**Supplementary Materials:**

**Multihazard Risk Assessment for Planning with Climate in the Dosso Region, Niger**

Maurizio Tiepolo, Maurizio Bacci, Sarah Braccio

**Table S2.** SPI 1981-2017 for the municipalities of the Dosso Region (6= June, 7 = July, 8 = August; 9 = September)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Municipality** | **1981** |  |  |  | **1982** |  |  |  | **1983** |  |  |  | **1984** |  |  |  | **1985** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | 0.38 | 0.88 | -0.87 | -0.14 | -0.21 | -1.53 | -0.23 | -0.38 | 0.96 | -1.08 | -2.03 | 1.07 | -1.92 | -1.96 | -2.22 | -0.12 | -0.32 | -0.81 | 0.70 | 0.10 |
| Bengou | 0.89 | 1.04 | -1.03 | -0.09 | -0.19 | -1.52 | -0.46 | -0.53 | 0.63 | -1.20 | -1.74 | 1.26 | -1.92 | -1.81 | -1.94 | 0.31 | -0.53 | -0.61 | 0.47 | -0.04 |
| Birni Ngaoure | -0.67 | 0.85 | -0.89 | -0.11 | 0.04 | -1.89 | 0.38 | -1.41 | 0.61 | 0.13 | -1.88 | 0.20 | -0.46 | -2.07 | -1.95 | 0.36 | -0.36 | -0.76 | 0.45 | -0.08 |
| Dan Kassari | 0.09 | 0.82 | -0.20 | 0.14 | -0.23 | -0.39 | 0.76 | -1.70 | -0.77 | -0.47 | -0.97 | 0.61 | -0.89 | -1.95 | -2.55 | 0.91 | 0.14 | -1.45 | 0.60 | 0.26 |
| Dioundiou | -0.43 | 1.49 | -0.76 | 0.15 | 0.36 | -1.56 | 0.16 | -1.45 | 0.28 | -0.99 | -1.47 | 0.33 | -1.25 | -1.91 | -2.62 | 0.15 | -0.51 | -1.15 | 0.95 | 0.15 |
| Dogon Kirya | -0.02 | 0.84 | -0.24 | -0.17 | 0.19 | -0.48 | 0.42 | -1.90 | -1.03 | 0.59 | -1.25 | 0.26 | -0.92 | -1.82 | -2.57 | 1.16 | 0.22 | -1.54 | -0.09 | -0.06 |
| Dogondoutchi | 0.79 | 0.59 | -0.17 | -0.05 | 0.07 | -1.11 | 0.75 | -1.69 | -0.26 | 0.18 | -0.94 | 0.40 | -0.65 | -2.37 | -2.53 | 0.23 | -0.74 | 0.07 | -0.43 | 0.01 |
| Dosso | -0.07 | 0.49 | -0.60 | -0.03 | 0.07 | -1.82 | 0.03 | -1.44 | 0.66 | 0.38 | -1.67 | 0.14 | -0.37 | -2.22 | -2.03 | 0.32 | -0.81 | -0.93 | 0.52 | -0.15 |
| Doumega | -0.09 | 1.36 | -0.63 | 0.07 | 0.33 | -1.13 | 0.78 | -1.61 | -0.18 | -0.96 | -1.70 | 0.06 | -0.69 | -2.43 | -2.65 | -0.09 | -0.77 | -1.00 | 0.69 | -0.31 |
| Fabidji | -0.91 | 0.28 | -0.80 | -0.26 | 0.80 | -1.98 | -0.21 | -1.39 | -0.08 | -0.27 | -2.00 | 0.23 | 0.41 | -2.05 | -1.85 | 0.45 | 0.05 | -1.09 | 0.74 | -0.04 |
| Fakara | -0.92 | 1.26 | -1.11 | -0.38 | -0.22 | -2.05 | -0.38 | -1.09 | 1.50 | 0.31 | -1.92 | 0.85 | -1.11 | -2.05 | -1.69 | -0.37 | -0.50 | -0.93 | 0.19 | 0.01 |
| Falmey | -0.95 | -0.06 | -0.56 | -0.34 | 0.94 | -1.66 | -0.15 | -1.14 | 0.08 | -0.56 | -1.75 | 0.39 | -0.09 | -1.84 | -2.12 | 0.57 | -0.35 | -0.84 | 0.26 | 0.17 |
| Falwel | 1.14 | 0.31 | -0.06 | -0.28 | -0.17 | -1.39 | 0.96 | -1.52 | 0.47 | 0.56 | -1.12 | 0.39 | -1.38 | -1.76 | -2.64 | 0.28 | -0.75 | -0.75 | -0.04 | -0.10 |
| Farrey | -0.52 | 1.02 | -0.76 | 0.09 | 0.27 | -1.59 | 0.17 | -1.37 | 0.19 | -1.12 | -1.58 | 0.13 | -0.73 | -1.87 | -2.33 | 0.54 | -0.51 | -0.68 | 0.79 | 0.14 |
| Garankedey | 0.11 | 0.43 | -0.40 | -0.04 | -0.32 | -1.65 | -0.14 | -1.31 | 1.09 | 0.98 | -1.06 | 0.30 | -0.94 | -1.97 | -2.09 | 0.09 | -0.55 | -0.83 | 0.40 | -0.24 |
| Gaya | 0.21 | 0.56 | -1.02 | -0.06 | -0.66 | -1.50 | -0.55 | -0.66 | 0.20 | -0.49 | -1.80 | 0.80 | -1.68 | -1.79 | -1.96 | 0.39 | -0.31 | -0.03 | 0.29 | -0.07 |
| Golle | -0.48 | 0.53 | -0.73 | -0.04 | 0.18 | -1.57 | -0.16 | -1.42 | 0.09 | -0.22 | -1.81 | -0.04 | -0.16 | -2.06 | -2.02 | 0.14 | -0.39 | -0.94 | 0.48 | -0.18 |
| Gorou Bakassam | 0.29 | 0.81 | -0.45 | 0.02 | 0.18 | -1.47 | -0.01 | -1.64 | 0.58 | 0.13 | -1.37 | 0.33 | -0.38 | -2.35 | -2.30 | 0.10 | -0.51 | -1.09 | 1.07 | -0.15 |
| Guechemé | -0.09 | 1.36 | -0.63 | 0.07 | 0.33 | -1.13 | 0.78 | -1.61 | -0.18 | -0.96 | -1.70 | 0.06 | -0.69 | -2.43 | -2.65 | -0.09 | -0.77 | -1.00 | 0.69 | -0.31 |
| Guilladjé | -0.95 | -0.06 | -0.56 | -0.34 | 0.94 | -1.66 | -0.15 | -1.14 | 0.08 | -0.56 | -1.75 | 0.39 | -0.09 | -1.84 | -2.12 | 0.57 | -0.35 | -0.84 | 0.26 | 0.17 |
| Harikanassou | -0.40 | 0.95 | -0.64 | 0.02 | -0.13 | -1.76 | 0.32 | -1.33 | 1.17 | 0.68 | -1.37 | 0.46 | -1.07 | -1.82 | -1.96 | -0.12 | -0.55 | -1.14 | 0.18 | -0.21 |
| Kankandi | -0.91 | 0.28 | -0.80 | -0.26 | 0.80 | -1.98 | -0.21 | -1.39 | -0.08 | -0.27 | -2.00 | 0.23 | 0.41 | -2.05 | -1.85 | 0.45 | 0.05 | -1.09 | 0.74 | -0.04 |
| Kara Kara | -0.13 | 1.39 | -0.62 | 0.20 | 0.36 | -1.16 | 0.40 | -1.74 | 0.00 | -0.52 | -1.59 | 0.21 | -0.60 | -2.23 | -2.52 | -0.18 | -0.42 | -1.06 | 0.79 | 0.09 |
| Kargui Bangou | -0.13 | 1.39 | -0.62 | 0.20 | 0.36 | -1.16 | 0.40 | -1.74 | 0.00 | -0.52 | -1.59 | 0.21 | -0.60 | -2.23 | -2.52 | -0.18 | -0.42 | -1.06 | 0.79 | 0.09 |
| Kieché | 0.18 | 1.18 | -0.41 | -0.06 | -0.11 | -1.14 | 0.43 | -1.82 | -0.58 | 0.24 | -1.12 | 0.01 | -0.36 | -2.57 | -2.34 | 0.36 | -0.72 | -0.78 | 0.02 | 0.27 |
| Kiota | -0.40 | 0.95 | -0.64 | 0.02 | -0.13 | -1.76 | 0.32 | -1.33 | 1.17 | 0.68 | -1.37 | 0.46 | -1.07 | -1.82 | -1.96 | -0.12 | -0.55 | -1.14 | 0.18 | -0.21 |
| Kore Mairoua | 0.28 | 0.93 | -0.43 | 0.01 | -0.03 | -1.06 | 0.51 | -1.78 | -0.29 | 0.51 | -1.34 | 0.24 | -0.18 | -2.60 | -2.45 | 0.54 | -0.87 | -0.68 | -0.10 | 0.29 |
| Koygolo | 0.14 | 0.85 | -0.40 | 0.50 | -0.39 | -1.44 | -0.02 | -1.49 | 1.18 | 0.29 | -0.65 | 0.49 | -1.38 | -1.78 | -2.01 | -0.22 | -0.34 | -0.68 | -0.42 | -0.59 |
| Loga | 1.14 | 0.47 | -0.21 | -0.04 | -0.66 | -1.32 | 0.25 | -1.61 | 0.68 | 1.03 | -1.05 | 0.32 | -1.43 | -1.64 | -2.38 | -0.14 | -0.72 | -0.89 | 0.03 | 0.14 |
| Matankari | 0.27 | 0.70 | -0.24 | 0.03 | 0.09 | -0.84 | 0.75 | -1.73 | -0.92 | 0.07 | -1.35 | 0.26 | -0.34 | -1.88 | -2.52 | 0.88 | 0.16 | -1.52 | 0.17 | 0.08 |
