projects through internationally renowned companies.

03 ADDRESSING INFORMAL SETTLEMENTS, ENCROACHMENTS AND UNPLANNED URBAN GROWTH

CONTEXT

As in many other cities of Iraq, local authorities face the problem of rapid growth, often informal, on the outskirts of their municipal boundaries. The phenomenon of informal housing is the manifestation of the housing crisis, and is particularly common in those cities where Master Plans have not been duly updated and the release of affordable land may be on hold since decades. In Ramadi, for which a Master Plan was produced in 2012, there are several pockets of illegal encroachment on public land earmarked for public purposes or investment projects within its administrative boundaries, as well as the gradual and informal construction of housing units over agricultural land located to the east of the city and on the fertile land that lies between the River Euphrates and Highway 1.

There are an estimated 22 informal settlements located within the administrative boundaries of Ramadi, comprising of 1574 informal dwellings. They occupy a total of 212 ha, that were earmarked by 2012 Master Plan for a variety of land uses, including residential (42%), economic investments (40%), and greenery (10%).

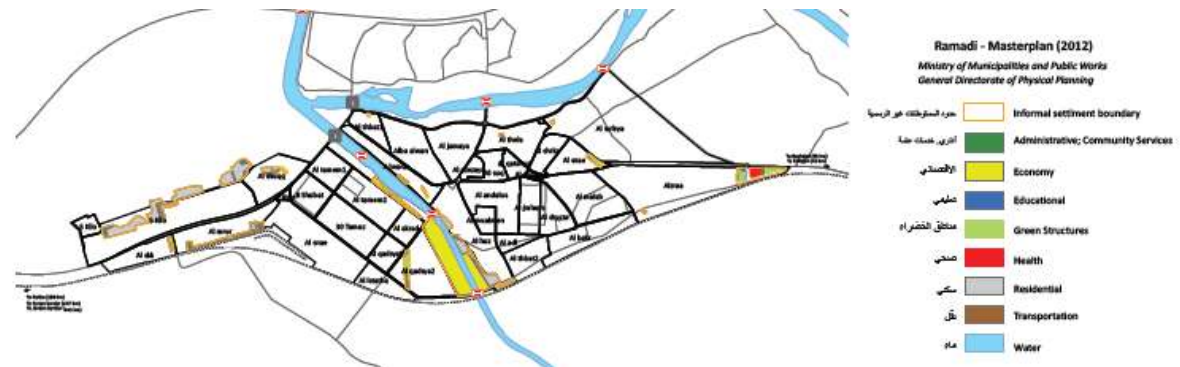


Figure 8

Addressing informal settlements and illegal encroachments within the city will require a sensitive assessment (triage or “unpacking”) of key issues, such as location, property ownership claims, earmarked land uses, impact on the environment, criticality and hazards, real estate value of the area, number of informal dwellings, and finally the extent of damage, all of which will define what might be the most appropriate actions to take.

Options include land regularisation (which will soon become feasible with the passing of a new law on informal settlements) and upgrading, offering incentives for people’s relocation, land readjustment, and lastly ignoring the problem. In observance with the Iraqi law, informal dwellers that have occupied land earmarked as greenery cannot be regularised. The priority for the government is for the city to regain access to these public areas as soon as possible. **Whereas “doing nothing” is an option, the extensive**

damage that occurred also in informal areas provides a window of opportunity that the authorities should not let close: to relocate households *before* they rebuild their homes. Reconstruction activities are already taking place. The informal areas along the Majraah Canal should be prioritised because of the criticality of the riverbank as an open public space for the entire city.

A different response is to be envisaged for the phenomenon of informal construction of housing units over private agricultural land north of the river. These areas, located in areas where water is abundant and in close proximity to urban services and infrastructure, have become very desirable. Rising land values convince farmers to subdivide their plots and sell them informally to newcomers, instead of exploiting them for agricultural purposes. Land uses are thus changes rapidly.

Recommended actions:

Along the Canal:

- Focus on **vacating the area along the Majraah Canal**, as the most “appetising” area for investors in leisure activities.
- Undertake a **discreet information campaign** to make sure that dwellers that are rebuilding their homes along the canal know that they will not be allowed to stay because this a public green area – protected by Law.
- **Relocate households** before they rebuild their informal homes, offering either cash “incentives” or an alternative land parcel for them to vacate the area.
- Fence the vacated areas to avoid immediate reoccupation by others.

North of the river:

- Fix a **minimum area for individual agricultural plots** (e.g. 5 dunums), allow the construction of one single house in this area and not giving the right to new partners or their sons to build residential houses beyond this ratio.
- Deny the right to new partners (spouse and relatives) or their sons to build residential houses beyond the allowed ratio.
- Safeguard the agricultural nature of land for its importance in maintaining food security, employment and income for the city.

