



# **GEOGRAPHIC MULTIDIMENSIONAL VULNERABILITY ANALYSIS - JORDAN**





# GEOGRAPHIC MULTIDIMENSIONAL VULNERABILITY ANALYSIS — EXECUTIVE SUMMARY

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## Objective and Background

The Geographic Multidimensional Vulnerability Analysis is a mapping tool for assessing the performance and supply capacity of different sectors for the purpose of identifying gaps, improve the allocation of resources, and policy planning, regardless of nationality.

This analysis covers multidimensional socio-economic vulnerabilities that can be used for designing appropriate adaptation and mitigation policies for poor and vulnerable populations in Jordan. Vulnerability analysis is conducted using a sectoral assessment approach, which covers: 1) Economic Outlook and Poverty, 2) Education, 3) Health, 4) Water and Sanitation, 5) Livelihoods, 6) Nutrition and Food Security, 7) Social Protection, 8) Local

Governance and Municipal Services, 9) Environment and Climate Change, 10) Housing, 11) Energy, 12) Transport, and 13) Justice.

The analysis relies on nationally representative surveys and administrative data from the government and other agencies:

- Household Expenditure and Income Survey (2017-18)
- Demographic and Health Survey (2017-18)
- VAF (UNHCR 2019)– Indicators related to Vulnerability Assessment for Syrian Refugees
- Comprehensive Food Security and Vulnerability Analysis (WFP-CFSVA, 2019)
- Administrative Data: Education, Health, WASH, Local Governance and Municipal Services, Energy, Justice, Transport, Environment, and Poverty.

## KEY FINDINGS Economic Outlook and Poverty

Compounding financial crises, political turmoil in the region (post-Arab spring), disruption in gas supplies from Egypt, and the Syria and Iraq crises severely affected the economy. Jordan's economic performance remained truncated in 2018, where the real GDP growth reached 1.9 per cent, which is a 0.2 percentage point decrease from 2017, this is also way below the average of 2.6 per cent between 2010 and 2016 (Central Bank of Jordan, 2018).<sup>1</sup> The Syria crisis has significantly impacted GDP growth for Jordan. According to IMF (2017), the estimated cumulative impact on GDP is about 18 per cent of annual GDP; this is majorly attributed to the disruption in the trade routes, which increased the trade deficit.

The absolute poverty rate in Jordan for all the population stood at 14.4 per cent in 2010, which increased to 15.7 per cent in 2018, whereas this poverty rate is only for Jordanians, meaning that more than 1 million Jordanian live below the poverty line (NSPS, 2019-2025)<sup>2</sup>. According to Census 2015, there are 3.16 million children in Jordan, more than 0.6 million are multidimensionally poor (moderate poverty level), and 0.04 are acute poor (UNICEF, 2018). In 2018, 78 per cent of the Syrian population was highly or severely vulnerable, living below the Jordanian poverty line.<sup>3</sup>

Multidimensional child poverty significantly differs across age groups, the highest headcount multidimensional child poverty among the Syrian children is recorded for children aged 0-5 years; 94 per cent, followed by children aged 15-17 years: 64 per cent, and 60 per cent for 6-14 old (UNICEF 2018).<sup>4</sup>

With the Syrian crisis in its eighth year in 2019, approximately 660,000 Syrian refugees are registered in Jordan as of August 2019, with an overwhelming majority (estimated 81 per cent) living out of camps.

## Education

### Key Statistics

- The expected years of schooling (13.4 years for females and 12.9 years for males) and means years of schooling (9.7 for females and 10.7 for males) have improved over the last decade (MOE, 2018).<sup>5</sup>
- Net Enrolment Rate (NER) for Jordanian boys and girls at the Basic education level is significantly high. Whereas, at the secondary level, NER for Jordanian boys is lower than for girls; this is majorly due to poverty and the need for boys to join the labor market as unskilled laborers.
- The female-male student ratio at basic education level is 96.3, whereas, at the secondary level, it is 114.8 (DOS, 2017).<sup>6</sup>
- Whereas, in terms of quality of education, there is still need for

<sup>1</sup> Available from: <http://statisticaldb.cbj.gov.jo/index?action=level4>

<sup>2</sup> National Social Protection Strategy-Jordan (2019). GoJ and UNICEF

<sup>3</sup> High Vulnerable: Expenditure per capita is less than the absolute poverty line of 68JD per person per month. Severe Vulnerable: Expenditure per capita is less than the abject poverty line of 28JD per person per month.

