

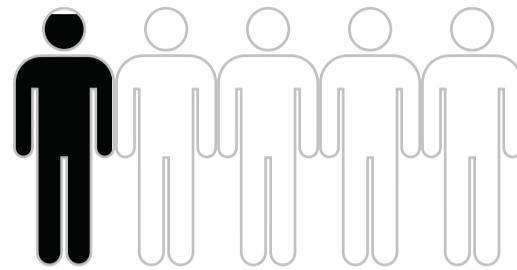
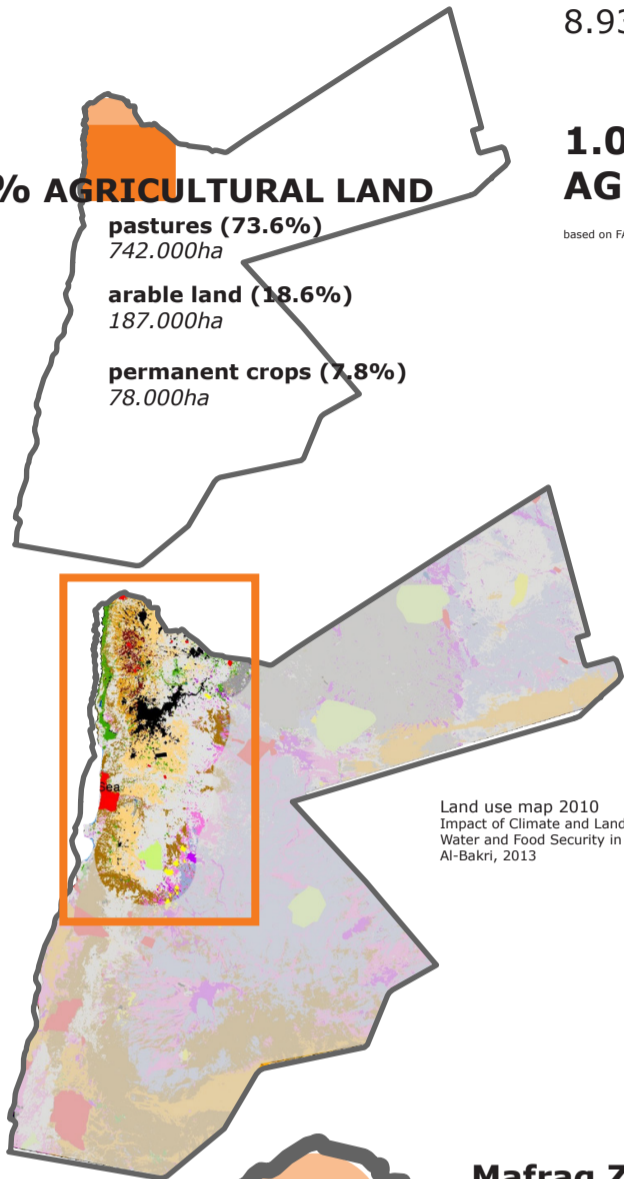
country size
8.932.000ha

1.007.000ha
AGRICULTURAL LAND

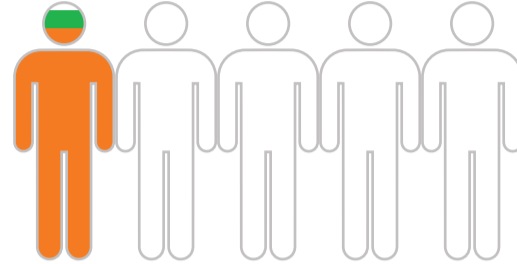
based on FAOSTAT 2017

11,3 % AGRICULTURAL LAND

- pastures (73.6%)**
742.000ha
- arable land (18.6%)**
187.000ha
- permanent crops (7.8%)**
78.000ha