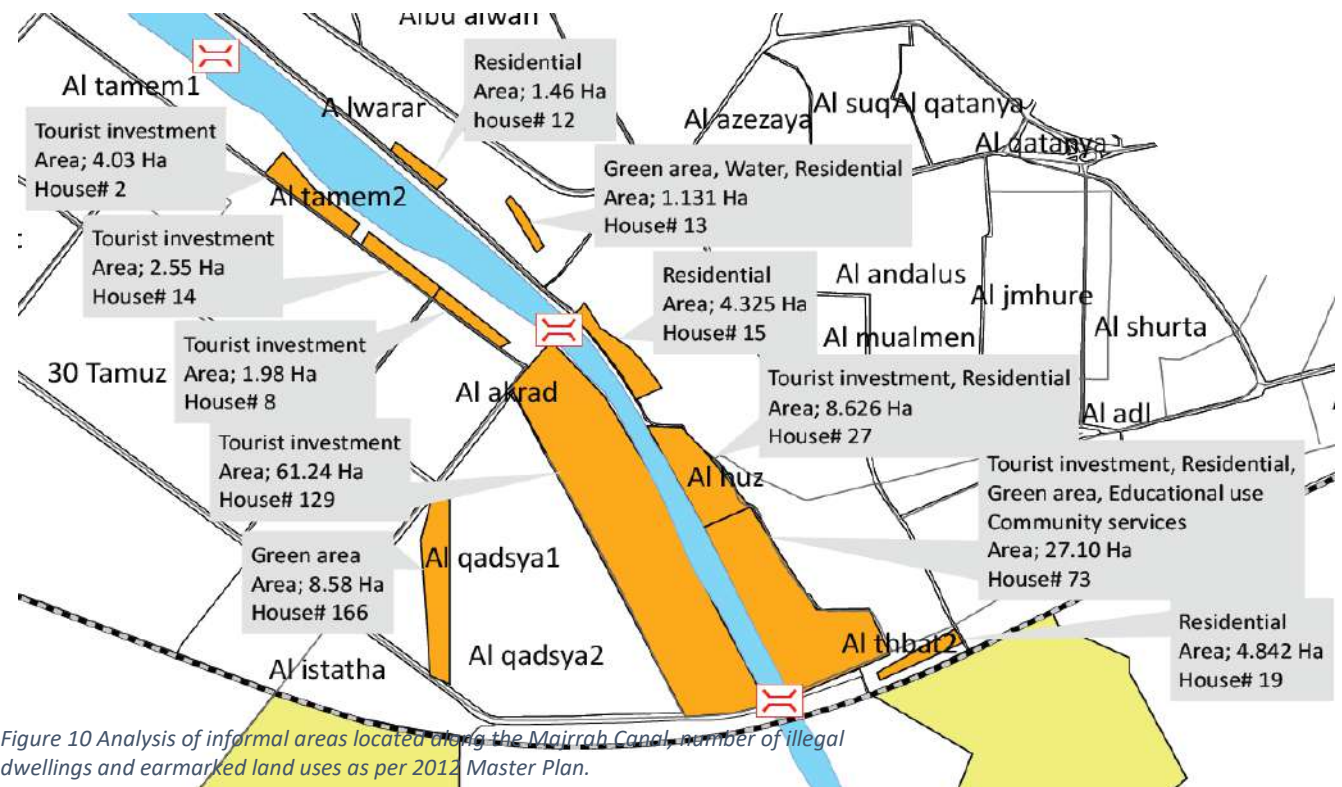


Figure 10 Analysis of informal areas located along the Majraah Canal, number of illegal dwellings and earmarked land uses as per 2012 Master Plan.

Inside the city

- Safeguard the agricultural nature of land for its importance in maintaining food security, employment and income for the city.
- Safeguard the agricultural nature of land for its importance in maintaining food security, employment and income for the city.

- Implement by gradual phases the proposed expansion of the master plan on non-agricultural land to reduce housing deficit and pressure on land.
- Support the construction of affordable housing units that could provide an option for relocation of vulnerable households who lost their houses during the military operations.

03 RECOMMENDED ACTIONS AND ILLUSTRATIVE EXAMPLES



1 Fix a minimum area for agricultural plots (e.g. 5 dunums) and allow the construction of one single house in this area



2 Deny the right to new partners (spouse and relatives) or their sons to build residential houses beyond the allowed ratio.



3 Safeguard the agricultural nature of land for its importance in maintaining food security, employment and income for the city.



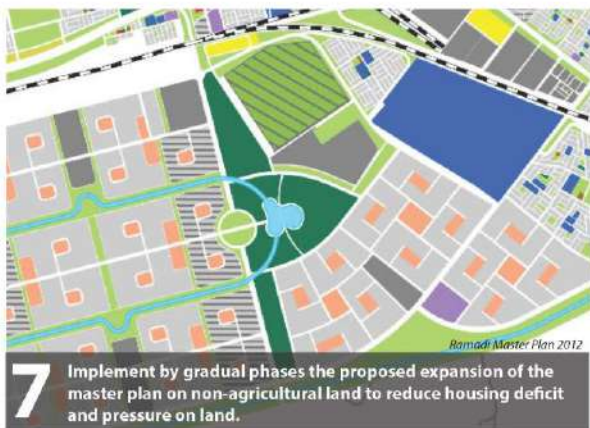
4 Prevent the expansion of the settlements which have been documented by MoP (Executive Directorate of Poverty Reduction Strategy) until the legislation is approved.



5 Focus on maintaining the area along the canal free of illegal encroachment, as the most "appetising" area for investors in leisure activities.



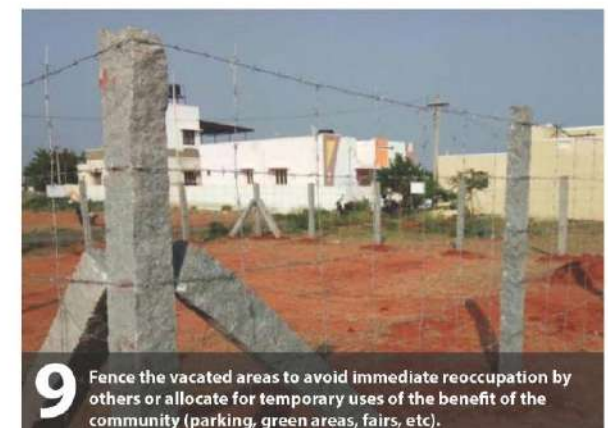
6 Regularize and service informal settlements as it is located on allocated land for future residential zones and connect to existing urban fabric.



7 Implement by gradual phases the proposed expansion of the master plan on non-agricultural land to reduce housing deficit and pressure on land.



8 Support the construction of affordable housing units that could provide an option for relocation of vulnerable households who lost their houses during the military operations.

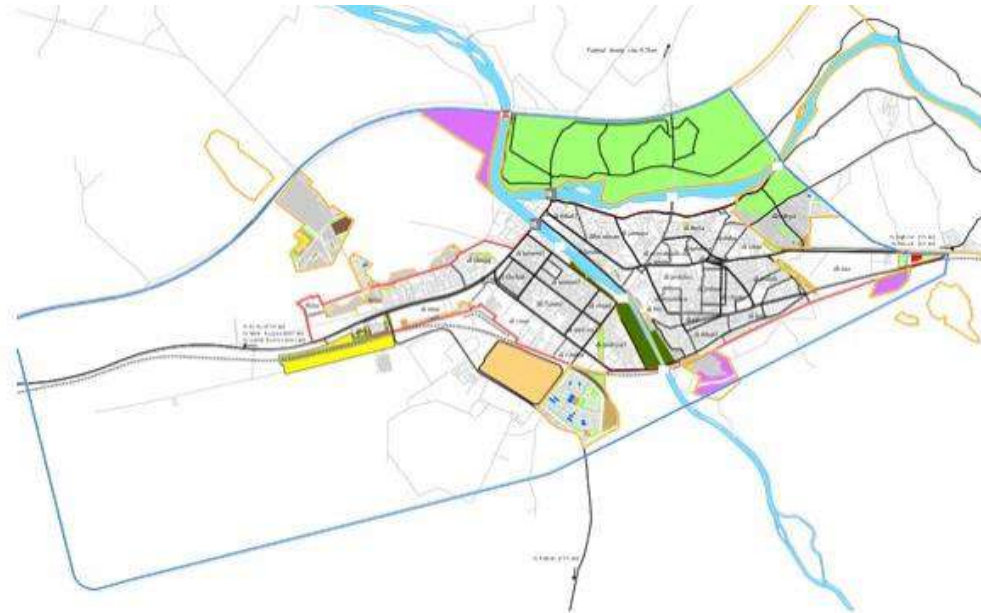
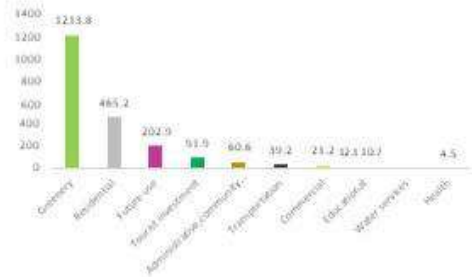


9 Fence the vacated areas to avoid immediate reoccupation by others or allocate for temporary uses of the benefit of the community (parking, green areas, fairs, etc).