| Mokko | 0.58 | 0.47 | -0.30 | -0.06 | -0.26 | -1.17 | 0.06 | -1.46 | 1.14 | 0.59 | -1.19 | 0.52 | -0.73 | -2.11 | -2.29 | 0.06 | -0.60 | -0.80 | 0.64 | -0.15 |
| Ngonga | -0.67 | 0.85 | -0.89 | -0.11 | 0.04 | -1.89 | 0.38 | -1.41 | 0.61 | 0.13 | -1.88 | 0.20 | -0.46 | -2.07 | -1.95 | 0.36 | -0.36 | -0.76 | 0.45 | -0.08 |
| Sambera | -0.64 | -0.09 | -0.56 | -0.17 | 0.00 | -1.53 | 0.08 | -0.76 | 0.89 | -0.71 | -1.93 | 0.23 | -1.00 | -1.94 | -2.38 | 0.62 | -0.53 | -0.04 | 0.31 | 0.25 |
| Sokorbe | 0.11 | 0.43 | -0.40 | -0.04 | -0.32 | -1.65 | -0.14 | -1.31 | 1.09 | 0.98 | -1.06 | 0.30 | -0.94 | -1.97 | -2.09 | 0.09 | -0.55 | -0.83 | 0.40 | -0.24 |
| Soucoucoutane | 0.24 | 0.61 | -0.08 | -0.08 | 0.39 | -1.04 | -0.19 | -1.81 | -0.87 | 0.34 | -1.31 | -0.05 | -1.45 | -1.85 | -2.73 | 1.04 | -0.13 | -0.77 | -0.67 | -0.10 |
| Tanda | -0.19 | 0.38 | -0.79 | -0.20 | -0.23 | -1.48 | -0.16 | -0.55 | 0.64 | -1.04 | -1.87 | 0.61 | -1.42 | -1.94 | -2.15 | 0.21 | -0.38 | -0.36 | 0.59 | -0.07 |
| Tessa | -0.23 | 1.03 | -0.73 | 0.20 | 0.35 | -1.34 | 0.20 | -1.62 | 0.22 | -0.39 | -1.56 | 0.38 | -0.33 | -2.19 | -2.17 | 0.10 | -0.59 | -1.20 | 0.96 | -0.10 |
| Tibiri | 0.02 | 1.22 | -0.50 | 0.01 | 0.14 | -1.03 | 0.67 | -1.80 | -0.21 | -0.19 | -1.46 | 0.13 | -0.25 | -2.83 | -2.53 | -0.05 | -0.91 | -0.85 | 0.35 | 0.04 |
| Tombokoarey 1 | 0.56 | 0.69 | -0.38 | -0.07 | 0.17 | -1.16 | 0.33 | -1.61 | 0.36 | 0.47 | -1.40 | 0.52 | -0.45 | -2.19 | -2.50 | 0.41 | -0.74 | -0.67 | 0.29 | -0.02 |
| Tombokoarey2 | 0.56 | 0.69 | -0.38 | -0.07 | 0.17 | -1.16 | 0.33 | -1.61 | 0.36 | 0.47 | -1.40 | 0.52 | -0.45 | -2.19 | -2.50 | 0.41 | -0.74 | -0.67 | 0.29 | -0.02 |
| Tounouga | 0.89 | 1.04 | -1.03 | -0.09 | -0.19 | -1.52 | -0.46 | -0.53 | 0.63 | -1.20 | -1.74 | 1.26 | -1.92 | -1.81 | -1.94 | 0.31 | -0.53 | -0.61 | 0.47 | -0.04 |
| Yelou | -0.19 | 0.38 | -0.79 | -0.20 | -0.23 | -1.48 | -0.16 | -0.55 | 0.64 | -1.04 | -1.87 | 0.61 | -1.42 | -1.94 | -2.15 | 0.21 | -0.38 | -0.36 | 0.59 | -0.07 |
| Zabori | -0.43 | 1.49 | -0.76 | 0.15 | 0.36 | -1.56 | 0.16 | -1.45 | 0.28 | -0.99 | -1.47 | 0.33 | -1.25 | -1.91 | -2.62 | 0.15 | -0.51 | -1.15 | 0.95 | 0.15 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Municipality** | **1986** |  |  |  | **1987** |  |  |  | **1988** |  |  |  | **1989** |  |  |  | **1990** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | -0.82 | 1.01 | -0.71 | 1.04 | -1.03 | 0.48 | -0.71 | -1.65 | 1.75 | -0.71 | 1.02 | 0.35 | 0.98 | -0.61 | -0.53 | 0.94 | -1.02 | 1.14 | -1.31 | -0.30 |
| Bengou | -0.61 | 1.08 | -0.81 | 1.21 | -1.29 | 0.04 | -0.80 | -1.21 | 2.28 | -0.23 | 1.05 | 0.11 | 1.05 | -0.52 | -0.33 | 0.81 | -0.95 | 1.33 | -0.89 | -0.34 |
| Birni Ngaoure | -1.65 | -0.76 | -0.06 | 1.26 | -1.08 | 0.20 | -0.16 | -1.32 | 1.96 | 0.38 | 1.09 | 1.30 | -0.88 | -0.83 | 0.84 | 1.07 | -1.14 | 0.89 | -1.79 | 0.19 |
| Dan Kassari | -0.70 | 1.56 | 0.29 | 1.40 | -1.17 | -1.01 | -0.25 | -0.57 | -0.33 | 1.30 | 0.68 | 0.35 | -0.11 | -0.84 | 0.39 | 0.58 | -0.58 | 2.18 | -1.55 | -0.77 |
| Dioundiou | -0.87 | 0.31 | -0.87 | 1.29 | -0.45 | 0.49 | -0.82 | -1.35 | 0.99 | -0.53 | 0.76 | 0.32 | 0.86 | -0.19 | -0.01 | 0.68 | -1.35 | 1.90 | -1.67 | -0.13 |
| Dogon Kirya | -0.33 | 1.17 | 0.45 | 1.20 | -0.99 | -1.72 | -0.09 | -0.29 | -0.21 | 0.98 | 0.58 | 0.43 | -0.57 | -1.19 | 0.93 | 0.70 | -0.94 | 1.40 | -1.51 | -0.09 |
| Dogondoutchi | -0.90 | -0.10 | 0.50 | 1.05 | -1.09 | -1.37 | -0.32 | -1.18 | 0.39 | 0.54 | 0.84 | 0.29 | -0.20 | -0.91 | -0.15 | 0.38 | -0.92 | 2.21 | -2.07 | -0.59 |
| Dosso | -1.49 | -0.32 | -0.47 | 1.71 | -0.78 | -0.19 | -0.21 | -1.42 | 2.05 | 0.33 | 0.83 | 0.94 | -0.53 | -0.46 | 0.46 | 1.17 | -1.44 | 1.40 | -1.50 | 0.89 |
| Doumega | -0.72 | 0.14 | -0.37 | 1.31 | -1.09 | 0.19 | -0.76 | -0.85 | 0.47 | -1.00 | 0.88 | 1.53 | 0.76 | -0.06 | 0.25 | 0.10 | -0.86 | 2.06 | -1.68 | -0.51 |
| Fabidji | -0.90 | 0.32 | -0.03 | 1.65 | -1.21 | -0.10 | -0.27 | -1.45 | 1.60 | 0.72 | 0.77 | 1.07 | -0.07 | -0.95 | 0.30 | 1.22 | -1.29 | 1.35 | -1.56 | 0.90 |
| Fakara | -1.62 | -0.15 | -0.13 | 1.59 | -1.29 | 0.38 | -0.01 | -1.25 | 2.23 | 0.59 | 0.92 | 1.21 | -1.03 | -0.64 | 0.82 | 1.40 | -0.82 | 0.66 | -1.64 | 0.52 |
| Falmey | -0.64 | 0.75 | -0.12 | 1.16 | -1.09 | -0.41 | 0.06 | -1.37 | 2.04 | 0.47 | 0.59 | 1.66 | 0.39 | -0.99 | -0.04 | 0.85 | -0.59 | 1.19 | -1.47 | 1.26 |
| Falwel | -1.27 | 0.23 | 0.60 | 1.49 | -1.03 | -0.89 | -0.08 | -0.90 | 0.31 | 0.44 | 0.81 | 0.54 | -0.28 | -1.51 | 0.00 | 0.47 | -1.06 | 2.04 | -2.02 | -0.80 |
| Farrey | -1.11 | 0.87 | -1.02 | 0.94 | -0.35 | 0.09 | -0.79 | -1.39 | 1.21 | -0.34 | 0.60 | 0.53 | 0.76 | -0.74 | 0.01 | 1.05 | -1.22 | 1.72 | -1.42 | -0.03 |
| Garankedey | -1.88 | -0.51 | -0.24 | 1.34 | -0.43 | -0.35 | -0.45 | -1.34 | 1.80 | 0.37 | 0.93 | 1.06 | -0.83 | -1.11 | 0.28 | 0.83 | -1.26 | 0.96 | -1.67 | -0.06 |
| Gaya | -0.90 | 0.96 | -0.54 | 0.97 | -1.02 | 0.22 | -0.51 | -1.28 | 2.23 | -0.02 | 1.32 | 0.07 | 0.90 | -0.69 | -0.09 | 0.90 | -0.95 | 0.67 | -1.25 | -0.31 |
| Golle | -0.91 | 0.23 | -0.34 | 1.99 | -0.81 | -0.27 | -0.46 | -1.39 | 1.56 | 0.27 | 0.81 | 1.22 | 0.20 | -1.03 | 0.19 | 1.43 | -1.09 | 1.59 | -1.52 | 0.90 |
| Gorou Bakassam | -1.39 | -0.03 | -0.55 | 1.60 | -0.73 | 0.00 | -0.30 | -1.45 | 1.49 | 0.07 | 0.78 | 0.37 | 0.22 | -0.81 | 0.12 | 1.13 | -1.85 | 1.84 | -1.87 | 0.44 |
| Guechemé | -0.72 | 0.14 | -0.37 | 1.31 | -1.09 | 0.19 | -0.76 | -0.85 | 0.47 | -1.00 | 0.88 | 1.53 | 0.76 | -0.06 | 0.25 | 0.10 | -0.86 | 2.06 | -1.68 | -0.51 |