<sup>4</sup> UNICEF (2018) Assessment of Syrian Refugee Children in Host Communities in Jordan.

Available at: [https://www.unicef.org/jordan/resources\\_10112.html](https://www.unicef.org/jordan/resources_10112.html)

<sup>5</sup> MOE (2018) Education Strategic Plan 2018-2022.

<sup>6</sup> DOS (2017) Jordan in Figures 2017.

improvement, as 52 per cent of children in Jordan at late primary age today are not proficient in reading, adjusted for the Out-of-School children (World Bank, 2019).<sup>7</sup>

- Average number of Students per Class Unit: 25.1 (varies across governorates, highest rates are reported for Amman, Zarqa, and Irbid)
- Average number of Students per Teacher: 15.4 (Include MOE, other government, private and UNRWA schools; this differs across governorates, Amman, Zarqa and Irbid are worst performers)
- Percentage of Female School teachers to Total Teachers: 69.5 per cent
- Percentage of Students in Basic and Secondary Stages of Total Population: 20 per cent
- Percentage of Rented School Buildings of Total School Buildings: 35.5 per cent

## Health

Jordan has made considerable improvements over the last decade in the health sector. The health care system in Jordan provides comprehensive public health care services to most of its citizens, relatively at lower costs.

### Key Statistics:

- Fertility declined remarkably between 2012 and 2017-18 from

3.5 to 2.7 per woman, whereas for Syrians, the fertility rate is 4.7 (DHS 2017-18)<sup>8</sup>. The total fertility rate varies across the governorates, where the highest is reported in Mafraq, followed by Ajloun and Jerash.

- SDG target 3.2 refers to ending preventable deaths of newborns and children under five years of age. Infant mortality is 17 per 1000 live births, which is a bit higher than SDGs target of 12 per 1000 live births, under-five mortality is 19 per 1000 live births, which is lower than 25 per 1000 live births, as mentioned in the SDG target (DHS 2017-18).
- Eighty-six per cent of children age 12-23 months have received all basic vaccinations, while seven per cent of children in this age group 12-23 months have not received any vaccinations. Governorate of Ma'an and Aqaba are the worst performers in terms of provision of basic vaccination and relatively high percentage of children who didn't receive any kind of vaccinations.
- Three-fourth of the population is covered by health insurance (73 per cent). For Non-Jordanians: nearly 80 per cent of the population in Amman, Balqa, Madaba, Tafilah and Aqaba are not insured. These governorates, in addition to Syrians, also host other nationalities, living in ITS, small villages, and towns.
- Beds Capacity: Using a national standard of 18 beds per 10,000 people, excluding Amman as its

standard is 26 beds per 10,000 people. Mafraq, Zarqa, Jerash, and Madaba have the lowest beds capacity to serve the population, with nearly half of the population not covered by bed capacity in these governorates.

- Hospitals Capacity: Zarqa, Irbid, Jerash, Tafilah, and Mafraq need a significantly high number of hospitals to cover all the population which is to satisfy the national standard of one hospital for every 60,000 people. In Zarqa alone, there is a need for an additional 16 hospitals, which will cover 66 per cent of the additional population not covered by hospitals' capacity.

## Water and Sanitation

Jordan ranks as the world's second water-poorest country (MOWI, 2017). As a water-scarce country, Jordan has one of the lowest levels in the world of water resource availability per capita, with only 125 cubic meters per person per year in 2017.