TOTAL AREA AND # OF HOUSES IN INFORMAL SETTLEMENTS AND INFORMAL URBANISATION OF AGRICULTURAL LAND

Informal settlements	Area (ha)	# of houses
Agricultural land	6660	10935
Future expansion	368	970
Within city	243	1693
Dump sites	110	
TOTAL	7381	13598

OVERVIEW OF SECTOR BUILT IN CONTRADICTION TO DESIGNATED LAND USES BY RAMADI'S 2012 MASTER PLAN



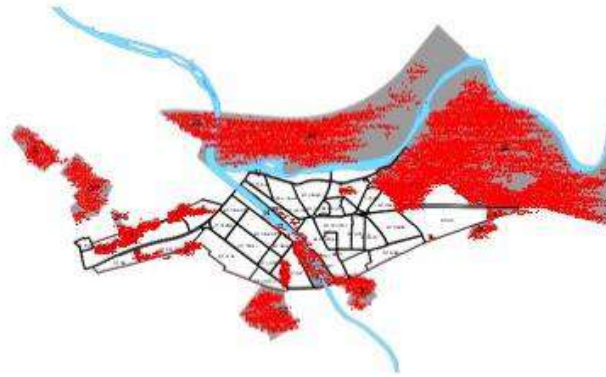
INFORMAL SETTLEMENTS AND ENCROACHMENTS WITHIN THE CITY ADMINISTRATIVE BOUNDARIES CONTRADICTION WITH THE 2012 RAMADI MASTER PLAN



TYPE OF INFORMAL SETTLEMENTS



OF HOUSES IN INFORMAL SETTLEMENTS AND INFORMAL URBANISATION OF AGRICULTURAL LAND



AREA (HA) AND NO. OF HOUSES FOR EACH INFORMAL SETTLEMENTS AND INFORMAL URBANISATION

ID	Area	# of houses	ID	Area	# of houses
1	2.6	41	17	19.3	207
2	0.5	4	18	26.2	348
3	0.6	15	19	2.5	22
4	22.1	80	20	17.8	184
5	1.2	7	21	0.5	3
6	4.3	15	22	1.1	13
7	8.6	27	23	1.5	12
8	28.0	73	24	1578.0	2652
9	4.8	19	25	138.7	328
10	61.2	129	26	121.7	278
11	8.6	166	27	215.5	437
12	2.6	14	28	24.8	37
13	2.0	8	29	219.5	600
14	4.0	2	30	92.0	233
15	16.4	197	31	32.5	100
16	6.8	95	32	2303.2	7240

04 ENHANCING THE MOBILITY OF PEOPLE WITHIN THE CITY, TRANSPORTATION SERVICES IN THE DISTRICT AND PROVINCIAL CONNECTIONS

CONTEXT

Because of its strategic location along the Euphrates and the road connecting Baghdad with Syria and Jordan, in a fertile and alluvial plain, Ramadi is a hub for trade and cross-border traffic. The city centre is restrained to the north by the Euphrates River and to the south by the railway line between Baghdad and Haditha, and to the west by the Habbaniyah Canal, but key bridges ensure a good connectivity between the city and Highway #1.

As highlighted in Anbar's Provincial Recovery Plan 2018, the governorates' road and railway networks are in urgent need to repairs and upgrade. Since Anbar is in fact the western gateway of Iraq, over and above the repair of the infrastructure within the city, the recovery of the transportation network towards its strategic border exit towards the Aqaba Gulf in Jordan is critical because of the significant

amount of exported oil, industrial and service products, and imported goods and services that depend upon it. To fully exploit Ramadi's role as a regional trade hub in the economic recovery of the governorate, MoCH's Anbar Directorate of Roads and Bridges (DoRB) will need to increase the potential of services and facilities along the Highway 1 that connects Baghdad to Amman in Jordan, through the recently reopened western border crossings of Tabil, and Expressway 11 to Damascus through the border of Al Walid. The northern branch of Expressway 12, connecting with Deri ez Zour and Raqqa in Syria through the northern town of Al Qaim, is a critical lifeline for the towns, agribusinesses and other activities along the Euphrates.

The entire road network of Anbar will have to undergo extensive repairs and upgrading works to resume its full capacity. Planted explosives and military confrontation has affected the Expressway, bridges, main and secondary roads, pipe and box culverts, in addition to the damages of the Transportation directorate buildings, warehouses and construction labs affiliated to the maintenance of roads and bridges in some governorates, along with the loss of vehicles and technical equipment.

Increasing road safety measures to decrease accidents will also become critical, in line with Iraq's commitment to its 'Decade of Action for Road Safety 2011-2020'. Lane separations, improved signage, emergency parking bays, rest facilities will be as important along the heavy trafficked Highway 1 across the desert, as along the busy Expressway 12 serving active trading towns and farming villages.

Railway connections. Anbar's only railway line used to transport both passengers and cargo goods (with 24 and 5 stations respectively), starting from Baghdad and ending at the mines of Ukashat, 522 km away. It appears critical for Anbar Railway Department to invest in the rehabilitation of rails, bridges and train stations which is estimated to require US\$ 26 M., excluding equipment.⁸ In 2011, the Jordanian government approved the construction of a railway from Aqaba to the Iraqi border. Around the same time, a line extension appears to have started from Ramadi's railhead but works have stopped.

⁸ GoI/UNDP (2018), "Anbar Provincial Recovery Plan"; p. 44

Over the medium-term, it is not envisaged that river transport will be part of any investment program, aside maybe for future tourism purposes, but up to the mid-1980s between 5 and 7% of all cargo in Iraq was carried along inland waterways – including steel, cement, grains and other non-perishable goods. Today, aside the damaged infrastructure, the water levels have decreased significantly due to the construction of dams in Turkey. Notwithstanding these constraints and the barriers posed by the dams and bridges (including the temporary ones), the river Euphrates still offers some potential to develop future alternative routes for the transportation of people and bulky goods along the Euphrates, particularly for flatbed boats and barges.

CITY LEVEL

All of the 11 bridges of Ramadi that cross either the Euphrate or the Warrar Canal were damaged and are undergoing rehabilitation works. Five of these, including the Palestine Bridge on Euphrates, the Omar bin Abdulazeez Bridge on Warrar River and the Warrar Bridge (Al-Houz) on Warrar River, are currently under repair either by REFAATO or by UNDP. The recovery of all bridges will ease current traffic bottlenecks. Expressway 11, that traverses the city from east to west across the Ramadi Barrage that regulates the flow of the Al-Warar Canal, was once upon a time

the only connection between the two sides of the city. Haouz Bridge to the south was built to relieve the bottleneck in the road system in the city centre. A southern road that bypasses the city centre, parallel to the rail tracks, is planned to connect the city's future extension to the west and the University of Anbar. There does not appear to be any need for a Ring Road, but an additional bridge to the south of the city would help to improve linkages.