| Guilladjé | -0.64 | 0.75 | -0.12 | 1.16 | -1.09 | -0.41 | 0.06 | -1.37 | 2.04 | 0.47 | 0.59 | 1.66 | 0.39 | -0.99 | -0.04 | 0.85 | -0.59 | 1.19 | -1.47 | 1.26 |
| Harikanassou | -1.96 | -0.65 | -0.35 | 1.35 | -1.04 | -0.27 | -0.33 | -1.31 | 1.81 | 0.60 | 0.89 | 0.96 | -1.05 | -0.84 | 0.63 | 0.89 | -0.93 | 0.22 | -1.78 | -0.10 |
| Kankandi | -0.90 | 0.32 | -0.03 | 1.65 | -1.21 | -0.10 | -0.27 | -1.45 | 1.60 | 0.72 | 0.77 | 1.07 | -0.07 | -0.95 | 0.30 | 1.22 | -1.29 | 1.35 | -1.56 | 0.90 |
| Kara Kara | -0.72 | 0.22 | -0.83 | 1.34 | -1.00 | 0.73 | -0.63 | -1.35 | 0.68 | -0.56 | 0.65 | 0.62 | 0.52 | -0.57 | 0.13 | 0.57 | -1.29 | 1.75 | -1.72 | 0.10 |
| Kargui Bangou | -0.72 | 0.22 | -0.83 | 1.34 | -1.00 | 0.73 | -0.63 | -1.35 | 0.68 | -0.56 | 0.65 | 0.62 | 0.52 | -0.57 | 0.13 | 0.57 | -1.29 | 1.75 | -1.72 | 0.10 |
| Kieché | -0.73 | -0.15 | -0.02 | 0.92 | -1.00 | -0.40 | -0.52 | -0.85 | 0.16 | 0.41 | 0.90 | 0.74 | 0.11 | -1.11 | -0.25 | 0.17 | -0.84 | 2.70 | -2.51 | -0.20 |
| Kiota | -1.96 | -0.65 | -0.35 | 1.35 | -1.04 | -0.27 | -0.33 | -1.31 | 1.81 | 0.60 | 0.89 | 0.96 | -1.05 | -0.84 | 0.63 | 0.89 | -0.93 | 0.22 | -1.78 | -0.10 |
| Kore Mairoua | -0.94 | -0.64 | -0.27 | 0.92 | -1.01 | -0.19 | -0.43 | -1.05 | 0.30 | -0.20 | 0.83 | 0.53 | -0.02 | -1.02 | -0.32 | 0.17 | -1.23 | 2.26 | -2.34 | -0.45 |
| Koygolo | -1.89 | -0.54 | -0.41 | 1.94 | -0.94 | -1.05 | -0.28 | -1.01 | 1.78 | 0.58 | 0.41 | 0.68 | -1.19 | -0.98 | 0.65 | 0.82 | 0.17 | 0.26 | -1.45 | 0.02 |
| Loga | -1.52 | -0.16 | 0.33 | 1.46 | -0.68 | -0.80 | -0.16 | -1.10 | 0.75 | 0.75 | 1.00 | 0.61 | -0.60 | -1.59 | 0.11 | 0.62 | -0.75 | 1.17 | -1.64 | -0.58 |
| Matankari | -0.71 | 1.00 | 0.56 | 1.13 | -1.10 | -1.43 | -0.14 | -0.71 | 0.01 | 1.11 | 0.58 | 0.56 | -0.36 | -1.28 | 0.48 | 0.60 | -0.82 | 1.61 | -1.64 | -0.31 |
| Mokko | -1.66 | -0.03 | -0.14 | 1.49 | -0.50 | -0.17 | -0.05 | -1.37 | 1.05 | 0.42 | 0.91 | 0.74 | -0.44 | -1.50 | 0.21 | 1.09 | -1.42 | 1.55 | -1.77 | -0.01 |
| Ngonga | -1.65 | -0.76 | -0.06 | 1.26 | -1.08 | 0.20 | -0.16 | -1.32 | 1.96 | 0.38 | 1.09 | 1.30 | -0.88 | -0.83 | 0.84 | 1.07 | -1.14 | 0.89 | -1.79 | 0.19 |
| Sambera | -1.12 | 1.26 | -0.86 | 0.62 | -0.87 | 0.21 | -0.77 | -1.43 | 2.04 | -0.68 | 1.58 | 1.86 | 1.04 | -0.94 | 0.09 | 0.74 | -0.58 | 0.92 | -1.43 | -0.21 |
| Sokorbe | -1.88 | -0.51 | -0.24 | 1.34 | -0.43 | -0.35 | -0.45 | -1.34 | 1.80 | 0.37 | 0.93 | 1.06 | -0.83 | -1.11 | 0.28 | 0.83 | -1.26 | 0.96 | -1.67 | -0.06 |
| Soucoucoutane | -0.61 | 0.98 | 0.06 | 1.27 | -1.12 | -1.75 | -0.27 | -0.21 | 0.10 | 0.49 | 0.36 | 0.57 | -0.61 | -1.42 | 0.81 | 0.29 | -0.64 | 0.74 | -1.19 | -0.23 |
| Tanda | -1.14 | 1.07 | -0.72 | 0.69 | -0.70 | 0.78 | -0.82 | -1.34 | 1.97 | -0.41 | 1.75 | 0.45 | 0.91 | -0.77 | -0.13 | 1.09 | -0.90 | 1.14 | -1.42 | -0.32 |
| Tessa | -1.03 | -0.15 | -0.67 | 1.71 | -0.61 | 0.19 | -0.58 | -1.48 | 0.90 | -0.37 | 0.49 | 0.46 | 0.58 | -0.87 | -0.17 | 1.27 | -1.39 | 1.70 | -1.58 | 0.36 |
| Tibiri | -0.94 | -0.28 | -0.53 | 1.06 | -1.05 | 0.29 | -0.68 | -0.99 | 0.47 | -0.85 | 0.62 | 0.80 | 0.34 | -0.58 | 0.22 | 0.21 | -1.14 | 1.89 | -2.30 | -0.27 |
| Tombokoarey 1 | -1.29 | -0.32 | -0.32 | 1.29 | -0.99 | 0.07 | -0.10 | -1.04 | 0.57 | -0.16 | 0.81 | 0.39 | 0.11 | -1.37 | -0.07 | 0.46 | -1.48 | 2.13 | -2.11 | -0.25 |
| Tombokoarey2 | -1.29 | -0.32 | -0.32 | 1.29 | -0.99 | 0.07 | -0.10 | -1.04 | 0.57 | -0.16 | 0.81 | 0.39 | 0.11 | -1.37 | -0.07 | 0.46 | -1.48 | 2.13 | -2.11 | -0.25 |
| Tounouga | -0.61 | 1.08 | -0.81 | 1.21 | -1.29 | 0.04 | -0.80 | -1.21 | 2.28 | -0.23 | 1.05 | 0.11 | 1.05 | -0.52 | -0.33 | 0.81 | -0.95 | 1.33 | -0.89 | -0.34 |
| Yelou | -1.14 | 1.07 | -0.72 | 0.69 | -0.70 | 0.78 | -0.82 | -1.34 | 1.97 | -0.41 | 1.75 | 0.45 | 0.91 | -0.77 | -0.13 | 1.09 | -0.90 | 1.14 | -1.42 | -0.32 |
| Zabori | -0.87 | 0.31 | -0.87 | 1.29 | -0.45 | 0.49 | -0.82 | -1.35 | 0.99 | -0.53 | 0.76 | 0.32 | 0.86 | -0.19 | -0.01 | 0.68 | -1.35 | 1.90 | -1.67 | -0.13 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Municipality** | **1991** |  |  |  | **1992** |  |  |  | **1993** |  |  |  | **1994** |  |  |  | **1995** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | 0.12 | -0.56 | -0.54 | -2.37 | -0.57 | 0.95 | 1.15 | -1.42 | -0.03 | -0.12 | 0.02 | -0.87 | 2.01 | -0.03 | 2.03 | 1.47 | -0.70 | -0.36 | 0.89 | -0.77 |
| Bengou | 0.12 | -0.32 | -0.48 | -2.35 | -0.63 | 0.81 | 1.03 | -1.04 | 0.04 | -0.03 | -0.57 | -0.97 | 1.26 | -0.30 | 2.06 | 1.72 | -0.55 | -0.64 | 1.16 | -0.99 |
| Birni Ngaoure | 1.01 | 0.06 | 0.47 | -1.78 | 0.13 | -0.42 | 1.36 | -0.87 | -0.04 | -0.48 | -0.54 | -0.95 | 0.74 | 0.71 | 2.51 | -0.09 | -0.64 | -1.02 | 0.66 | -0.38 |
| Dan Kassari | 0.24 | -0.54 | 1.30 | -1.57 | -0.83 | 0.40 | 0.97 | -0.78 | 0.31 | -0.84 | -0.36 | -1.09 | 0.62 | 1.12 | 1.66 | 0.84 | -0.68 | -0.75 | 0.24 | -1.24 |
| Dioundiou | 1.41 | -0.88 | 1.02 | -2.02 | 0.52 | 0.76 | 1.65 | -1.21 | 0.08 | -0.33 | -0.38 | -0.41 | 2.33 | 0.18 | 2.15 | 1.54 | -0.81 | -0.14 | 0.08 | -0.24 |
| Dogon Kirya | 0.20 | -0.58 | 1.58 | -1.65 | -0.83 | -0.67 | 0.87 | -0.95 | -0.14 | -0.80 | -1.02 | -1.12 | 0.98 | 1.30 | 1.98 | 1.68 | -0.76 | -0.94 | 0.92 | -0.68 |
| Dogondoutchi | 0.86 | 0.23 | 1.32 | -1.99 | 0.02 | -0.50 | 1.04 | -0.11 | -0.14 | -0.98 | -0.68 | -0.28 | 0.46 | 0.99 | 1.44 | 1.15 | -1.08 | -0.31 | 0.43 | -1.10 |
| Dosso | 1.48 | -0.21 | 0.38 | -2.05 | -0.07 | -0.32 | 1.92 | -0.74 | 0.26 | -0.74 | -0.79 | -0.67 | 1.00 | 0.88 | 2.88 | 0.11 | -1.00 | -0.80 | 0.49 | -0.47 |
