

# COD-PS Burkina Faso

## Update Year 2023 / Reference Year 2023

### Objective of This Explanatory Technical Note

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This explanatory technical note provides supplementary notes on the strengths and limitations of each Common Operational Dataset on Population Statistics (COD-PS) against the projections by the WPP 2022 Revision of the UN to enable informed humanitarian decision-making.

### Structure of Supplementary Note

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This supplementary note is organized into the following sections:

1. Metadata
2. Methodological Documentation
3. Intrinsic Population Growth Rates (ADM-0 & 1)
4. Population counts by age and sex (ADM-0)
5. Relative population size by age and sex (ADM-1)

### 1. Metadata

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Item	Metadata
Country	Burkina Faso
Source(s)	INSD Burkina Faso
Source(s) Link(s)	<a href="http://www.insd.bf/index.php/publications?id=199">http://www.insd.bf/index.php/publications?id=199</a>
Population Data Type (Census enumeration, Direct estimate, or Population projection)	Population projection
Year of the Baseline Population	2019
Reference year of this COD-PS	2023
Publication year of this COD-PS	2023
ADM-1 Name	Region
ADM-1 Number of Units	13
ADM-1 Sex and Age Disaggregation	Sex and age disaggregated by 5-year age groups

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<b>Item</b>	<b>Metadata</b>
ADM-1 Open-ended Age Group	80+
ADM-2 Name	Province
ADM-2 Number of Units	45
ADM-2 Sex and Age Disaggregation	Sex and age disaggregated by 5-year age groups
ADM-2 Open-ended Age Group	80+
General Notes	The INSD Burkina Faso utilised technical support from GRID3 (UNFPA partner program specialising in the production, dissemination and use of high-resolution geo-referenced data) to estimate the 2019 census populations in the areas not covered or partially enumerated due to insecurity. The estimates used available demographic and geospatial variables such as the building footprint (shape of dwellings and non-residential buildings) from satellite imagery, the network of primary and secondary roads provided by the Geographical Institute of Burkina Faso, 2019 census demographics, and other statistical sources.
Data Limitations	There are three potential limitations in this COD-PS. First, because the baseline population for the hard-to-reach areas were estimated using geospatial methods, the margins of error from geospatial estimation in lieu of enumeration would propagate or grow throughout the projection period. Second, this COD-PS may not reflect well subnational population dynamics because the projections were built with a top-down approach, overall. The NSO projection report, on which this COD-PS is based, only discloses the usage of national-level fertility, mortality, and migration assumptions, although the subnational projections tried to mitigate it by taking into account regional and provincial rates of growth derived from the historical trends using past censuses. Third, judging by the projection report, it is unclear how the historical rates of urbanisation were applied to derive internal migration assumptions.
COD-PS Demographic Data Quality Assessment	The COD-PS was assessed against ADM-0 estimates and projections published in the World Population Prospects (2022 Revision) by the United Nations Department of Economic and Social Affairs (UN-DESA).

## 2. Methodological Documentation

Item	Methodological Documentation
Methodology Used	Cohort component method was applied to the baseline population of the 2019 census to produce the postcensal projections on which this COD-PS is based. For subnational projections, a top-down approach was used. The national level projection was first constructed, then subnational projections were built based on the historical growth rates of the population proportion of each region and province as well as regional- and provincial-level sex ratios projected using historical trends.
Baseline Population	2019 census
Post-enumeration survey (PES)	The PES revealed an omission rate of 6.4% at the national level. But the two major cities of Burkina Faso, Ouagadougou and Bobo-Dioulasso, present the highest rate of omission (12.1%). These results led the Burkina Faso NSO to adjust the data accordingly.
Assessment and Adjustment of the Baseline Population	Raw data from the 2019 census (5th RGPH) by age had irregularities. Therefore, the Burkina Faso NSO smoothed the raw census data from 2019 prior to building the postcensal projections.
Fertility (births)	Fertility assumptions were based on the following factors: increasing prevalence of contraceptive use (prevalence of 46.8% in 2030 and 61.8% in 2065), decreasing proportion of married women among those 15-49 years old (0.3% point reduction per year), constant level of sterility [proportion of women 45-49 years without a child] of 2.8% , slow decline in the average duration of postpartum infecundability [also known as postpartum insusceptibility] (16.5 months in 2010 to 11 months in 2065) due to declining breastfeeding rates, and constant level of abortion at 0%.
Mortality (deaths)	Mortality assumptions were based on the historical trends from the past censuses (1960, 1975, 1985, 1996, 2006) to the 2019 census. Over the periods 1996-2006 and 2006-2019, there is an annual increase of life expectancy at birth of 0.3 and 0.4 years for men and women, respectively. On this basis, life expectancy at birth was assumed to increase by 0.35 years per year. Age-specific mortality rates were derived using the Coale-Demeny model life table (North).
International migration (net migration)	This COD-PS assumes a constant net migration rate derived from the 2019 census: -25,000 per year for men and -5,000 per year for women.
Internal migration (migration within country)	The NSO projection report does not list ample information on internal migration assumptions. It only states that the postcensal projections were based on the historical trend of increasing urbanisation rate (2.5% in 1960 to 26.1% in 2019) without details on how it was applied to derive internal migration assumptions.