Before investing in the reconstruction of all administrative buildings in the city centre, selected relocations should be considered to relieve congestion. While the western expansion appears well defined by the 2012 Ramadi Master Plan, prior the 2014 the centre-east of the city was affected by congestion because of the overlapping of commercial land uses with a large number of public administration buildings that are located in the city centre. It appears important to consider relocating selected damaged institutions to the new administrative centre defined in the Master Plan *before* budgets are allocated from central ministries and their reconstruction starts.

Because of the proximity of two rail stations to key expansion areas of the city, Ramadi offers excellent prospect to invest in inter-modal transportation nodes that will improve the mobility of people within the city and its

developing hinterland. An *intra muros* circular bus line could connect the Ramadi Bus Station, the Anbar University Campus to the south-west, the two East and West train stations, the Al Ramadi Teaching Hospital to the north, and the Colleges of Agriculture and Al Maaref University to the east. Industries with a high number of employees should also be linked. A separate bus service to could connect to Habbaniya, while conducting a feasibility study for a light rail that would enhance its tourism prospects.

Prospects to improve infrastructure and spaces for the loading and downloading of goods should be explored in proximity of the warehousing district, the train stations and road connections leading to the highway. Truck terminals for weighing and taxation.

Recommended actions:

- ↘ **Build a road parallel to the rail tracks** with a new bridge connecting east and west Ramadi, serving the planned extension of the 2012 Master Plan.
- ↘ Invest in the **rehabilitation of the bridges, rail tracks and stations**, and purchase of new equipment, that would allow the resumption of the rail services connecting Baghdad to Ramadi.
- ↘ Develop a **bus route connecting key transportation nodes** with landmark health and educational institutions
- ↘ Introduce tolls on Anbar governorate Highway to raise revenues that can be invested in road repairs and safety
- ↘ Increase **road safety measures** throughout the system to reduce accidents and fatalities, particularly at renowned “hot spots” such as intersections, U-turns, schools (28% of all fatalities in Iraq affect children).
- ↘ Conduct a feasibility study for a **southern bus/light train branch** connecting Ramadi Train Station with the Habbaniyah Tourist Resort (now dilapidated).
- ↘ Improve public spaces and pedestrianism routes by creating clear division between pedestrian sidewalks, cycle routes and vehicular traffic.

- ↘ **Encourage land use changes and higher densities in proximity of the transportation node** on the western side of the city (espousing the planning approach known as Transit-Oriented Development, TOD)
- ↘ Connect Ramadi with Habbaniyah resort and other cities through river (recently started in Baghdad 2018)
- ↘ Install protective barriers and pedestrian bridges along the railway to reduce accidents and delay of trains.

Transit-Oriented Development (TOD)

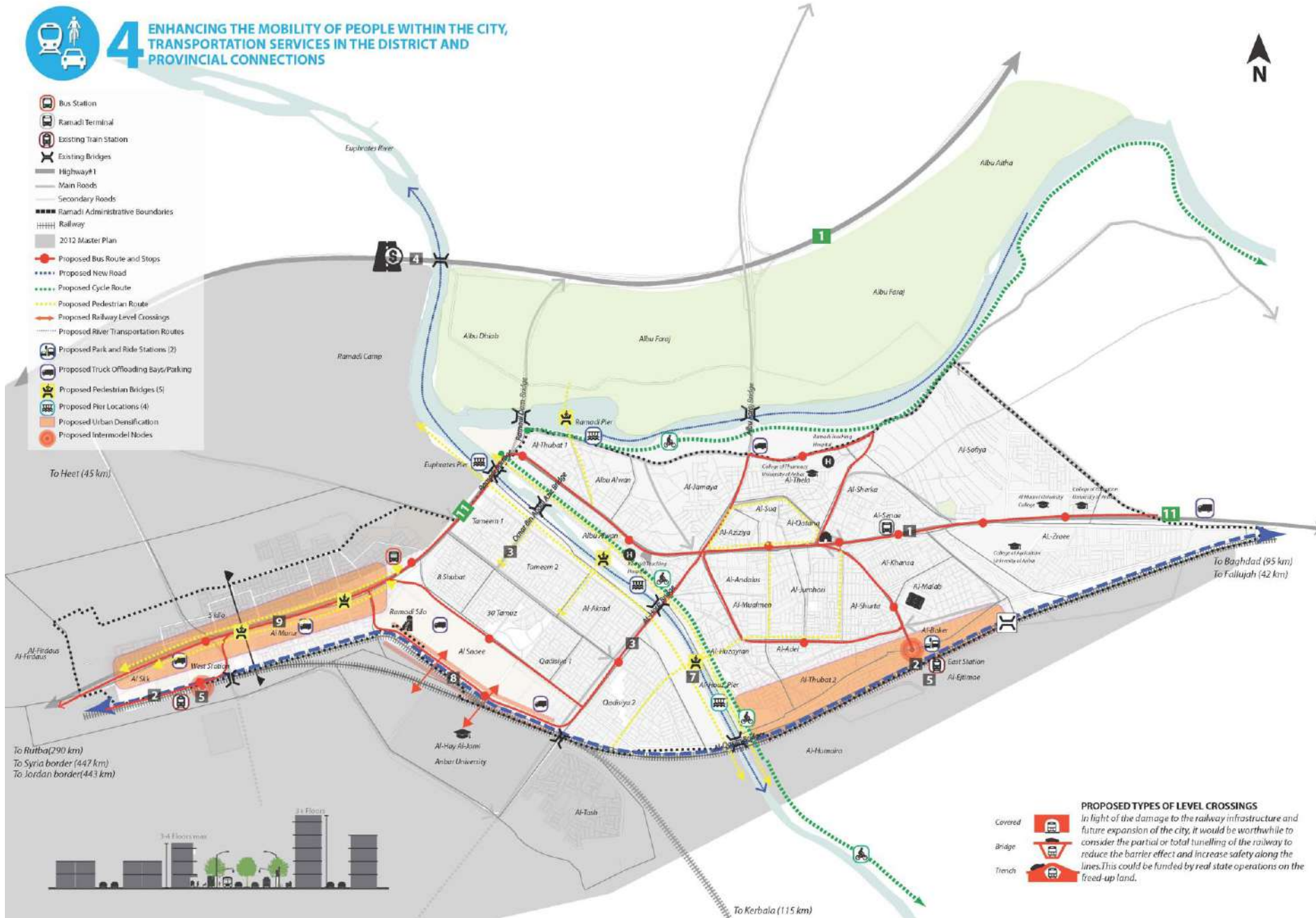
Transit-Oriented Development (TOD) is compact, mixed use, pedestrian-friendly development focused on rail and busway stations. TOD prompts residents and workers to take transit for out-of-neighborhood trips and walk or ride a bike for shorter within neighborhood trips. TODs also aim to function as community hubs places to not only “pass through” but also “to be” – e.g., for public celebrations, outdoor concerts, and farmers markets. An ultra-environmentally friendly version, Green TOD (a marriage of TOD and green urbanism), is taking form in European cities like Stockholm, Sweden and Freiburg, Germany. Studies show Green TODs can reduce carbon dioxide emissions by 30% compared with those of a typical car oriented development.