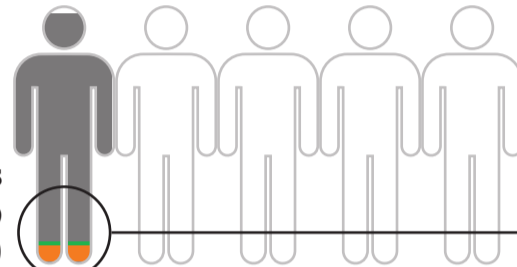


total population
9.903.802



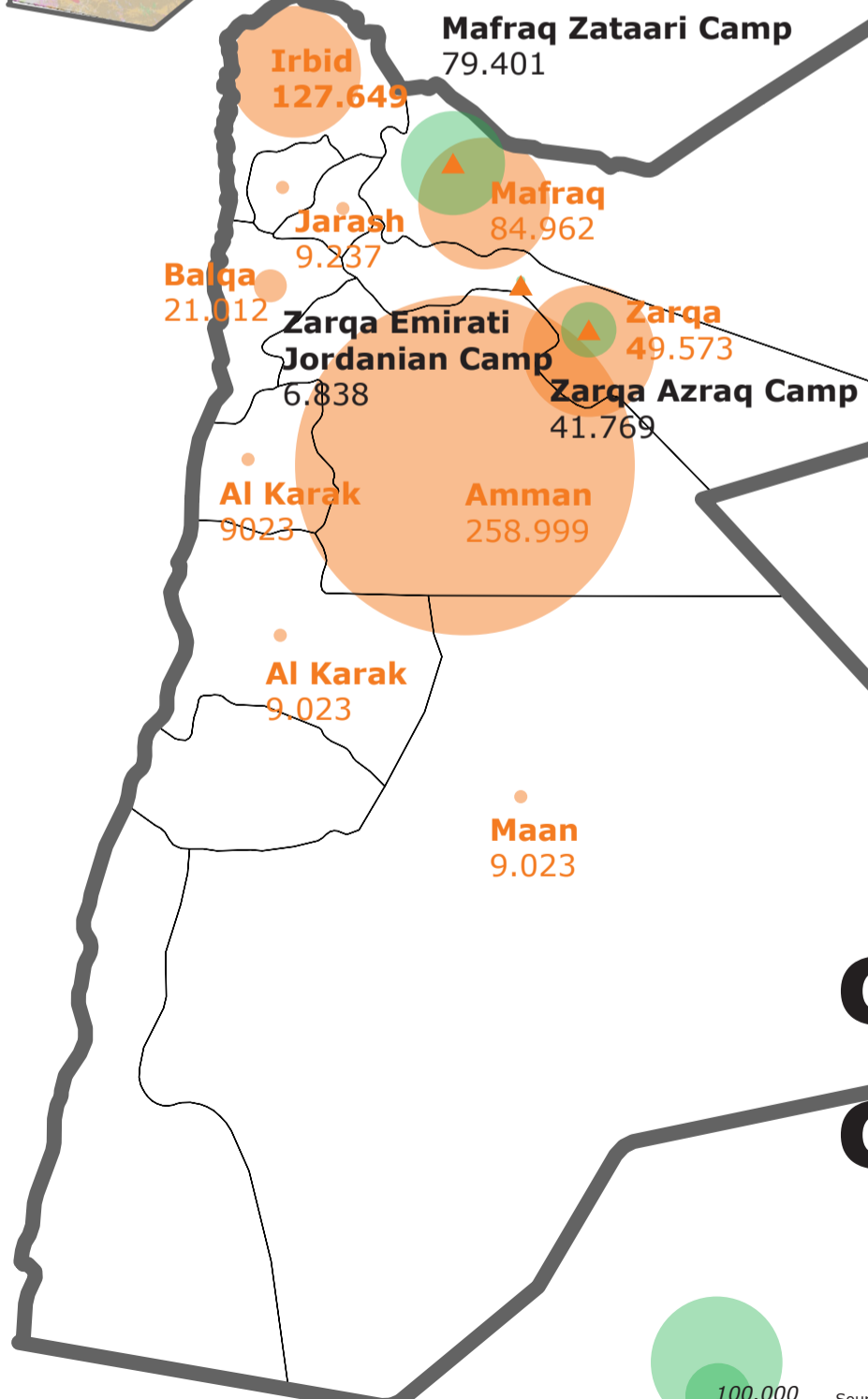
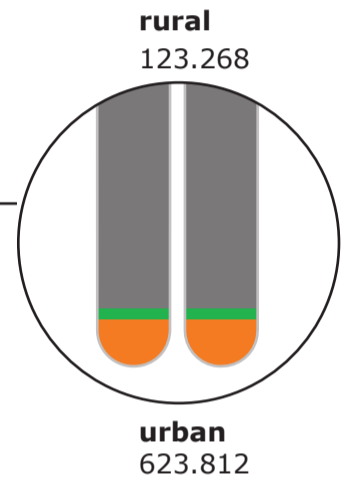
rural population
893.000