| Doumega | 1.78 | -1.00 | 1.37 | -1.94 | 0.55 | 0.70 | 0.92 | -1.03 | -0.27 | -0.08 | -0.60 | -0.35 | 2.16 | 0.41 | 2.03 | 1.21 | -1.23 | 0.58 | -0.09 | -0.33 |
| Fabidji | 1.85 | -0.87 | 0.45 | -2.01 | -0.03 | -0.24 | 1.64 | -0.83 | 0.36 | -0.13 | -0.82 | -1.06 | 0.90 | 0.86 | 2.93 | 0.43 | -1.02 | -0.75 | 0.56 | -0.20 |
| Fakara | 1.02 | -0.87 | 0.86 | -1.72 | 0.41 | -0.54 | 1.21 | -0.94 | 0.09 | -0.35 | 0.14 | -1.10 | 0.80 | 0.47 | 2.59 | 0.04 | -0.64 | -0.54 | 0.69 | -0.26 |
| Falmey | 1.63 | -0.84 | 0.13 | -2.19 | -0.36 | -0.16 | 1.57 | -1.10 | 0.84 | 0.22 | -0.83 | -1.33 | 1.10 | 0.31 | 3.18 | 1.50 | -1.48 | -0.51 | 0.63 | -0.41 |
| Falwel | 0.26 | 0.22 | 1.52 | -2.07 | 0.38 | -0.39 | 1.13 | 0.07 | 0.40 | -0.78 | -0.45 | -0.44 | -0.13 | 1.36 | 1.22 | 1.35 | -0.44 | 0.02 | 0.43 | -0.84 |
| Farrey | 1.48 | -1.15 | 1.00 | -2.28 | 0.38 | 0.41 | 2.19 | -1.44 | 0.54 | -0.44 | -0.36 | -0.40 | 2.45 | 0.28 | 2.25 | 1.33 | -1.01 | -0.57 | -0.14 | -0.62 |
| Garankedey | 0.51 | 0.08 | 0.22 | -2.01 | -0.09 | -0.25 | 1.93 | -0.04 | 0.43 | -0.89 | -0.40 | -0.55 | 0.35 | 0.68 | 2.63 | 0.46 | 0.07 | -0.50 | 0.79 | -0.25 |
| Gaya | 0.16 | -0.22 | -0.22 | -2.33 | -0.61 | 0.70 | 0.43 | -1.56 | 0.23 | 0.17 | -0.30 | -0.84 | 1.20 | -0.42 | 2.19 | 2.12 | -0.46 | -1.00 | 1.06 | -1.39 |
| Golle | 2.11 | -0.70 | 0.43 | -2.19 | -0.19 | -0.12 | 1.63 | -1.13 | 0.49 | -0.56 | -0.60 | -0.57 | 1.72 | 0.58 | 3.10 | 0.89 | -1.16 | -0.72 | 0.34 | -0.21 |
| Gorou Bakassam | 1.52 | -0.38 | 0.59 | -2.30 | 0.33 | -0.11 | 2.06 | -1.02 | 0.46 | -0.57 | -0.56 | -0.33 | 1.82 | 0.74 | 2.38 | 0.96 | -1.04 | -0.41 | 0.27 | -0.22 |
| Guechemé | 1.78 | -1.00 | 1.37 | -1.94 | 0.55 | 0.70 | 0.92 | -1.03 | -0.27 | -0.08 | -0.60 | -0.35 | 2.16 | 0.41 | 2.03 | 1.21 | -1.23 | 0.58 | -0.09 | -0.33 |
| Guilladjé | 1.63 | -0.84 | 0.13 | -2.19 | -0.36 | -0.16 | 1.57 | -1.10 | 0.84 | 0.22 | -0.83 | -1.33 | 1.10 | 0.31 | 3.18 | 1.50 | -1.48 | -0.51 | 0.63 | -0.41 |
| Harikanassou | 0.44 | -0.36 | 0.35 | -1.88 | 0.12 | -0.29 | 1.22 | -0.49 | 0.26 | -0.45 | -0.35 | -0.53 | 0.57 | 0.48 | 2.72 | 0.06 | -0.02 | -0.69 | 0.81 | -0.36 |
| Kankandi | 1.85 | -0.87 | 0.45 | -2.01 | -0.03 | -0.24 | 1.64 | -0.83 | 0.36 | -0.13 | -0.82 | -1.06 | 0.90 | 0.86 | 2.93 | 0.43 | -1.02 | -0.75 | 0.56 | -0.20 |
| Kara Kara | 1.51 | -1.20 | 1.24 | -2.12 | 0.35 | 0.54 | 1.58 | -1.15 | 0.28 | -0.43 | -0.52 | -0.41 | 2.71 | 0.51 | 2.50 | 0.97 | -0.90 | -0.03 | 0.07 | -0.14 |
| Kargui Bangou | 1.51 | -1.20 | 1.24 | -2.12 | 0.35 | 0.54 | 1.58 | -1.15 | 0.28 | -0.43 | -0.52 | -0.41 | 2.71 | 0.51 | 2.50 | 0.97 | -0.90 | -0.03 | 0.07 | -0.14 |
| Kieché | 0.99 | -0.57 | 1.39 | -1.99 | 0.19 | -0.04 | 0.87 | -0.24 | -0.35 | 0.30 | -0.39 | -0.88 | 1.49 | 0.61 | 1.64 | 1.44 | -1.19 | -0.51 | 0.49 | -0.92 |
| Kiota | 0.44 | -0.36 | 0.35 | -1.88 | 0.12 | -0.29 | 1.22 | -0.49 | 0.26 | -0.45 | -0.35 | -0.53 | 0.57 | 0.48 | 2.72 | 0.06 | -0.02 | -0.69 | 0.81 | -0.36 |
| Kore Mairoua | 1.23 | -0.66 | 1.00 | -2.10 | 0.46 | -0.31 | 1.36 | -0.17 | -0.27 | -0.38 | -0.55 | -0.56 | 1.19 | 0.83 | 1.61 | 1.34 | -1.17 | -0.11 | 0.49 | -0.92 |
| Koygolo | 0.41 | -0.90 | 0.07 | -1.92 | -0.13 | -0.52 | 1.37 | -0.43 | 0.29 | -0.51 | 0.15 | -0.07 | -0.03 | 0.98 | 2.36 | 1.09 | 0.38 | -0.49 | 1.40 | -0.34 |
| Loga | 0.10 | -0.36 | 0.73 | -1.95 | 0.15 | 0.30 | 1.91 | 0.16 | 0.65 | -0.91 | -0.26 | 0.09 | -0.22 | 0.87 | 1.82 | 1.65 | 0.00 | -0.02 | 0.92 | -0.67 |
| Matankari | 0.44 | -0.55 | 1.93 | -1.64 | -0.41 | -0.26 | 0.86 | -0.89 | -0.04 | -0.58 | -0.54 | -1.15 | 0.83 | 1.58 | 1.07 | 1.27 | -1.14 | -0.39 | 0.50 | -0.97 |
| Mokko | 0.37 | -0.32 | 0.24 | -2.10 | 0.28 | 0.00 | 2.04 | -0.26 | 0.76 | -0.98 | -0.16 | -0.14 | 0.56 | 1.11 | 2.27 | 1.10 | -0.65 | -0.46 | 0.65 | -0.46 |
| Ngonga | 1.01 | 0.06 | 0.47 | -1.78 | 0.13 | -0.42 | 1.36 | -0.87 | -0.04 | -0.48 | -0.54 | -0.95 | 0.74 | 0.71 | 2.51 | -0.09 | -0.64 | -1.02 | 0.66 | -0.38 |
| Sambera | 0.76 | -1.01 | -0.11 | -2.25 | -0.08 | 0.28 | 1.25 | -1.24 | 0.81 | 0.05 | -0.36 | -1.06 | 1.67 | -0.12 | 2.56 | 1.70 | -1.16 | -0.81 | 0.26 | -0.89 |
| Sokorbe | 0.51 | 0.08 | 0.22 | -2.01 | -0.09 | -0.25 | 1.93 | -0.04 | 0.43 | -0.89 | -0.40 | -0.55 | 0.35 | 0.68 | 2.63 | 0.46 | 0.07 | -0.50 | 0.79 | -0.25 |
| Soucoucoutane | 0.34 | -0.88 | 1.67 | -1.70 | -0.26 | -0.93 | 0.79 | -0.89 | -0.37 | -0.77 | -0.49 | -1.00 | 0.17 | 1.57 | 2.44 | 2.28 | -0.74 | -0.27 | 0.95 | -0.67 |
| Tanda | 0.21 | -0.54 | -0.24 | -2.22 | -0.58 | 0.82 | 1.00 | -1.42 | 0.41 | -0.02 | -0.45 | -1.04 | 1.81 | -0.55 | 2.02 | 2.36 | -0.64 | -0.45 | 0.88 | -1.20 |
| Tessa | 1.86 | -0.62 | 0.76 | -2.32 | 0.17 | 0.26 | 1.98 | -1.46 | 0.54 | -0.35 | -0.51 | -0.47 | 2.40 | 0.90 | 2.89 | 0.84 | -0.87 | -0.41 | 0.10 | -0.05 |
| Tibiri | 1.35 | -1.04 | 1.25 | -2.16 | 0.39 | 0.36 | 1.16 | -0.43 | -0.23 | 0.03 | -0.54 | -0.41 | 1.78 | 0.66 | 1.86 | 1.63 | -1.33 | 0.35 | 0.28 | -0.82 |
| Tombokoarey 1 | 1.05 | -0.20 | 0.72 | -2.12 | 0.26 | -0.24 | 1.51 | -0.15 | 0.21 | -0.96 | 0.01 | -0.58 | 0.78 | 1.09 | 2.01 | 1.55 | -1.34 | -0.25 | 0.45 | -0.70 |
| Tombokoarey2 | 1.05 | -0.20 | 0.72 | -2.12 | 0.26 | -0.24 | 1.51 | -0.15 | 0.21 | -0.96 | 0.01 | -0.58 | 0.78 | 1.09 | 2.01 | 1.55 | -1.34 | -0.25 | 0.45 | -0.70 |
| Tounouga | 0.12 | -0.32 | -0.48 | -2.35 | -0.63 | 0.81 | 1.03 | -1.04 | 0.04 | -0.03 | -0.57 | -0.97 | 1.26 | -0.30 | 2.06 | 1.72 | -0.55 | -0.64 | 1.16 | -0.99 |