### Key Statistics:

- The non-revenue water for 2017 is at 47.5 per cent (MOWI, 2017). The groundwater level in the principal aquifers drops at a rate of 2 meters per year, but the decline in some depleted areas reaches 5 to 20 meters (MoWI 2017).
- According to UNICEF and MOWI (2017): The highest waters

vulnerability index score was associated with the subdistricts of North West Badiyeh, Azraq, Mafraq, Sahab, and Ajloun. Among those seven sub-districts are the two with the highest numbers of Syrian population (Kasabeh Irbid and North-West Badia).

- The sanitation vulnerability maps of 2018 identified 77 out of a total of 88 sub-districts as high to severe vulnerable based on sanitation vulnerability criteria. The highest sanitation vulnerability index correspond to North-West Badia (Mafraq), Era and Yarqa (Balqa), Allan, Zai (Balqa), Azraq, Mafraq, and Sahab (Amman). It is also fair to conclude that districts hosting Syrian refugees are the worst performers. Irbid (Bani Kenana, Kourah, North Gour, North Mazar, Taybeh, Wasateyeh), Mafraq (North Badiyeh, North-west Badiyeh, Rwaished), Karak (Aiy, Fakou, Qase, Qatraneh, South Gour and South Mazar) and Tafileh (Bsairah, Hasa) governorates have the lowest access to the public sewerage network.

## Livelihoods

The average unemployment rate of governorates with the most massive influx of refugees increased by about 3.3 per cent since the beginning of the Syrian Refugee Crisis (IMF 2017).<sup>9</sup> Labor force participation likewise slightly reduced in the governorates with a large influx of refugees.

<sup>7</sup> World Bank (2019) *Learning Poverty in Jordan*.

<sup>8</sup> Demographic and Health Survey-Jordan, *Formally Population and Family Health Survey 2017-18*.

<sup>9</sup> IMF (2017) *Jordan Selected Issues*. IMF Country Report No 17/232 Washington D.C.

### Key Statistics:

- The unemployment rate in Jordan was 12 per cent in 2014, which increased to 18.7 per cent in 2018 and reaching 19.1 per cent in Q3 of 2019. The unemployment rate is on the rise with increasing rates for females and currently it is 28 per cent. Overall female unemployment rates for Jordanian population is high in Jerash, Tafilah, Irbid, and Aqaba, whereas for Male, highest rates of unemployment were reported in Madaba, Zarqa, and Ma'an.
- The female economic participation in Jordan is considered as one of the lowest compared to other countries; according to the GCR report (2018), Jordan is ranked 133 out of 140 countries for the Female Labor Force Participation Rate indicator. The female labor force participation rate dropped slightly from 14.7 per cent in 2010 to 13.2 per cent in 2016, while the married women labor force participation rate fell from 12.7 per cent in 2010 to 10.7 per cent in 2016 (Amer, 2018).<sup>10</sup>
- The average working person in the poorest decile earns only 241JD/month, including overtime and bonuses. Nearly half of the working poor are employed in the informal sector, which would mean no social security coverage.
- The unemployment rate for 15-19 years young people is 48.7 per cent, and for 20-24 years, the unemployment rate is 38.5 per cent (DOS 2019).<sup>11</sup> This has

some huge implications for the young population, who are economically active. The results also show that 54.7 per cent of the Unemployed are secondary certificate holders or higher and that 45.3 per cent of the unemployed have less than secondary school qualifications (DOS, 2019). In the case of Jordanian female youth, the highest unemployment rates are reported in Jerash, followed by Amman, Zarqa, and Balqa, where the unemployment rates are above 60 per cent. Syrians: For the young female unemployment rate, Tafilah and Balqa have the highest unemployment rate followed by Zarqa, where very few young girls are employed in the labor market.