urban population
9.010.373



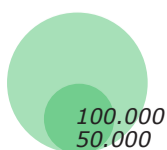
refugees
(as part of total population)
747.080

based on FAOSTAT 2018 & UNHCR Spet 2019



Even in years with above-average domestic production **>97% IMPORT** domestic cereal food and feed to meet requirements
FAO Country brief, 2019

concentrated challenges



Source:
UNHCR PopStats 2018
UNHCR Facsheet september 2019



WAGENINGEN
UNIVERSITY & RESEARCH



WATER STRESS

100,1% Aquastat

Freshwater withdrawal as % percentage of total renewable water resources

96,42 % (2016)

By sector (% of total water withdrawal)
AGRICULTURE 53,13%
INDUSTRIAL 3,1%
MUNICIPAL 43,7% Aquastat



76 BILLION LITERS/YEAR
lost by leakage

Tapped Out, MercyCorps, March 2014

2020 > 2030

↓ **20% to 30%** less **PRECIPITATION**

↑ temperature **+6 °C** and the number and duration of droughts will double.

↑ number
↑ duration **DROUGHT X2**

Future adaptation to extreme droughts in Jordan will be an immense challenge. The projected negative impacts of more severe droughts of greater duration **CALLS FOR ESSENTIAL ALTERNATIVES**

Increasing drought in Jordan: Climate change and cascading Syrian land-use impacts on reducing transboundary flow, Rajsekhar 2017
Jordan Water Project, Stanford Woods Institute for the Environment's Global Freshwater Initiative, 2017

OVEREXPLOITING GROUNDWATER RESOURCES
Amman Zarqa

194%

OVERPUMPING RATE

155% average Jordan

Jordan -Water along the food chain, FAO 2015

Reused wastewater is an essential element of Jordan's water strategy. Sewage treated wastewater should be the most important source of water in irrigation in the near future.

FAO Aquastats

Waste generation

urban 0.9 kg/person/day

rural 0.6 kg/person/day

50% ORGANIC

Solid Waste value chain analysis Irbid & Mafraq -Jordan, UNDP 2015

Jordan's annual renewable resources of less than

100m³ per capita

are far below the global threshold of severe water scarcity of 500m³ per capita

UNHCR



96.81 %
Energy imports 2014
Net % of energy use

WorldBank

By the end of 2018, Jordan was producing 1,130MW of power from renewable energy resources, accounting for about 11% of total electricity requirements.

AMBITION JORDAN

to **BOOST RENEWABLE**

ENERGY SOURCES 20% by 2025

Ministry of Energy & Mineral Resources (MEMR), 2019

AL ZA'ATARI

Al Mafraq

Al-Bādīah ash-Shamāliyah al-Gharbiyah
area 669 km²
density 66.900 ha
369.4 /km²

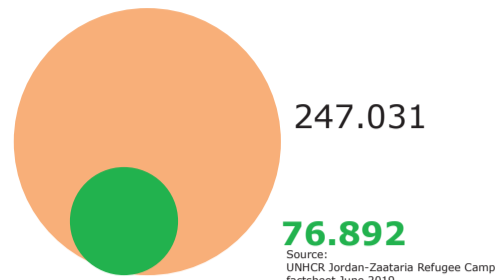
population 247.031 (2015)
74.965 (2004)

Qasabah al Mafraq

area 601 km²
density 326.7 /km²

population 196.196 (2015)
101.712 (2004)

ARID AREA



5,3 km²



12.9-megawatt SOLAR PLANT
opened in November 2017

saves around **5.5 million US \$/year**
provision of electricity to refugees' homes
from **8 hours up to 12 hours**

UNHCR Jordan-Zaataria Refugee Camp
factsheet June 2019

SOLID WASTE management

**& community-led
LOW COST RECYCLING**

are priorities UNHCR, 2019

**0.85 kg solid waste
produced per person per day**

M.N. Saidan et al./Waste Management 61 (2017)

750m³/day SOLID WASTE

WASTE GENERATION

60 TON/DAY UNHCR, 2016

currently controlled dumping at
the Al-Hussainyyat dumpsite

> 259 tonnes
collected every week for recycling.

Recycle project Oxfam, Sept 2019

WASTE TO ENERGY

initiative for **2 BIOGAS HUBS**

food and animal waste
> clean and safe fuel and fertilizer

2016 Clinton Global Initiative (CGI) and Solar C3ITIES

progress?