### 3. Intrinsic Population Growth Rates (ADM-0 & 1)

At ADM-0, the postcensal (2019-2023) population growth rates implied by this COD-PS are 2.73% per year (female 2.69%, M: 2.77%), which are generally consistent with the rates implied by WPP. At ADM-1, this COD-PS implies postcensal population growth in all regions. The NSO predicts the highest level of growth in the region of Centre (3.67% per year: female 3.28%, male 4.07%) due to the presence of the national capital within the region, followed by the region of Cascades (3.11% per year: female 2.96%, male 3.26%) due to its proximity to the second largest city and trading hub of Burkina Faso, Bobo-Dioulasso. In contrast, the NSO predicts relatively lower rates of growth in the northern regions, which border the non-urban parts of Mali.

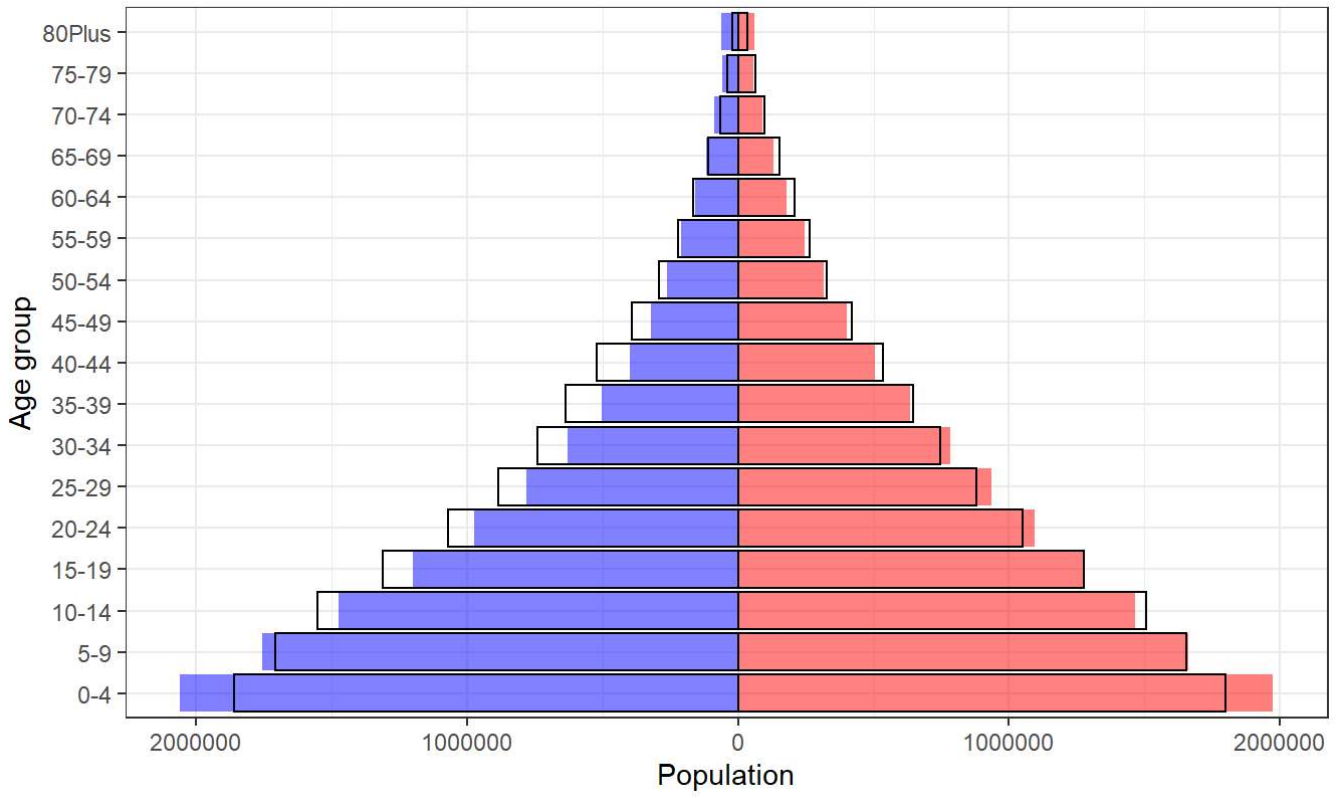
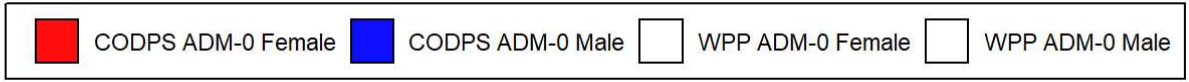
<b>ADM-1</b>	<b>Last Census, Female</b>	<b>Last Census, Male</b>	<b>CODPS, Female</b>	<b>CODPS, Male</b>	<b>PGR(%), Female</b>	<b>PGR(%), Male</b>	<b>PGR(%), Both</b>
Boucle Du Mouhoun	955,086	946,183	1,049,130	1,031,594	2.35	2.16	2.26
Cascades	420,560	391,906	473,492	446,517	2.96	3.26	3.11
Centre	1,540,872	1,489,512	1,757,045	1,752,983	3.28	4.07	3.67
Centre- Est	845,623	734,885	929,201	819,925	2.36	2.74	2.55
Centre- Nord	987,255	887,414	1,101,439	984,803	2.74	2.60	2.67
Centre- Ouest	891,548	768,587	983,228	845,251	2.45	2.38	2.42
Centre- Sud	414,493	374,238	452,088	405,580	2.17	2.01	2.09
Est	990,126	952,679	1,111,761	1,072,832	2.90	2.97	2.94
Hauts- Bassins	1,145,740	1,094,100	1,272,663	1,237,835	2.63	3.09	2.86
Nord	899,373	822,742	1,005,699	893,752	2.79	2.07	2.43
Plateau- Central	520,027	458,587	572,878	502,071	2.42	2.26	2.34
Sahel	541,341	556,836	599,100	601,785	2.53	1.94	2.23
Sud- Ouest	452,264	423,178	500,569	465,694	2.54	2.39	2.46
<b>Total</b>	<b>10,604,308</b>	<b>9,900,847</b>	<b>11,808,293</b>	<b>11,060,622</b>	<b>2.69</b>	<b>2.77</b>	<b>2.73</b>