| Yelou | 0.21 | -0.54 | -0.24 | -2.22 | -0.58 | 0.82 | 1.00 | -1.42 | 0.41 | -0.02 | -0.45 | -1.04 | 1.81 | -0.55 | 2.02 | 2.36 | -0.64 | -0.45 | 0.88 | -1.20 |
| Zabori | 1.41 | -0.88 | 1.02 | -2.02 | 0.52 | 0.76 | 1.65 | -1.21 | 0.08 | -0.33 | -0.38 | -0.41 | 2.33 | 0.18 | 2.15 | 1.54 | -0.81 | -0.14 | 0.08 | -0.24 |

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| **Municipality** | **1996** |  |  |  | **1997** |  |  |  | **1998** |  |  |  | **1999** |  |  |  | **2000** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | 1.00 | -1.49 | 0.61 | 0.35 | 0.66 | -1.24 | -1.10 | -0.38 | 1.09 | -0.18 | 0.12 | 0.83 | -2.31 | 1.01 | 0.94 | 2.41 | 0.01 | 0.06 | -0.27 | -0.76 |
| Bengou | 0.48 | -1.38 | 0.30 | 0.32 | 0.78 | -1.41 | -1.02 | -0.24 | 0.78 | 0.00 | -0.05 | 0.91 | -2.36 | 0.48 | 0.67 | 2.43 | 0.05 | 0.05 | -0.24 | -0.75 |
| Birni Ngaoure | 0.33 | -1.52 | 1.22 | -0.99 | 0.49 | -0.75 | -1.18 | -0.04 | 1.43 | 0.16 | 0.47 | 1.63 | -1.75 | 0.96 | 0.27 | 2.46 | -0.57 | 2.21 | -0.48 | -1.36 |
| Dan Kassari | 2.36 | -1.28 | -0.32 | -1.04 | 0.63 | -0.71 | -1.11 | -1.00 | -0.18 | -0.11 | 0.11 | 1.34 | -1.34 | 1.20 | 2.20 | 1.10 | -0.09 | 0.80 | -0.48 | -1.31 |
| Dioundiou | 1.86 | -1.41 | 0.79 | -0.25 | 0.26 | -1.01 | -0.68 | -0.65 | 1.10 | -0.19 | -0.34 | 1.32 | -2.05 | 1.50 | 1.14 | 2.46 | -0.21 | 1.10 | -0.29 | -0.73 |
| Dogon Kirya | 2.11 | -1.06 | -0.36 | -0.57 | 1.02 | -0.24 | -1.09 | -1.28 | 0.38 | 0.09 | -0.28 | 2.10 | -1.44 | 1.58 | 1.64 | 0.18 | 0.04 | 0.58 | -0.18 | -1.49 |
| Dogondoutchi | 1.69 | -1.56 | 0.43 | -1.07 | 1.71 | 0.12 | -0.78 | -0.37 | 0.01 | -0.61 | 0.06 | 1.80 | -2.00 | 0.82 | 2.11 | 1.45 | 0.22 | 1.68 | -0.81 | -0.96 |
| Dosso | 0.39 | -1.51 | 0.71 | -0.80 | 0.36 | -0.92 | -1.05 | 0.05 | 1.17 | -0.25 | 0.47 | 0.94 | -1.89 | 0.89 | 0.33 | 2.37 | -0.60 | 2.26 | -0.58 | -1.36 |
| Doumega | 1.96 | -1.43 | 0.56 | -0.41 | 0.35 | -0.47 | -0.74 | -0.52 | 1.26 | -0.14 | -0.69 | 1.36 | -1.82 | 0.91 | 1.54 | 1.94 | -0.32 | 1.26 | 0.02 | -0.52 |
| Fabidji | 0.47 | -1.60 | 0.46 | -0.93 | 0.11 | -0.57 | -0.95 | -0.13 | 0.86 | -0.15 | 0.12 | 0.68 | -1.94 | 1.49 | 0.13 | 2.29 | -0.63 | 1.98 | -0.65 | -1.13 |
| Fakara | 0.08 | -1.55 | 1.19 | -0.83 | 0.87 | -0.57 | -1.40 | -0.05 | 1.14 | 0.31 | 0.78 | 2.20 | -1.17 | 0.68 | 0.28 | 2.25 | -0.47 | 1.90 | -0.44 | -1.22 |
| Falmey | 1.19 | -1.93 | 0.23 | -0.66 | -0.03 | -1.02 | -1.25 | -0.10 | 0.34 | 0.17 | 0.23 | 0.33 | -1.90 | 2.29 | 0.00 | 1.51 | -0.59 | 1.31 | -0.33 | -1.01 |
| Falwel | 1.73 | -1.77 | 0.64 | -1.11 | 2.03 | -0.11 | -1.06 | -0.22 | 0.37 | -0.40 | 0.06 | 1.53 | -1.97 | 0.56 | 1.53 | 1.92 | 0.17 | 1.72 | -0.92 | -1.07 |
| Farrey | 1.26 | -1.51 | 0.92 | -0.23 | 0.46 | -1.03 | -0.83 | -0.65 | 1.31 | 0.12 | -0.19 | 0.67 | -1.96 | 1.28 | 0.63 | 2.55 | -0.47 | 1.20 | -0.42 | -0.79 |
| Garankedey | 0.50 | -1.23 | 1.27 | -0.94 | 0.67 | -0.52 | -1.13 | 0.11 | 0.63 | 0.29 | 0.20 | 1.64 | -1.91 | 0.51 | 0.26 | 2.54 | -0.62 | 2.61 | -0.76 | -1.46 |
| Gaya | 0.70 | -1.75 | 0.25 | -0.03 | 0.90 | -1.54 | -1.32 | -0.33 | 0.99 | -0.11 | 0.45 | 1.18 | -2.56 | 0.65 | 0.41 | 1.97 | 0.25 | -0.02 | -0.13 | -0.57 |
| Golle | 0.68 | -1.64 | 0.25 | -0.69 | 0.38 | -0.88 | -0.96 | -0.40 | 1.08 | -0.26 | 0.26 | 0.17 | -1.73 | 1.56 | 0.24 | 1.76 | -0.71 | 2.18 | -0.52 | -1.20 |
| Gorou Bakassam | 0.81 | -1.77 | 0.82 | -0.70 | 0.64 | -0.80 | -1.03 | -0.27 | 0.86 | -0.40 | 0.06 | 0.96 | -1.97 | 0.77 | 0.63 | 2.37 | -0.67 | 2.14 | -0.46 | -1.17 |
| Guechemé | 1.96 | -1.43 | 0.56 | -0.41 | 0.35 | -0.47 | -0.74 | -0.52 | 1.26 | -0.14 | -0.69 | 1.36 | -1.82 | 0.91 | 1.54 | 1.94 | -0.32 | 1.26 | 0.02 | -0.52 |
| Guilladjé | 1.19 | -1.93 | 0.23 | -0.66 | -0.03 | -1.02 | -1.25 | -0.10 | 0.34 | 0.17 | 0.23 | 0.33 | -1.90 | 2.29 | 0.00 | 1.51 | -0.59 | 1.31 | -0.33 | -1.01 |
| Harikanassou | 0.40 | -1.36 | 1.64 | -0.92 | 0.45 | -0.21 | -1.32 | 0.30 | 0.92 | 0.24 | 0.33 | 2.09 | -1.83 | 1.07 | 0.30 | 2.59 | -0.63 | 2.38 | -0.57 | -1.43 |
| Kankandi | 0.47 | -1.60 | 0.46 | -0.93 | 0.11 | -0.57 | -0.95 | -0.13 | 0.86 | -0.15 | 0.12 | 0.68 | -1.94 | 1.49 | 0.13 | 2.29 | -0.63 | 1.98 | -0.65 | -1.13 |
| Kara Kara | 1.68 | -1.65 | 0.78 | -0.35 | 0.42 | -0.70 | -0.61 | -0.51 | 1.11 | -0.37 | -0.51 | 1.58 | -1.89 | 1.23 | 0.90 | 2.33 | -0.42 | 1.48 | -0.10 | -0.57 |
| Kargui Bangou | 1.68 | -1.65 | 0.78 | -0.35 | 0.42 | -0.70 | -0.61 | -0.51 | 1.11 | -0.37 | -0.51 | 1.58 | -1.89 | 1.23 | 0.90 | 2.33 | -0.42 | 1.48 | -0.10 | -0.57 |
| Kieché | 2.63 | -1.84 | 0.58 | -0.49 | 1.08 | 0.50 | -0.93 | -0.80 | 0.02 | -0.69 | -0.34 | 1.87 | -1.90 | 0.33 | 1.84 | 1.16 | 0.01 | 1.62 | -0.52 | -0.86 |
| Kiota | 0.40 | -1.36 | 1.64 | -0.92 | 0.45 | -0.21 | -1.32 | 0.30 | 0.92 | 0.24 | 0.33 | 2.09 | -1.83 | 1.07 | 0.30 | 2.59 | -0.63 | 2.38 | -0.57 | -1.43 |
| Kore Mairoua | 1.93 | -1.83 | 0.61 | -0.89 | 1.64 | 0.38 | -0.82 | -0.53 | 0.08 | -0.31 | -0.23 | 1.92 | -2.16 | 0.82 | 2.01 | 1.61 | 0.13 | 1.98 | -0.48 | -0.71 |
| Koygolo | -0.13 | -0.88 | 1.79 | -0.99 | 0.46 | 0.15 | -1.75 | -0.66 | 0.34 | 0.69 | 0.10 | 1.19 | -1.87 | 0.98 | 0.88 | 2.37 | -1.03 | 2.24 | -0.96 | -1.40 |
| Loga | 1.27 | -1.32 | 1.00 | -1.24 | 2.01 | -0.21 | -1.42 | -0.33 | 0.47 | 0.29 | -0.02 | 1.34 | -1.92 | 0.36 | 1.11 | 2.02 | -0.27 | 2.17 | -0.94 | -1.34 |
| Matankari | 2.07 | -1.30 | 0.04 | -0.96 | 1.20 | -0.19 | -0.98 | -0.96 | 0.02 | -0.30 | 0.16 | 1.90 | -1.63 | 0.89 | 2.00 | 0.81 | -0.07 | 1.29 | -0.61 | -1.43 |