**water & waste water
NETWORK
recently developed**

2016

>3 internal wells

CAPACITY 3,800m³

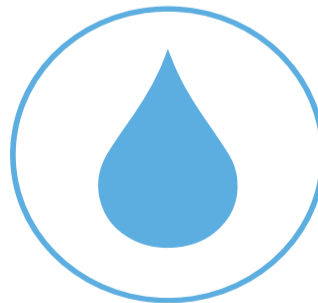
> wastewater treatment plant

CAPACITY 3,600m³/d;

+ piped water supply distribution system

+ piped sewage network

UNHCR, 2019



...still 35 liters per person per day,
which is under the absolute water scarcity level (of 60 l)?

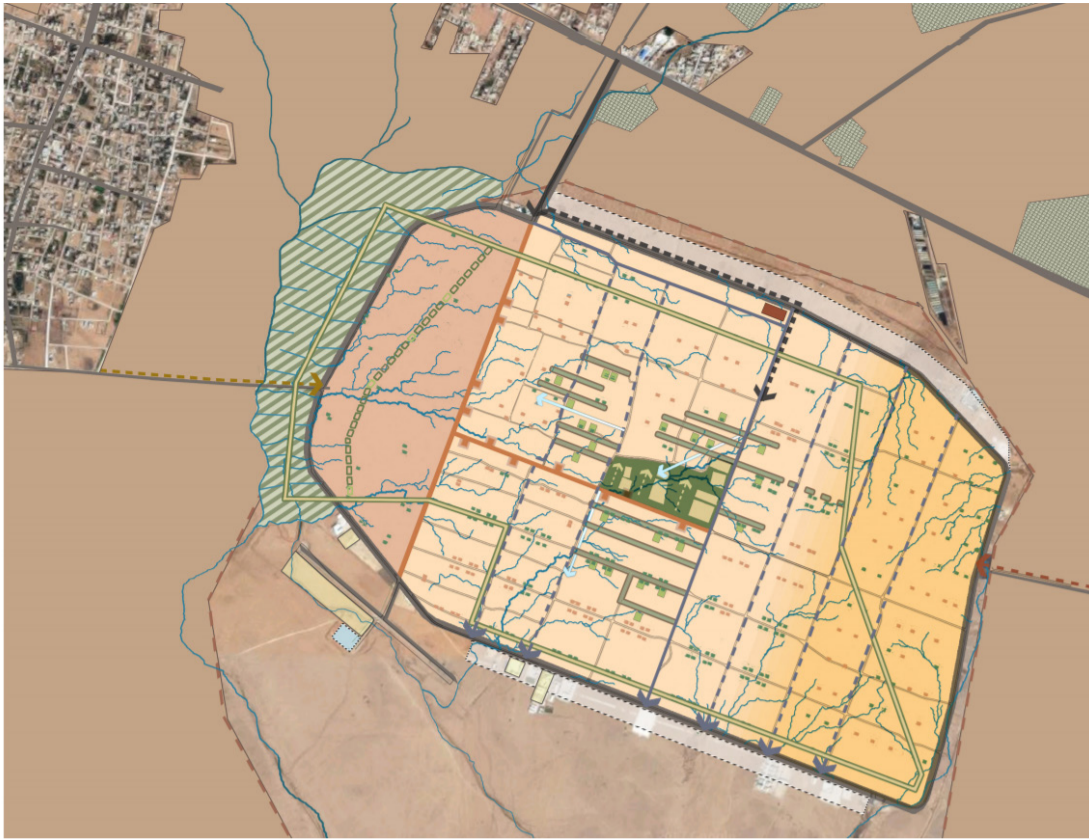
IFPO, 2018

**20 additional
watertrucks /day**

UNHCR, 2017



WAGENINGEN
UNIVERSITY & RESEARCH



Source: Concept Design WADI PARK, Za'atari Jordan, Lodewijk Baljon Landscape Architects 2018

Work permit holders

37% of Zaatari Camp
working age population (18 to 60)
Factsheet Al Zaatari, UNHCR, 2019

entrepreneurship & EMPLOYMENT

3,000 businesses
with a total value of

\$13 million per month
WEF, 2019

ZA'ATARI WADI *flood management*

the camp usually experiences harsh weather conditions during the winter months, an interagency winterization plan has been put in place to **mitigate the effects of the weather conditions**
UNHCR, 2019