TOD Principles



4 ENHANCING THE MOBILITY OF PEOPLE WITHIN THE CITY, TRANSPORTATION SERVICES IN THE DISTRICT AND PROVINCIAL CONNECTIONS

- Bus Station
- Ramadi Terminal
- Existing Train Station
- Existing Bridges
- Highway#1
- Main Roads
- Secondary Roads
- Ramadi Administrative Boundaries
- Railway
- 2012 Master Plan
- Proposed Bus Route and Stops
- Proposed New Road
- Proposed Cycle Route
- Proposed Pedestrian Route
- Proposed Railway Level Crossings
- Proposed River Transportation Routes
- Proposed Park and Ride Stations (2)
- Proposed Truck Offloading Bays/Parking
- Proposed Pedestrian Bridges (5)
- Proposed Pier Locations (4)
- Proposed Urban Densification
- Proposed Intermodal Nodes



PROPOSED TYPES OF LEVEL CROSSINGS
 In light of the damage to the railway infrastructure and future expansion of the city, it would be worthwhile to consider the partial or total tunnelling of the railway to reduce the barrier effect and increase safety along the lines. This could be funded by real state operations on the freed-up land.

To Heet (45 km)
 To Rutba (290 km)
 To Syria border (447 km)
 To Jordan border (443 km)

To Baghdad (95 km)
 To Fallujah (42 km)

To Kerbala (115 km)

04 RECOMMENDED ACTIONS AND ILLUSTRATIVE EXAMPLES



05 GREENING RAMADI: REHABILITATING PUBLIC SPACES AND COMBATING DESERTIFICATION

In post-conflict situations, priority interventions tend to focus on immediate needs in terms of infrastructure, services and houses. Yet, international experience shows that the rehabilitation of landmark historic features and open spaces has a huge role to play in the recovery of cities and their citizens – particularly where they can provide opportunities for reconciliation where people can focus on common interests between groups that can support peaceful coexistence. Peace-building through landscape design – particularly open spaces for Youth – is indeed possible.

One of the identified priorities of the 2012 Master Plan is the rehabilitation of the two riverbanks of Ramadi for tourism investments and leisure purposes. In a context of scarce green areas within the city, the bifurcating riverbanks of the Euphrates Riveer and Majraah Canal can become “the” Park for Ramadi, integrating the creation of a new ‘axis’ for open space public amenities with improved connectivity with the city. This would entail transforming the riverbanks of the Euphrates and

Majrrah Canal into a linear park that can stretch several kilometres south, up to Lake Habbaniyah. The greening of the riverbank, reforestation and support to urban agriculture along this axis can contribute to the making of a national “green belt” to stop the advancing desertification of the historically fertile soil of the Mesopotamian land. Upgraded riverbanks can provide tourism opportunities, livelihoods and new east-to-west and north-to-south axes for open air activities and cycling routes as a viable alternative to the Ramadi busy roads.



Figure 11: Land uses along the riverbank from the 2012 Master Plan

Although not a current priority for the city, it is important to ensure that no land allocation or growth of informal settlements will prejudicate the creation of the National Park proposed in Anbar’s Structure Plan south of the city.

Also, this is the time to make the most of the current window of opportunity to relocate polluting industries outside the city and reclaim brownfield sites for mixed residential and educational uses. The landfill site could be relocated in areas where soil infiltrations would not affect water sources used in agriculture. Upgraded public gardens within the city can become an integral part of a new “system” of interconnected spaces used for multi-cultural purposes for citizens, in particular youth.

Recommended actions:

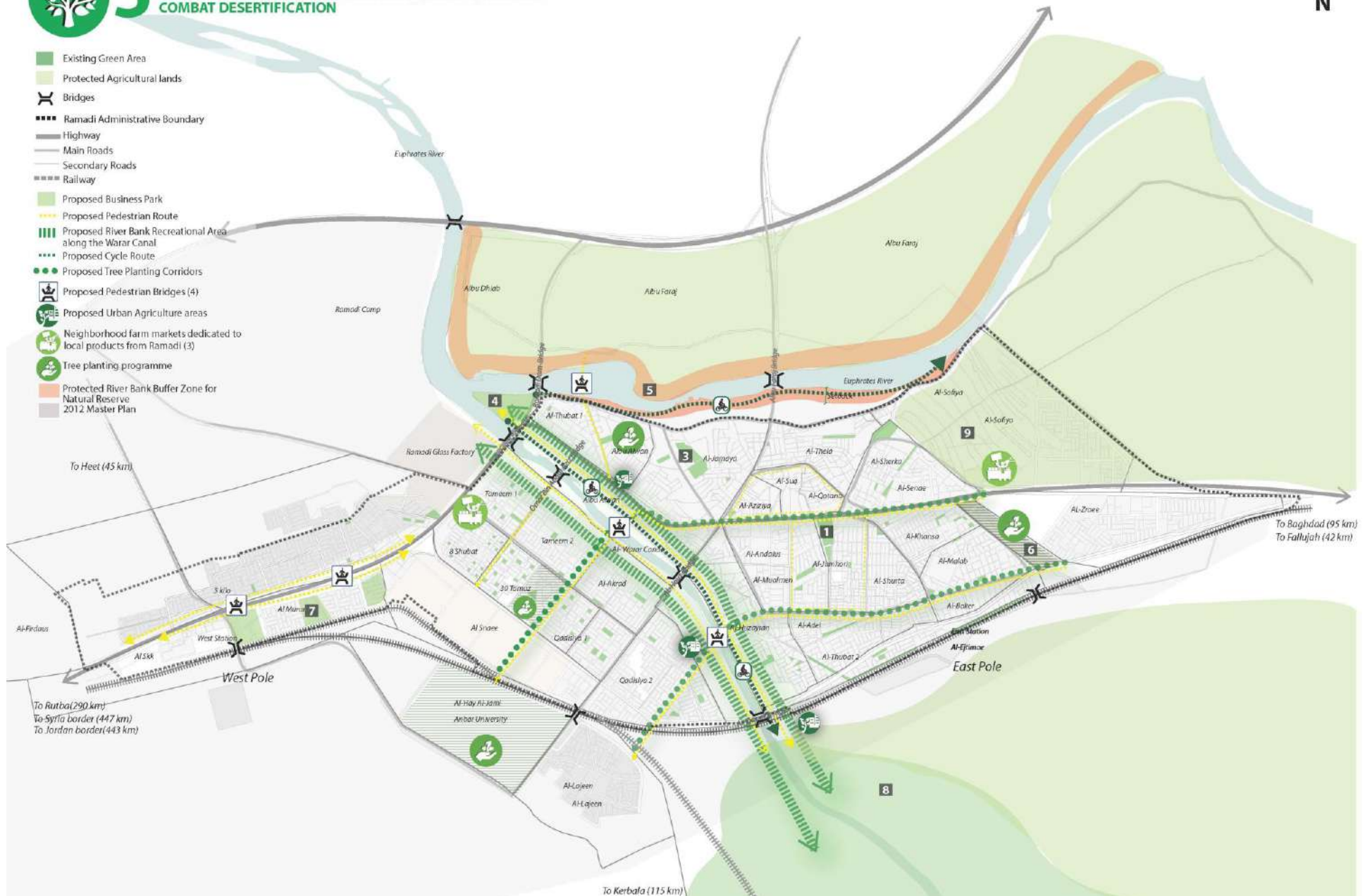
- ↘ Rehabilitate and maintain of the existing green areas to be an integral part of a new **“system” of interconnected public spaces** used for multi-cultural purposes for citizens, in particular youth.
- ↘ Define the **riverbank recreational area** for open air activities and cycling routes as a viable alternative to the Ramadi busy roads and to encourage sports among the citizens particularly youth.
- ↘ Convert unused land (**“brown fields”**) into productive landscapes contributing to the city’s economy and health
- ↘ Assess potential **reuse** of this area for the future public space with amenities (viewpoints, multi-purpose area)
- ↘ Establish **non-buildable buffer zone** earmarked for public use, amenities and wildlife protection
- ↘ Introduce **Planting scheme** looking into the use of aquatic plants to treat waste water that act as natural filters.
- ↘ Introduce the concept of **green business districts** alongside the West Pole that offer good quality open spaces and enhancing mixed use developments.
- ↘ **Stop all construction and reconstruction works along the canal.**