- The NEET rate for young people from 15-29 years was 39.4 per cent in 2016 (Amer, 2018). It is much higher for women than for men.<sup>12</sup>
- Despite the rising support, entrepreneurship remains a challenging endeavor. More than half of youth indicate they would like to own their businesses, showing a marked interest in entrepreneurship.
- In 2018, Jordan was ranked 103 out of 190 countries in the Cost of Doing Business.<sup>13</sup>

## Nutrition and Food Security

### Key Statistics:

- The minimum acceptable diet indicator is used to assess the proportion of children age 6-23 months who meet minimum standards concerning IYCF practices. Minimum acceptable diet varies across different age brackets and increasing with the increase in age, for instant: for children from 6-8 months, only 12 per cent are getting a minimum acceptable diet whereas for children from 18-23 months nearly one-third of them received minimum diet. There is no significant difference for males and females, though, for females, only 21.7 per cent are receiving a minimum acceptable diet. For Syrian children the situation is much worse, where only 15 per cent in total receive a minimum acceptable diet, while for Jordanians, it is 24 per cent. Minimum diet diversity varies across governorates, with Mafraq (14.3 per cent), Madaba (13 per cent) and Tafilah (13 per cent) having the lowest minimum diet diversity among all the 12 governorates.
- Anaemia is common among children in Jordan; almost one-third of children are anaemic (32 per cent). Most of the children with anaemia have mild anaemia (21 per cent of all children). Eleven percent have moderate anaemia, and less than 1 per cent of children have severe anaemia. The prevalence of anaemia among children living in the North

region (38 per cent) is higher than among those living in the Central or South regions (29 per cent for both regions). The prevalence of anaemia varies from 17 per cent in Tafilah governorate to 41 per cent in Ajloun. Children of Syrian mothers have slightly higher rates of any anaemia than do children of mothers of other nationalities (DHS, 2018).

- Anaemia is also common among women in Jordan, where 43 per cent of women tested are anaemic. Most of those with anaemia have mild anaemia (36 per cent of all women), while 6 per cent of women are classified as having moderate anaemia and less than 1 per cent have severe anaemia. The prevalence of anaemia ranges from a low of 35 per cent of women in Madaba governorate to a high of 49 per cent of women in Ma'an governorate (DHS, 2018).
- Food Security for Vulnerable Jordanians: Seven out of ten vulnerable Jordanian households were vulnerable to food insecurity (59 per cent) or food insecure (11 per cent), with the highest proportion of food-insecure households reported in Karak and Madaba (17 per cent) (WFP, 2019).
- Over the two years from 2016-18, food security deteriorated slightly among registered Syrian refugees living in host communities. In 2018, 20 per cent of registered Syrian refugee households in host communities were food-secure, compared with 28 per cent in 2016 (WFP, 2019).

<sup>10</sup> Amer, M (2018) School to Work Transition in Jordan 2010-2016. Working Paper No. 1196: ERF

<sup>11</sup> DOS (2019) Labor Force Quarterly Survey. Available at: [http://dos.gov.jo/dos\\_home\\_e/main/archive/Unemp/2019/Emp\\_Q1\\_2019.pdf](http://dos.gov.jo/dos_home_e/main/archive/Unemp/2019/Emp_Q1_2019.pdf)

<sup>12</sup> Not in Employment nor in Education and Training.

<sup>13</sup> The distance to frontier (DTF) measure shows the distance of each economy to the "frontier," which represents the best performance observed on each of the indicators across all economies in the sample since 2005. An economy's distance to frontier is reflected on a scale from 0 to 100, where 0 represents the lowest performance and 100 represents the frontier. The ease of doing business ranking ranges from 1 to 190.

## Social Protection

Social protection provision in Jordan involves a multitude of actors and programmes. These include several government ministries and departments: Ministry of Social Development (MoSD), Ministry of Labour, Ministry of Awqaf, Islamic Affairs and Holy Places, Ministry of Education, Ministry of Health, Ministry of Finance. National Social Protection Strategy (2019-2025) discusses targeted assistance, where the government provides targeted, temporary social assistance to citizens who are unable to be economically self-sufficient, allowing them to maintain a basic level of consumption. Under the social assistance component, there are two major programmes in Jordan, National Aid Fund (NAF) and Zakat fund.