| Mokko | 0.82 | -1.36 | 1.06 | -1.01 | 1.17 | -0.69 | -1.09 | -0.15 | 0.60 | -0.07 | -0.34 | 1.16 | -2.20 | 0.05 | 0.74 | 2.32 | -0.56 | 2.29 | -0.88 | -1.37 |
| Ngonga | 0.33 | -1.52 | 1.22 | -0.99 | 0.49 | -0.75 | -1.18 | -0.04 | 1.43 | 0.16 | 0.47 | 1.63 | -1.75 | 0.96 | 0.27 | 2.46 | -0.57 | 2.21 | -0.48 | -1.36 |
| Sambera | 0.77 | -1.59 | 0.54 | -0.16 | 0.71 | -1.18 | -1.17 | -0.21 | 0.45 | 0.78 | 0.26 | 0.40 | -2.48 | 1.47 | 0.43 | 2.21 | -0.31 | 0.76 | -0.25 | -0.95 |
| Sokorbe | 0.50 | -1.23 | 1.27 | -0.94 | 0.67 | -0.52 | -1.13 | 0.11 | 0.63 | 0.29 | 0.20 | 1.64 | -1.91 | 0.51 | 0.26 | 2.54 | -0.62 | 2.61 | -0.76 | -1.46 |
| Soucoucoutane | 1.99 | -1.14 | -0.25 | -0.71 | 1.81 | -0.46 | -0.87 | -1.16 | 0.43 | 0.28 | -0.04 | 1.41 | -1.60 | 1.60 | 1.46 | 0.16 | -0.27 | 1.04 | -0.44 | -1.53 |
| Tanda | 0.82 | -1.50 | 0.46 | -0.20 | 0.78 | -1.41 | -1.20 | -0.14 | 1.25 | 0.12 | 0.43 | 0.71 | -2.52 | 0.91 | 0.61 | 2.27 | 0.10 | 0.21 | -0.27 | -0.84 |
| Tessa | 1.32 | -1.72 | 0.50 | -0.41 | 0.55 | -0.75 | -0.78 | -0.52 | 0.94 | -0.34 | -0.19 | 0.57 | -1.83 | 1.24 | 0.43 | 2.26 | -0.69 | 1.64 | -0.33 | -0.88 |
| Tibiri | 2.24 | -1.70 | 0.72 | -0.72 | 1.06 | 0.01 | -0.65 | -0.71 | 0.62 | -0.18 | -0.65 | 1.73 | -2.07 | 1.16 | 1.66 | 1.58 | -0.09 | 1.86 | -0.33 | -0.43 |
| Tombokoarey 1 | 1.40 | -1.61 | 0.76 | -1.05 | 1.50 | -0.14 | -0.88 | -0.53 | 0.22 | -0.44 | -0.16 | 1.51 | -2.22 | 0.62 | 1.72 | 2.07 | -0.16 | 2.10 | -0.69 | -0.91 |
| Tombokoarey2 | 1.40 | -1.61 | 0.76 | -1.05 | 1.50 | -0.14 | -0.88 | -0.53 | 0.22 | -0.44 | -0.16 | 1.51 | -2.22 | 0.62 | 1.72 | 2.07 | -0.16 | 2.10 | -0.69 | -0.91 |
| Tounouga | 0.48 | -1.38 | 0.30 | 0.32 | 0.78 | -1.41 | -1.02 | -0.24 | 0.78 | 0.00 | -0.05 | 0.91 | -2.36 | 0.48 | 0.67 | 2.43 | 0.05 | 0.05 | -0.24 | -0.75 |
| Yelou | 0.82 | -1.50 | 0.46 | -0.20 | 0.78 | -1.41 | -1.20 | -0.14 | 1.25 | 0.12 | 0.43 | 0.71 | -2.52 | 0.91 | 0.61 | 2.27 | 0.10 | 0.21 | -0.27 | -0.84 |
| Zabori | 1.86 | -1.41 | 0.79 | -0.25 | 0.26 | -1.01 | -0.68 | -0.65 | 1.10 | -0.19 | -0.34 | 1.32 | -2.05 | 1.50 | 1.14 | 2.46 | -0.21 | 1.10 | -0.29 | -0.73 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Municipality** | **2001** |  |  |  | **2002** |  |  |  | **2003** |  |  |  | **2004** |  |  |  | **2005** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | 0.33 | 1.67 | 0.66 | -0.71 | 0.19 | 1.46 | -0.32 | 0.98 | -0.33 | 0.65 | 1.50 | 0.87 | -0.39 | -0.15 | -0.69 | -0.32 | 0.09 | 0.96 | -0.34 | 1.07 |
| Bengou | 0.75 | 1.52 | 0.76 | -0.85 | 0.26 | 1.68 | -0.37 | 0.40 | -0.24 | 1.29 | 1.61 | 0.73 | -0.19 | -0.16 | -0.86 | -0.19 | 0.30 | 1.18 | -0.52 | 1.03 |
| Birni Ngaoure | 1.33 | 1.89 | -1.09 | -0.50 | 0.39 | -0.07 | -0.47 | 1.71 | 0.44 | -0.23 | -0.30 | 0.85 | -0.38 | 0.16 | -0.62 | -0.44 | 1.00 | 0.70 | -0.07 | 0.37 |
| Dan Kassari | -0.69 | 0.26 | -0.90 | 0.37 | -0.74 | 0.12 | -1.02 | 0.85 | 1.95 | -1.18 | 0.20 | 0.66 | -0.93 | 0.45 | 0.62 | -0.56 | 1.77 | 0.96 | -0.41 | -0.27 |
| Dioundiou | -0.88 | 0.63 | 0.21 | -0.72 | -0.20 | 1.41 | -0.65 | 1.27 | -0.10 | 0.66 | 0.87 | 1.22 | -1.03 | -0.11 | -0.10 | -0.71 | 0.53 | 0.38 | -0.23 | 0.89 |
| Dogon Kirya | -0.38 | 0.66 | -0.46 | 0.06 | -0.59 | -0.26 | -1.04 | 0.92 | 1.93 | -0.90 | 0.40 | 0.56 | -1.06 | 0.67 | 0.56 | -0.67 | 1.32 | 0.95 | -0.24 | -0.41 |
| Dogondoutchi | -0.77 | 1.05 | -0.69 | -0.41 | -0.06 | -0.38 | -0.77 | 2.01 | 2.21 | -0.92 | -0.15 | 0.80 | -1.13 | -0.07 | 0.52 | -0.34 | 1.29 | 0.60 | -0.05 | -0.24 |
| Dosso | 1.30 | 1.71 | -0.98 | -0.60 | 0.43 | 0.27 | -0.55 | 1.75 | 0.49 | 0.06 | -0.15 | 0.90 | -0.61 | 0.03 | -0.37 | -0.59 | 0.82 | 0.51 | -0.19 | 0.18 |
| Doumega | -0.95 | 0.38 | 0.34 | -0.71 | -0.35 | 1.23 | -0.48 | 1.25 | 0.17 | 0.78 | 0.66 | 1.36 | -1.30 | 0.07 | -0.13 | -0.95 | 0.76 | 0.54 | -0.39 | 0.15 |
| Fabidji | 1.09 | 1.52 | -0.76 | -0.64 | 0.90 | 0.17 | -0.46 | 1.65 | 0.50 | 0.34 | 0.35 | 0.66 | -0.92 | 0.44 | -0.36 | -0.46 | 0.63 | 0.56 | -0.02 | 0.82 |
| Fakara | 0.74 | 1.60 | -1.03 | -0.49 | 0.27 | -0.24 | -0.29 | 0.94 | 0.36 | -0.78 | -0.25 | 0.31 | -0.49 | 0.33 | -0.81 | -0.47 | 1.23 | 1.02 | 0.01 | 0.40 |
| Falmey | 0.05 | 1.70 | -0.39 | -0.87 | 0.90 | 0.60 | -0.33 | 1.60 | 0.58 | 0.50 | 1.12 | 0.85 | -1.33 | 0.55 | -0.33 | -0.31 | 0.56 | 0.47 | -0.29 | 0.84 |
| Falwel | -0.22 | 1.51 | -0.94 | -0.47 | -0.18 | -0.41 | -0.92 | 1.90 | 1.93 | -0.73 | -0.09 | 0.72 | -1.23 | -0.34 | 0.51 | -0.42 | 0.97 | 0.45 | -0.24 | -0.30 |
| Farrey | -0.70 | 0.91 | -0.13 | -0.81 | -0.16 | 1.29 | -0.71 | 1.58 | -0.10 | 0.62 | 0.87 | 0.97 | -1.37 | -0.02 | -0.19 | -0.44 | 0.44 | 0.43 | -0.20 | 1.02 |
| Garankedey | 1.31 | 2.00 | -1.34 | -0.34 | 0.16 | -0.36 | -0.68 | 1.82 | 1.53 | -0.67 | -0.51 | 0.82 | -0.80 | -0.01 | -0.17 | -0.40 | 0.87 | 0.47 | -0.24 | -0.16 |
| Gaya | 0.68 | 1.85 | 0.53 | -0.90 | 0.02 | 1.61 | -0.37 | 0.69 | -0.21 | 1.55 | 1.99 | 0.73 | -0.42 | -0.47 | -0.73 | 0.14 | 0.71 | 1.16 | -0.47 | 1.08 |
| Golle | 0.88 | 1.16 | -0.62 | -0.69 | 0.55 | 0.89 | -0.61 | 1.59 | 0.26 | 0.66 | 0.59 | 0.85 | -1.31 | 0.18 | -0.16 | -0.50 | 0.41 | 0.47 | -0.12 | 0.70 |
| Gorou Bakassam | 0.45 | 1.35 | -0.71 | -0.62 | 0.35 | 0.50 | -0.62 | 1.78 | 0.50 | 0.28 | -0.07 | 0.90 | -1.26 | -0.17 | -0.04 | -0.32 | 0.81 | 0.61 | -0.41 | 0.05 |
| Guechemé | -0.95 | 0.38 | 0.34 | -0.71 | -0.35 | 1.23 | -0.48 | 1.25 | 0.17 | 0.78 | 0.66 | 1.36 | -1.30 | 0.07 | -0.13 | -0.95 | 0.76 | 0.54 | -0.39 | 0.15 |