- ↘ Set a **ceiling of buildable areas** between 10 and 15% in the investment zones along the riverbanks.
- ↘ Protect the areas of the **future National Park** linked to Habanniah Resort to stop the advancing desertification. Introduce viewpoints for tourists (wooden walkways, resting facilities)
- ↘ Identify suitable areas for **urban agriculture** within the city and along the river axis that can contribute to the making of a national “green belt” to stop the advancing desertification

5 GREENING RAMADI: REHABILITATING PUBLIC SPACES AND ENHANCING QUALITY OF LIFE RESTORING ECO-SYSTEM TO COMBAT DESERTIFICATION



- Existing Green Area
- Protected Agricultural lands
- Bridges
- Ramadi Administrative Boundary
- Highway
- Main Roads
- Secondary Roads
- Railway
- Proposed Business Park
- Proposed Pedestrian Route
- Proposed River Bank Recreational Area along the Warar Canal
- Proposed Cycle Route
- Proposed Tree Planting Corridors
- Proposed Pedestrian Bridges (4)
- Proposed Urban Agriculture areas
- Neighborhood farm markets dedicated to local products from Ramadi (3)
- Tree planting programme
- Protected River Bank Buffer Zone for Natural Reserve 2012 Master Plan

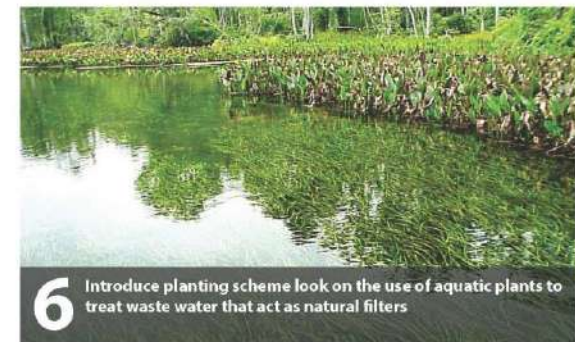
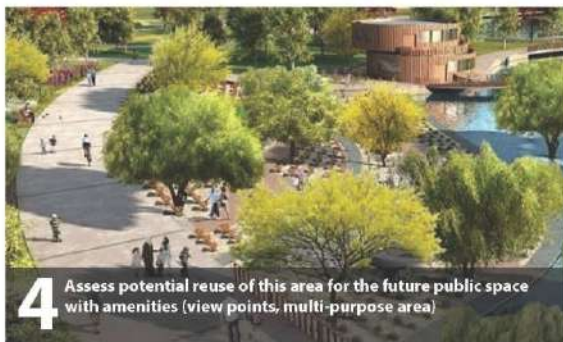


To Rutba (290 km)
 To Syria border (447 km)
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To Baghdad (95 km)
 To Fallujah (42 km)

To Kerbala (115 km)

05 RECOMMENDED ACTIONS AND ILLUSTRATIVE EXAMPLES



06 BUTTRESSING THE LOCAL ECONOMY BY ENHANCING TRADE, COMMERCE, INDUSTRIAL MODERNIZING AND DEVELOPING TOURISM OPPORTUNITIES

The new 'enabling measures' announced at the Kuwait Conference will hopefully encourage the competitiveness of the Iraqi private sector in the construction industry as a whole. Anbar governorate definitely enjoys all the basic requirements to be attractive to investors: strategic location, natural resources, arable land, water, international borders, skilled labour, in addition to a huge reserve of oil, gas, quarries and important minerals.

The optimal use of these resources is bound to guarantee a dramatic effect on available capital, jobs generation and socio-economic development. Regrettably, as recognised in its Provincial Recovery Plan⁹, Anbar's pre-ISIL's economy relied mainly on the public sector, where the main employers and income source for the population were public administration jobs, the public education and health sector and state-owned enterprises (SOEs) in agricultural, trade

and services. This has reduced private sector development, entrepreneurship and diversification. Technological uptake has been limited and the technology used is outdated, when not obsolete and polluting.

One of the sectors that stands the best chance to "gain" from the present predicament is the construction industry. With adequate support to construction-related enterprises based in Anbar (such as stone, gravel and lime quarries, crushing and processing plants, transportation) and Ramadi (agents, traders, warehousing and building companies), reconstruction activities can boost the economy of the whole region.

For this to happen, the public administration will have to actively reach out and support private construction enterprises in Anbar, in particular the quarrying of raw material (from Rawah), production of lime (from Heet), concrete (Al Qa'em and Heet), stocking and trading of building material in the industrial areas of Ramadi, so that **the construction sector can be enabled to fully partake to the recovery and reconstruction of the region and become a pillar of the local economy, providing job opportunities and attracting scientific expertise and innovation.**

Enabling measures include the easing of investment procedures, bidding transparency,

clear selection criteria, and public announcement of opening and awarding of contracts, providing capacity-building in tendering processes to SMEs, establish construction labs for quality assurance testing, servicing industrial zones with 24/7 electricity and fibre optics cables, improving the security of inter-city roads, providing parking bays and weight/security control stations for large vehicles.