### Key Statistics:

- Jordan has a plethora of separate programmes with similar goals, resulting in inefficient spending on duplicated efforts (as well as impeding transparency and accountability.) Until 2019, criteria for targeting cash assistance has been focused on those who are unable to work due to disability or old age. Between 2012 and 2017:
  - o Targeted social assistance decreased by 9 per cent or JD 21 million
  - o Non-targeted subsidies decreased by 88.4 per cent or JD 788 million
- This decline in subsidy was not directed to targeted social assistance.

- On average, 37 per cent of the beneficiaries of unconditional cash transfer programmes are in the poorest 20 per cent of the population. For NAF, 47 per cent of recipients are in the poorest 20 per cent of the population.
- NAF: Though the household grant covers a considerable number of households over the year, the number of children targeted under these programmes remains low; in 2018, only 119,972 children were targeted, which is only 2.9 per cent of the total children population.
- Nearly half of the Jordanian households earning less than JOD 7500 per year are not receiving any assistance, only 7 per cent of the households earning less than JOD 2500 per year are receiving NAF assistance and 1 per cent from Zakat Fund.

## Local Governance and Municipal Services

The government of Jordan has been committed to the 2015 Decentralization Law, and Municipality law reflects the commitment towards a culture of popular participation at the sub-national levels of the government. This law will introduce a new level of decision-making at the governorate level, where the governorates will plan and prioritise the development projects and also prepare and ratify the

budgets. The local governance law is going to have an overlap with the roles and responsibilities aforementioned in Municipality authority duties.

### Key Statistics:

Here are some of the significant statistics for solid waste management for Jordan, which would require substantial budgetary allocations for technological advancements and deal with the rising demand for solid waste management (DOS 2017):

- Quantity of Solid Waste of Municipalities 2016: 3.5 Million ton
- Fees of Solid Waste Collection and Transport from all sectors 2016: 37 Million JD.
- The percentage of automated and electronic waste disposal in the medical waste sector in 2016: 3 per cent
- The percentage of automated and electronic waste disposal in the industrial sector in 2016: 89 per cent

Ninety-eight per cent of children under age 5 had their births registered with the civil authorities; this includes 89 per cent with a birth certificate and 9 per cent whose birth was registered but who do not have a birth certificate (DOS 2018).

## Environment and Climate Change

### Key Statistics:

- The minimum average temperature

increased by 0.6-0.7 °C since 2000, and the maximum average temperature by 1.3-1.4 °C (DOS, 2017).<sup>14</sup>

- Government of Jordan is determined to reduce its greenhouse gas emissions by a bulk of 14 per cent by 2030. However, Jordan also agreed to reduce GHGs by additional 12 percent subject to financial aid.
- CO2 emissions for Jordan were 22,772 kt in 2016, which increased considerably over the years, where it was only 14,721 kt in 1997, growing at an average annual rate of 2.4 per cent (knoema, 2018<sup>15</sup>) which though is only 0.6 per cent of the world emission.
- Findings from Jordan's third national communication on climate change depicts that dynamic projections predict more extremely likely heatwaves and the analysis of summer temperature; monthly values and the inter-annual variability reveal that some thresholds could be exceeded especially for a summer month where the average of maximum temperature for the whole country could exceed 42-44°C.
- According to the Ministry of Agriculture, afforestation is one of the priorities, wherein 925 dunums were afforested in the country in 2017, which had decreased significantly in comparison to 2015 when 6350 dunums were afforested (DOS 2017).<sup>16</sup>

<sup>14</sup> DOS (2017) Jordan in Figures.

<sup>15</sup> <https://knoema.com/atlas/Jordan/CO2-emissions>

# Housing

## Key Statistics:

- DHS (2017-18) collected data on housing characteristics such as type of housing, flooring/wall/roof materials, and the number of rooms used for sleeping. The data show that 71 per cent of housing units in urban areas are apartments, as compared with 24 per cent in rural areas. Dars, which are homes that are built with an enclosed central yard, account for 74 per cent of housing in rural areas compared with 26 per cent in urban areas.
- In homes, the most common flooring materials are tiles (60 per cent of households) and ceramic tiles (37 per cent). Three in five households (60 per cent) in Jordan have four or more rooms in the house, and 44.3 per cent of households use two rooms for sleeping.
- Housing Crisis: According to Jordan Housing Developers Association (JHDA), the country is facing a severe crisis for affordable housing. The influx of nearly 1.5 million refugees from the neighboring countries compete with the locals for affordable housing. The real estate market declined by 7 per cent, wherein the first quarter of 2018 was JD 1.4 billion. The estimates from JHDA show that total value housing units built from 2015 to date, which remain unsold, are put at JD 1 billion. According to the association 32 per cent of Jordanians who bought apartments in 2017 chose ones that were smaller.