| Guilladjé | 0.05 | 1.70 | -0.39 | -0.87 | 0.90 | 0.60 | -0.33 | 1.60 | 0.58 | 0.50 | 1.12 | 0.85 | -1.33 | 0.55 | -0.33 | -0.31 | 0.56 | 0.47 | -0.29 | 0.84 |
| Harikanassou | 1.39 | 2.18 | -1.29 | 0.04 | -0.18 | -0.27 | -0.65 | 1.42 | 0.99 | -0.86 | -0.28 | 0.83 | -0.48 | 0.15 | -0.44 | -0.54 | 1.29 | 0.77 | -0.06 | -0.11 |
| Kankandi | 1.09 | 1.52 | -0.76 | -0.64 | 0.90 | 0.17 | -0.46 | 1.65 | 0.50 | 0.34 | 0.35 | 0.66 | -0.92 | 0.44 | -0.36 | -0.46 | 0.63 | 0.56 | -0.02 | 0.82 |
| Kara Kara | -0.68 | 0.51 | 0.10 | -0.69 | -0.14 | 1.26 | -0.55 | 1.49 | 0.09 | 0.82 | 0.56 | 1.26 | -1.43 | 0.05 | -0.23 | -0.82 | 0.74 | 0.33 | -0.41 | 0.31 |
| Kargui Bangou | -0.68 | 0.51 | 0.10 | -0.69 | -0.14 | 1.26 | -0.55 | 1.49 | 0.09 | 0.82 | 0.56 | 1.26 | -1.43 | 0.05 | -0.23 | -0.82 | 0.74 | 0.33 | -0.41 | 0.31 |
| Kieché | -0.91 | 0.52 | -0.25 | -0.72 | -0.24 | 0.17 | -0.57 | 1.78 | 1.53 | -0.51 | 0.15 | 0.84 | -0.92 | 0.23 | 0.63 | -0.45 | 0.88 | 0.28 | -0.23 | -0.37 |
| Kiota | 1.39 | 2.18 | -1.29 | 0.04 | -0.18 | -0.27 | -0.65 | 1.42 | 0.99 | -0.86 | -0.28 | 0.83 | -0.48 | 0.15 | -0.44 | -0.54 | 1.29 | 0.77 | -0.06 | -0.11 |
| Kore Mairoua | -0.74 | 0.99 | -0.20 | -0.66 | 0.03 | 0.05 | -0.56 | 1.91 | 1.91 | -0.43 | 0.21 | 0.93 | -0.96 | 0.02 | 0.44 | -0.45 | 0.89 | 0.46 | -0.22 | -0.31 |
| Koygolo | 1.05 | 2.17 | -1.45 | 0.58 | -0.45 | -0.18 | -0.78 | 1.41 | 1.53 | -0.92 | 0.13 | 0.75 | -0.25 | -0.20 | -0.04 | -0.48 | 1.33 | 0.50 | -0.42 | -0.26 |
| Loga | 0.49 | 2.10 | -1.37 | -0.04 | -0.19 | -0.53 | -1.04 | 1.94 | 1.89 | -0.78 | -0.15 | 0.60 | -1.08 | -0.62 | 0.30 | -0.32 | 0.87 | 0.05 | -0.30 | -0.18 |
| Matankari | -0.80 | 0.50 | -0.87 | 0.16 | -0.37 | -0.16 | -1.03 | 1.52 | 2.09 | -1.13 | 0.20 | 0.68 | -1.11 | 0.61 | 0.59 | -0.28 | 1.54 | 0.83 | -0.29 | -0.48 |
| Mokko | 0.93 | 1.89 | -1.17 | -0.74 | 0.41 | -0.20 | -0.72 | 1.91 | 1.66 | -0.55 | -0.48 | 0.69 | -1.27 | -0.27 | 0.13 | -0.16 | 0.83 | 0.56 | -0.47 | -0.17 |
| Ngonga | 1.33 | 1.89 | -1.09 | -0.50 | 0.39 | -0.07 | -0.47 | 1.71 | 0.44 | -0.23 | -0.30 | 0.85 | -0.38 | 0.16 | -0.62 | -0.44 | 1.00 | 0.70 | -0.07 | 0.37 |
| Sambera | -0.48 | 1.92 | -0.13 | -1.04 | 0.48 | 1.21 | -0.26 | 1.34 | 0.17 | 0.41 | 1.43 | 0.80 | -1.31 | -0.38 | -0.15 | -0.30 | 0.72 | 0.71 | -0.22 | 0.86 |
| Sokorbe | 1.31 | 2.00 | -1.34 | -0.34 | 0.16 | -0.36 | -0.68 | 1.82 | 1.53 | -0.67 | -0.51 | 0.82 | -0.80 | -0.01 | -0.17 | -0.40 | 0.87 | 0.47 | -0.24 | -0.16 |
| Soucoucoutane | -0.16 | 1.13 | -0.52 | 0.33 | -0.07 | -0.27 | -0.92 | 1.33 | 1.44 | -0.46 | 0.18 | 0.76 | -0.93 | 0.61 | 0.65 | -0.64 | 1.37 | 0.59 | 0.12 | -0.48 |
| Tanda | 0.26 | 1.93 | 0.60 | -0.92 | -0.01 | 1.46 | -0.24 | 1.18 | -0.49 | 0.39 | 1.68 | 0.84 | -0.71 | -0.37 | -0.61 | -0.02 | 0.50 | 0.90 | -0.44 | 0.72 |
| Tessa | 0.05 | 0.87 | -0.35 | -0.64 | 0.07 | 1.16 | -0.62 | 1.49 | 0.01 | 0.84 | 0.63 | 1.02 | -1.52 | -0.05 | -0.22 | -0.60 | 0.62 | 0.41 | -0.21 | 0.69 |
| Tibiri | -0.80 | 0.52 | -0.19 | -0.68 | -0.07 | 0.85 | -0.30 | 1.47 | 1.01 | 0.28 | 0.39 | 1.45 | -1.21 | 0.33 | 0.31 | -0.62 | 0.97 | 0.25 | -0.45 | -0.11 |
| Tombokoarey 1 | -0.17 | 1.51 | -0.64 | -0.84 | 0.30 | -0.13 | -0.69 | 2.02 | 1.94 | -0.65 | -0.08 | 0.89 | -1.16 | -0.14 | 0.33 | -0.25 | 0.91 | 0.66 | -0.52 | -0.26 |
| Tombokoarey2 | -0.17 | 1.51 | -0.64 | -0.84 | 0.30 | -0.13 | -0.69 | 2.02 | 1.94 | -0.65 | -0.08 | 0.89 | -1.16 | -0.14 | 0.33 | -0.25 | 0.91 | 0.66 | -0.52 | -0.26 |
| Tounouga | 0.75 | 1.52 | 0.76 | -0.85 | 0.26 | 1.68 | -0.37 | 0.40 | -0.24 | 1.29 | 1.61 | 0.73 | -0.19 | -0.16 | -0.86 | -0.19 | 0.30 | 1.18 | -0.52 | 1.03 |
| Yelou | 0.26 | 1.93 | 0.60 | -0.92 | -0.01 | 1.46 | -0.24 | 1.18 | -0.49 | 0.39 | 1.68 | 0.84 | -0.71 | -0.37 | -0.61 | -0.02 | 0.50 | 0.90 | -0.44 | 0.72 |
| Zabori | -0.88 | 0.63 | 0.21 | -0.72 | -0.20 | 1.41 | -0.65 | 1.27 | -0.10 | 0.66 | 0.87 | 1.22 | -1.03 | -0.11 | -0.10 | -0.71 | 0.53 | 0.38 | -0.23 | 0.89 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Municipality** | **2006** |  |  |  | **2007** |  |  |  | **2008** |  |  |  | **2009** |  |  |  | **2010** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | -1.82 | 2.11 | 0.70 | 0.42 | 0.03 | 0.04 | 1.61 | -0.74 | 0.24 | -0.67 | -0.13 | 0.22 | 0.40 | -0.24 | -0.18 | -0.19 | 1.22 | -0.66 | 0.21 | -1.00 |
| Bengou | -1.94 | 1.67 | 0.27 | 0.25 | -0.22 | -0.01 | 2.26 | -0.87 | 0.25 | -0.84 | 0.26 | 0.34 | 0.58 | -0.12 | 0.06 | 0.00 | 1.13 | -1.07 | 0.14 | -1.38 |
| Birni Ngaoure | -1.99 | 1.68 | 0.00 | -0.27 | -0.32 | 0.71 | 0.89 | -0.33 | 0.18 | -0.31 | 0.50 | -0.80 | -0.12 | -0.01 | -0.50 | 0.17 | 1.97 | -0.56 | 0.85 | 0.14 |
| Dan Kassari | -0.58 | 0.67 | -0.32 | 2.42 | -0.79 | 1.19 | 0.99 | -1.01 | 2.21 | -0.63 | 0.33 | 0.22 | -0.11 | -0.53 | -1.55 | 0.14 | 1.44 | -0.34 | 0.62 | 0.70 |
| Dioundiou | -1.41 | 1.63 | -0.15 | 0.50 | 0.05 | -0.22 | 1.27 | -0.70 | 0.04 | -0.40 | 0.15 | -0.59 | -0.38 | -0.33 | -0.61 | -0.37 | 1.27 | -1.08 | 0.47 | -0.75 |
| Dogon Kirya | -1.04 | 1.00 | -0.42 | 1.69 | -0.46 | 1.38 | 0.99 | -0.81 | 2.36 | -0.85 | 0.26 | 0.04 | -0.33 | -0.20 | -1.21 | 0.67 | 1.27 | 0.06 | 0.47 | 0.49 |
| Dogondoutchi | -1.20 | 1.65 | -0.40 | 1.80 | -0.72 | 0.89 | 1.31 | -1.01 | 1.16 | -0.34 | 0.50 | -0.40 | -0.29 | 0.23 | -1.04 | -0.10 | 1.27 | -0.32 | 0.74 | 0.52 |
| Dosso | -1.96 | 1.67 | 0.01 | -0.20 | -0.12 | 0.63 | 1.00 | -0.37 | -0.04 | -0.07 | 0.58 | -0.74 | -0.27 | -0.05 | -0.40 | 0.08 | 1.57 | -0.69 | 0.90 | 0.09 |