Prior to 2014, it is estimated that between 200 and 400 Jordanian trucks crossed into Iraq daily.¹⁰ Since Da'esh's takeover, Iranian, Chinese, and Turkish goods managed to consolidate their position in the Iraqi market across multiple sectors, including pharmaceuticals, food supplies, and others. While trade between Iraq and Iran has reached \$6 billion in 2016/17, Turkish exports jumped to \$4.5 billion, a 30% increase from the same period in 2016. Jordan is under pressure to speed things up, since Iraq has recently signed agreements with Saudi Arabia to boost bilateral trade, also through the prospected reopening of the railway.

To facilitate trade, the Iraqi and Jordanian government were discussing in 2017 a possible waiver of the 30 % custom fees on Jordanian goods.

domestic exports (\$1.2 billion a year), according to the IMF. Source: Wakeel al, Dina (2017), "Crossing Trebil" in *Venture Levant Business Intelligence*.

⁹ Gol/UNDP (2018), "Anbar Provincial Recovery Plan"; p. 33

¹⁰ Prior to the closure of Trebil in summer of 2015 because of security concerns, Iraq was the Jordan's main export market, accounting for almost a fifth of

Tourism

Ramadi governorate offer several opportunities to develop a vibrant tourism sector. Attractions include: natural and artificial sites of the Euphrates and Warar rivers, Habbaniyah and Tharthar lakes; sites of historical significance such as the presidential palaces; and religious shrines of social and historical importance such as Ahmad bin Hashim, Sheikh Khalifa, Sheikh Masoud, Sheikh Hadid, Sheikh Awad, Oweis Alqorni. The Highway passing through Anbar facilitates the development of individual and group tourism from Baghdad and abroad.

The non-availability of funding for the development of the tourism sector is a major constraint. Adequate funding would conceivably require a mix of private and public investments and allocations of suitable land for development. Currently, the Ministry of Tourism/State Board of Antiquities and Heritage exerts authority over palaces and presidential locations, in coordination with the provincial government. The Tourism Commission under the Ministry of Culture, however, is self-funded (albeit a public entity) and does not receive any financial allocations to create tourism facilities. The private sector is still reticent to invest, but as soon as the lingering political and security issues ease off, confidence is bound to return.



Figure 12: Aerial view of Ramadi. Source: USMC – Defense Imagery, 2008.

Agribusiness

Because of the relative isolation of Iraq in recent decades coupled with restraining policies, agribusiness and agricultural enterprises have not yet been able to benefit from international markets, the development of modern production techniques and the adherence to global trading standards. There are little or no incentives to invest in agricultural processing industries or value chains because of the complicated and outdated administrative and regulatory system, the considerable shortcomings of the public agencies that are in charge of the advisory and technical services, erratic price policies, inefficient marketing networks, very little market

information and complicated and time-consuming export/import procedures.¹¹

If the city authorities can successfully slow down and restrain the rapid urbanisation that is currently taking place over the fertile agricultural land located to the north of the Euphrates and to the east of the city, these areas hold the key to developing a thriving fruit and vegetable market that will contribute to reduce Ramadi's import of fresh produce – i.e. its ecological "footprint".

Commerce

The commerce sector is key to providing basic services and requirements (production and consumption goods) for citizens, within the framework of public, mixed and private entities.

The commercial sector in Ramadi suffers from the same issues as the other sectors of the economy. Some analysts believe that the main problem is that the commercial sector is overly reliant on state support and that it uses outdated

¹¹ GOI/FAO (2012) *Iraq Agriculture Sector Note*.



Figure 13: Ramadi markets are back to life. Source: Anbar Governorate.

management methods.¹² At the same time, due to the security situation, the scarcity of information, the lack of reliable electricity supply and the complicated administration procedures, private investors are reluctant to invest in the province.

Because of its location, the city of Ramadi provides a convenient space for commercial exchange with other cities. For this reason, it is very important to prioritize the rehabilitation of key infrastructure and facilitates to support the revival of Ramadi's local market.

High Tech

Iraq still faces many issues including security, political and financial challenges, but the positive

¹² Khudairi Mohammed, *Tech in Iraq*. Source: bite.tech/news

aspect of technology is that it can potentially allow developing countries such as Iraq to “leapfrog” in the evolution of certain skills and equipment, in fields such as communications, e-commerce, services on-demand, banking, medicine, energy production etc.¹³ Both the Iraqi government and the private have a role to play in supporting Research & Development (R&D) science and technology programs in universities and other institutions. R&D is critical to Iraq's future economy and to the development of technologies that make use of the vast quantities of minerals available in Iraq – including in Anbar.

Industrial Modernisation

The rehabilitation and development of the renowned **Ramadi Glass Factory** has been suggested as a priority investment opportunity at the Kuwait International Conference in February 2018. Owned by the State Company for Glass and Refractories Industry (SCG&R), it falls under the control of the Ministry of Industry and Minerals (MoIM). When it was functioning, it produced 13 types of glass for multiple purposes, such as glass for buildings, automobile and mirrors. According to estimates of the National Investment Commission, Iraq's need for float glass is doubling annually. The target production capacity of the Glass Factory is 500,000 ton/year. The annual production cost at full capacity (700

¹³ Khudairi Mohammed, *Tech in Iraq*. Source: bite.tech/news

ton/day) is around 94 billion IQD (\$79 million), with a suggested return of 16 percent on investments. The location of the plant in Anbar is suitable for exporting this product to the neighbouring countries as raw or final product.

Lastly, the destruction of many large industrial plants, although appalling, provides a window of opportunity for the relocation of selected polluting industries in more suitable areas and the adoption of greener technologies and the use of renewable energy sources. In terms of strengthening the technical capacity of the workforce and introducing technological modernisation, medium and large enterprises would benefit from a partnering between the Anbar University and the Baghdad University of Technology for the delivery of specialized learning engineering courses (Materials, Mechanical, Electrical, Building & Construction Engineering and Manufacturing Engineering & Assembly), as well as support partnering between national and foreign entities to facilitate knowledge transfer and injection of much needed resources.

06 RECOMMENDED ACTIONS AND ILLUSTRATIVE EXAMPLES



1 Rehabilitate key infrastructure and facilities in order to support the restart of commercial and economic activities.



2 Safeguard and enhance Ramadi's natural assets and localise agro-processing industries, distribution, farm machinery, and seed supply, as well as marketing and retail sales.



3 Support fish farming enterprises and cultivation along the river by providing renewable energy supply from Ramadi Dam and ensure good quality water (unpolluted).



4 Promote sustainable warehousing concept by combining available technologies and solutions in terms of energy savings, heating and cooling systems, and alternative energy sources.



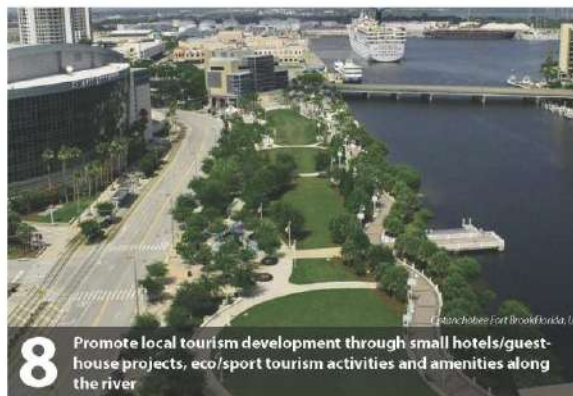
5 Introduce the concept of high tech serviced green business districts alongside the West Pole that offer good quality open spaces and enhancing mixed use developments.