# Energy

## Key Statistics:

- The country has two main challenges regarding its energy situation: the growing energy demand and on the other hand, very limited domestic resources to fulfill this demand.
- Jordan is considered an energy insecure country as it was importing 92 per cent of its energy in 2018; on the positive end, 100 per cent of the population has access to electricity.
- The local production of energy – including crude oil, natural gas, and renewable energy remained consistently low as a percentage of the total energy needs of the country, whereas only 0.79 Mtoe energy produced in 2018 and the country had to import 9.1208 Mtoe in 2016.
- Electricity consumption has increased four-fold since 1990 to 2018; the total energy consumption has reached 17.53 TWh.
- The renewable energy share in the total final energy consumption for 2018 is 10.35 per cent.
- Per Capita Primary Energy Consumption has decreased from 2011 (1193 kgoe) to 2017 (996 kgoe), while Per Capita Consumption of Electricity went down from 2166 kwh in 2011 to 1748 kwh in 2017, demonstrating that people cannot afford the previous level of consumption.

# Transport

## Key Statistics:

- Jordan transportation system faced several problems in the last decade and with the influx of Syrian refugees; the situation has worsened. A few of the significant issues are congestion and frequent traffic jams, an increase in car ownership ratio, road capacity, traffic demand management, drivers and pedestrians' behavior, lack of reliable public transportation system, absence of national railway system, increase in transport due to Syrian influx. According to the National Transport strategy, the capacity of a road provided is sufficient, but road users are faced with forced traffic flow and congestion, particularly in and around urban areas at certain peak times of the day or the week. These conditions will worsen over time as transport demand is forecasted to increase.
- Road safety is one of the major areas of concern in the country. Jordan has one of the world's highest rates of road fatalities, suggesting that urgent attention is required to create safer roads and neighborhoods. There are 23 road fatalities per 100,000 population.<sup>17</sup>
  - Transportation cost is one of the major household costs incurring for all the income deciles. For the lowest two income groups, nearly 10 per cent of the non-food item cost is associated with travel whereas it is 23 per cent for the wealthiest households (HIES, 2018).

# Justice

## Key Statistics:

- Jordan's overall rule of law performance for 2019 is confirmed as ranked 2 out of 8 countries in the Middle East & North Africa region, 49 out of 126 countries and jurisdictions worldwide and 11 out of 38 as lower-middle-income countries.<sup>18</sup> Jordan has scored significantly better in terms of provision of civil justice and criminal justice with the overall rank of 32 and 28, respectively, out of 126 countries, but the factor score can still be improved.
- The percentage of felonies of total general crimes is 71 per cent, whereas the total change in general crimes (2014-18) is -8 per cent. So here we observe a significant decline in the last four years.
- Trends in crime rate per 1000 population; there is a significant decline that can be observed since 2014, where it was 3 to 1000 population, and in 2018, it was 2.4.
- Court client satisfaction survey by the Ministry of Justice revealed that 78.9 per cent are satisfied with services provided at court. The same survey shows that partners satisfaction during the last 4 years is between 83-85 per cent.
- Crimes related to sexual abuse and exploitation is increasing over the years, with 766 cases reported in 2014, but it reached 1023, which is 14 per cent of the total felonies in 2018 (DOS, 2018).

<sup>16</sup> DOS (2017) Figures in Jordan- Environment and Climate Change

<sup>17</sup> Jordan 2025 A National Vision and Strategy

<sup>18</sup> According to the latest World Justice Report Rule of Law Index (2019)





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