## 4. Population Counts by age and sex (ADM-0)

Below, we compare the population structure across sex and age groups between the NSO and WPP projections at the national level. For both sexes, the NSO projects higher levels of fertility than WPP (female: +9.85%, male: +10.85%). While the female population counts of this COD-PS at ADM-0 are generally consistent with the WPP ADM-0 projection, the male population counts of this COD-PS at ADM-0 are generally lower than the WPP ADM-0 projection among 10-49 years, by a range of -4.86% to -23.24%. This discrepancy may result from the fact that the NSO projections are based on the country-specific assumption of constant net outmigration of -25,000 per year for males but -5,000 per year for females.

	<b>CODPS-WPP, Female</b>	<b>Difference(%)</b>	<b>CODPS-WPP, Male</b>	<b>Difference(%)</b>
0-4	177,156	9.85	201,620	10.85
5-9	5,534	0.33	49,282	2.89
10-14	-40,418	-2.69	-75,340	-4.86
15-19	-4,354	-0.34	-109,936	-8.38
20-24	44,660	4.26	-94,820	-8.87
25-29	55,696	6.33	-102,139	-11.56
30-34	37,430	5.01	-112,398	-15.17
35-39	-12,152	-1.88	-131,657	-20.70
40-44	-28,590	-5.34	-120,971	-23.24
45-49	-17,438	-4.16	-73,470	-18.67
50-54	-9,698	-2.97	-28,840	-9.93
55-59	-17,980	-6.77	-13,708	-6.15
60-64	-28,230	-13.54	-6,008	-3.63
65-69	-22,486	-14.75	7,184	6.43
70-74	-8,307	-8.36	20,807	31.87
75-79	-7,710	-12.20	19,027	46.91
80Plus	22,438	61.91	43,242	217.34

# WPP ADM-0 vs CODPS ADM-0



## 5. Relative population size by age and sex (ADM-1)

Below compares relative population proportions by sex and age between NSO ADM-1 and WPP ADM-0 projections. The NSO predicts for the region of Centre, where the national capital is located, a population structure where the working-age adult proportions are higher and those of 0-19 year olds lower than both WPP and other regions. For all other regions, the NSO projects population proportions that are similar to each other and follow the NSO ADM-0 projection closely.