6 Promote technological modernisation of Ramadi main factories and Introduce new non-polluting and efficient technology.



7 Establish serviced terminals for trucks and trailers in the suburb of the city, adjacent to the main city exits to boost productivity of trade businesses and related services.



8 Promote local tourism development through small hotels/guest-house projects, eco/sport tourism activities and amenities along the river



9 Establish high tech corridor (companies, research institutions and industry organizations) linked to Anbar University to build diverse clusters of innovation and start-ups.

Recommended actions:

- ↳ **Fast-track building applications** to support entrepreneurs investing in repairing or rebuilding their depots, factories and construction yards in Ramadi
- ↳ **Technological modernisation** of the Glass Factory of Ramadi.
- ↳ Relocating polluting (destroyed) industrial activities in built up areas that could free up valuable real estate within the city, for housing, education facilities and public amenities.
- ↳ Establish **terminals for trucks and trailers** in the suburb of the city, adjacent to the main city exits
- ↳ Upgrade infrastructure networks, parking and utilities in “**warehousing district**” to boost productivity of trade businesses and related services
- ↳ Ease **transport licensing** of private sector entrepreneurs
- ↳ Industrial modernization of Ramadi glass factory.
- ↳ **Upgrade infrastructure networks, parking and utilities** in “warehousing district” to boost productivity of trade businesses and related services
- ↳ Ease **transport licensing** of private sector entrepreneurs

- ↳ **Fast-track building applications to support entrepreneurs** investing in repairing or rebuilding their depots, factories and construction yards in Ramadi
- ↳ As part of longer term planning strategies, the team has identified a selected number of ‘development anchors’ which are deemed to offer the most tangible opportunities for public funds to leverage private investments
- ↳ Rehabilitate **key infrastructure and facilities** in order to support the restart of commercial and economic activities.
- ↳ Safeguard and enhance **Ramadi’s natural assets and localise agro-processing industries**, distribution, farm machinery, and seed supply, as well as marketing and retail sales.
- ↳ Promote **sustainable warehousing concept** by combining available technologies and solutions in terms of energy savings, heating and cooling systems, and alternative energy sources.
- ↳ Introduce the concept of **high tech serviced green business districts** alongside the West Pole that offer good quality open spaces and enhancing mixed use developments.
- ↳ Promote **technological modernisation** of Ramadi main factories and Introduce new non-polluting and efficient technology.
- ↳ Establish **serviced terminals for trucks and trailer parks** in the suburb of the city, adjacent

to the main city exits to boost productivity of trade businesses and related services.

- ↳ Promote **local tourism development** through small hotels/guesthouse projects, eco/sport tourism activities and amenities along the river
- ↳ Establish **high tech corridor** (companies, research institutions and industry organizations) linked to Anbar University to build diverse clusters of innovation and start-ups

HUMANITARIAN ASSISTANCE

- Life rescue
- Providing temporary shelters and services
- Cleaning up debris
- Non- Food items
- Protection
- Reconnecting families
- Winterization
- Demining
- Documentation
- Food and water

RECOVERY

- Recovering minimum standards public services
- Recovering economic facilities
- Rebuilding settlements and repairs.
- Transportation
- Telecommunications
- Institutional setups
- Governance and institutional setups
- Stabilization & Reconciliation

SUSTAINABLE DEVELOPMENT

Economic Growth -Employment Generation

Improving infrastructure and services

- Supporting the development of micro-enterprises
- Attracting private investment
- Promoting the local business sector
- Building technical and managerial capacity



Social Equity- Redistributing the benefits of growth

- Revitalizing distressed neighborhoods
- Expanding access to lands and services
- Developing human resources
- Empowering the poor



Environmental Quality- Improving living conditions

Expanding infrastructure and services

- Managing natural resources
- Valorizing cultural resources
- Abating pollution



RAMADI

SUSTAINABLE DEVELOPMENT

HOW TO ATTRACT INVESTORS

- **Develop high range utility networks** (electricity, water, communications/ ADSL).
- **Develop efficient transportation infrastructure** and (structural roads with walkability, protected crossings, parking and bus service), reduce traffic, shorten commute times, offer a Transit Oriented Development (TOD)
- **Initiate the construction of new “asset” buildings** at the core of the economic activity to attract new companies. Select best suitable location for new buildings to create an entrepreneur pool. Slowly transition from industrial to business and commerce. Innovation is the engine for development as it is the transformation of knowledge into economic value.
- **Promote new housing for different socio-economic level of the population** (villas, individual plots, social housing, studios and smaller apartments, including vertical housing). Fill unbuilt residential plots with smaller, cheaper dwellings. The closer the labour force, the easier the implementation of new companies. The more diverse the labour force qualification, the higher the innovation.
- **Invest in high quality public spaces.** Enhance “green spaces” solutions to reconnect different dispersed or isolated neighbourhoods to the economic activity zones. Involve the population in area planning by the offering “community plan” meetings after prayer near the mosques for example.

- **Reduce pollution, upgrade sewage networks,** purify water and air. Enforce green buildings and industries.

EXAMPLE OF SUCCESSFUL INITIATIVES BY ANBAR GOVERNORATE

Anbar Fourth Annual International Investment Conference to be held on September 26 - 27, 2018 AAIIC 2018

In partnership with the Governorate of Anbar and Anbar Investment Commission, the Anbar Fourth International Investment Conference will showcase more than 100 mega investment opportunities in Anbar, Iraq's largest province. Key investment opportunities spanning various sectors will be presented to attract local, regional and international investors coinciding with the commencement of reconstruction initiatives making Anbar the ideal destination for investment. Other investment opportunities will also be announced that will specifically target small and medium-sized enterprises.

The conference will:

- Highlight that Anbar is open for business and is potentially a high return market in which to invest and do business.
- Present several key reconstruction projects opportunities coinciding with the commencement of reconstruction initiatives in Anbar.
- Showcase major investment opportunities across various sectors & industries.
- Bring together key decision makers, government officials and delegation, and investors to discuss and develop opportunities in Anbar market across all the major sectors.

WHY INVEST IN ANBAR

- Abundance of raw materials and natural resources: oil and gas, Silicate, Bentonite, Kaolin, Iron, Magnesium, Lime Stone, Phosphate Rocks, and Bauxite.
- Abundance of fertile land
- Local and regional markets
- Eager labor force in multiple fields
- Largest Province in Iraq
- Proximity to Baghdad
- Significant transportation route bordering Syria, Jordan and Saudi Arabia
- Water Resources: Lake Habbaniyah, Lake Tharthar, Lake Al-Razzah, Euphrates River



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