| Doumega | -0.98 | 1.56 | 0.05 | 1.83 | -0.46 | -0.46 | 1.15 | -0.76 | 0.41 | -0.44 | 0.04 | -0.36 | -0.33 | -0.28 | -0.87 | -0.44 | 1.45 | -1.26 | 0.49 | -0.52 |
| Fabidji | -2.15 | 1.36 | -0.05 | -0.49 | -0.18 | 0.75 | 1.09 | -0.57 | 0.00 | -0.38 | 0.70 | -0.73 | -0.79 | -0.43 | -0.51 | 0.16 | 1.59 | -0.59 | 1.06 | 0.13 |
| Fakara | -1.83 | 1.88 | 0.01 | -0.29 | -0.32 | 0.83 | 0.89 | -0.55 | 0.29 | -0.56 | 0.34 | -0.88 | -0.17 | 0.07 | -0.71 | -0.02 | 1.55 | -0.48 | 0.91 | 0.20 |
| Falmey | -1.78 | 1.38 | -0.12 | -0.38 | -0.13 | 0.20 | 0.94 | -0.68 | 0.01 | -0.47 | 0.90 | -0.58 | -0.87 | -0.43 | -0.42 | -0.10 | 1.51 | -0.39 | 0.65 | -0.11 |
| Falwel | -1.19 | 1.60 | -0.50 | 1.22 | -0.56 | 0.99 | 1.29 | -0.89 | 0.91 | -0.53 | 0.44 | -0.82 | -0.37 | 0.10 | -0.86 | 0.00 | 1.18 | -0.35 | 0.79 | 0.37 |
| Farrey | -1.39 | 2.08 | -0.12 | 0.27 | 0.04 | -0.01 | 1.31 | -0.44 | -0.07 | -0.16 | 0.38 | -0.43 | -0.50 | -0.17 | -0.42 | -0.09 | 1.39 | -0.93 | 0.49 | -0.41 |
| Garankedey | -2.19 | 1.57 | 0.31 | -0.09 | -0.10 | 0.82 | 0.94 | -0.69 | 0.18 | -0.35 | 0.73 | -1.00 | 0.20 | -0.01 | -0.50 | -0.27 | 1.49 | -0.56 | 0.88 | 0.17 |
| Gaya | -1.86 | 1.75 | 0.25 | 0.22 | -0.17 | -0.26 | 1.99 | -0.52 | 0.26 | -0.68 | 0.01 | 0.43 | 1.02 | 0.09 | 0.05 | 0.16 | 1.12 | -0.95 | 0.07 | -1.01 |
| Golle | -1.92 | 1.50 | -0.06 | -0.31 | -0.29 | 0.27 | 1.24 | -0.33 | -0.14 | 0.01 | 0.66 | -0.69 | -0.88 | -0.25 | -0.46 | 0.29 | 1.59 | -0.85 | 0.92 | 0.04 |
| Gorou Bakassam | -1.75 | 1.64 | -0.19 | 0.21 | -0.29 | 0.39 | 1.28 | -0.34 | -0.18 | -0.02 | 0.61 | -0.61 | -0.53 | -0.03 | -0.49 | -0.06 | 1.26 | -0.87 | 0.77 | -0.03 |
| Guechemé | -0.98 | 1.56 | 0.05 | 1.83 | -0.46 | -0.46 | 1.15 | -0.76 | 0.41 | -0.44 | 0.04 | -0.36 | -0.33 | -0.28 | -0.87 | -0.44 | 1.45 | -1.26 | 0.49 | -0.52 |
| Guilladjé | -1.78 | 1.38 | -0.12 | -0.38 | -0.13 | 0.20 | 0.94 | -0.68 | 0.01 | -0.47 | 0.90 | -0.58 | -0.87 | -0.43 | -0.42 | -0.10 | 1.51 | -0.39 | 0.65 | -0.11 |
| Harikanassou | -1.85 | 1.54 | 0.25 | -0.15 | -0.19 | 0.65 | 0.75 | -0.62 | 0.33 | -0.49 | 0.62 | -0.98 | 0.56 | 0.02 | -0.50 | -0.18 | 1.61 | -0.48 | 0.86 | 0.28 |
| Kankandi | -2.15 | 1.36 | -0.05 | -0.49 | -0.18 | 0.75 | 1.09 | -0.57 | 0.00 | -0.38 | 0.70 | -0.73 | -0.79 | -0.43 | -0.51 | 0.16 | 1.59 | -0.59 | 1.06 | 0.13 |
| Kara Kara | -1.27 | 1.57 | -0.09 | 0.95 | -0.32 | -0.26 | 1.09 | -0.50 | 0.13 | -0.19 | 0.29 | -0.57 | -0.62 | -0.17 | -0.67 | -0.43 | 1.27 | -1.28 | 0.53 | -0.50 |
| Kargui Bangou | -1.27 | 1.57 | -0.09 | 0.95 | -0.32 | -0.26 | 1.09 | -0.50 | 0.13 | -0.19 | 0.29 | -0.57 | -0.62 | -0.17 | -0.67 | -0.43 | 1.27 | -1.28 | 0.53 | -0.50 |
| Kieché | -0.80 | 1.55 | 0.14 | 2.09 | -0.82 | 0.21 | 1.39 | -0.92 | 0.91 | -0.13 | 0.55 | 0.08 | -0.46 | -0.07 | -1.14 | -0.29 | 1.75 | -0.34 | 0.52 | 0.13 |
| Kiota | -1.85 | 1.54 | 0.25 | -0.15 | -0.19 | 0.65 | 0.75 | -0.62 | 0.33 | -0.49 | 0.62 | -0.98 | 0.56 | 0.02 | -0.50 | -0.18 | 1.61 | -0.48 | 0.86 | 0.28 |
| Kore Mairoua | -1.09 | 1.54 | -0.05 | 1.60 | -0.65 | 0.37 | 1.40 | -0.83 | 0.56 | -0.23 | 0.52 | -0.32 | -0.39 | 0.14 | -0.82 | -0.31 | 1.37 | -0.62 | 0.59 | 0.00 |
| Koygolo | -1.78 | 1.78 | 0.01 | -0.33 | -0.24 | 1.02 | 0.85 | -0.84 | 0.63 | -0.83 | 0.64 | -1.09 | 0.88 | -0.20 | -0.52 | -0.12 | 1.46 | -0.39 | 0.78 | 0.42 |
| Loga | -1.66 | 1.55 | -0.29 | 0.35 | -0.43 | 1.09 | 1.23 | -0.89 | 0.54 | -0.44 | 0.67 | -1.13 | -0.19 | 0.00 | -0.60 | -0.01 | 1.33 | -0.59 | 0.44 | 0.28 |
| Matankari | -1.20 | 1.12 | -0.44 | 1.83 | -0.77 | 1.56 | 1.01 | -1.06 | 1.78 | -0.64 | 0.46 | 0.03 | -0.02 | -0.22 | -1.39 | 0.10 | 1.29 | -0.20 | 0.69 | 0.71 |
| Mokko | -1.86 | 1.65 | -0.10 | 0.19 | -0.31 | 0.76 | 1.22 | -0.74 | 0.11 | -0.16 | 0.77 | -0.91 | -0.33 | 0.06 | -0.48 | -0.11 | 1.50 | -0.58 | 0.74 | 0.12 |
| Ngonga | -1.99 | 1.68 | 0.00 | -0.27 | -0.32 | 0.71 | 0.89 | -0.33 | 0.18 | -0.31 | 0.50 | -0.80 | -0.12 | -0.01 | -0.50 | 0.17 | 1.97 | -0.56 | 0.85 | 0.14 |
| Sambera | -1.49 | 2.03 | 0.15 | 0.18 | 0.09 | 0.04 | 1.20 | -0.61 | 0.20 | -0.39 | 0.32 | -0.41 | -0.16 | -0.21 | -0.31 | 0.10 | 1.40 | -0.45 | 0.40 | -0.18 |
| Sokorbe | -2.19 | 1.57 | 0.31 | -0.09 | -0.10 | 0.82 | 0.94 | -0.69 | 0.18 | -0.35 | 0.73 | -1.00 | 0.20 | -0.01 | -0.50 | -0.27 | 1.49 | -0.56 | 0.88 | 0.17 |
| Soucoucoutane | -1.05 | 1.50 | -0.35 | 1.44 | -0.67 | 1.56 | 1.18 | -0.85 | 2.31 | -0.71 | 0.26 | -0.18 | -0.34 | -0.29 | -1.03 | 0.89 | 1.27 | -0.03 | 0.42 | 0.51 |
| Tanda | -1.84 | 2.16 | 0.40 | 0.31 | -0.03 | -0.16 | 1.44 | -0.31 | 0.21 | -0.55 | -0.28 | 0.06 | 0.55 | -0.20 | -0.25 | -0.12 | 1.36 | -0.53 | 0.18 | -0.60 |
| Tessa | -1.64 | 1.82 | -0.17 | 0.11 | -0.29 | -0.12 | 1.21 | -0.14 | -0.14 | -0.03 | 0.48 | -0.68 | -0.74 | -0.06 | -0.52 | 0.07 | 1.33 | -1.08 | 0.72 | -0.15 |
| Tibiri | -0.88 | 1.32 | 0.15 | 1.67 | -0.69 | -0.25 | 1.30 | -0.79 | 0.47 | -0.47 | 0.24 | -0.25 | -0.39 | -0.05 | -0.72 | -0.41 | 1.40 | -1.06 | 0.64 | -0.14 |
| Tombokoarey 1 | -1.36 | 1.53 | -0.35 | 0.78 | -0.49 | 0.56 | 1.39 | -0.74 | 0.38 | -0.36 | 0.59 | -0.62 | -0.39 | 0.17 | -0.59 | -0.22 | 1.53 | -0.59 | 0.56 | 0.07 |
| Tombokoarey2 | -1.36 | 1.53 | -0.35 | 0.78 | -0.49 | 0.56 | 1.39 | -0.74 | 0.38 | -0.36 | 0.59 | -0.62 | -0.39 | 0.17 | -0.59 | -0.22 | 1.53 | -0.59 | 0.56 | 0.07 |
| Tounouga | -1.94 | 1.67 | 0.27 | 0.25 | -0.22 | -0.01 | 2.26 | -0.87 | 0.25 | -0.84 | 0.26 | 0.34 | 0.58 | -0.12 | 0.06 | 0.00 | 1.13 | -1.07 | 0.14 | -1.38 |
| Yelou | -1.84 | 2.16 | 0.40 | 0.31 | -0.03 | -0.16 | 1.44 | -0.31 | 0.21 | -0.55 | -0.28 | 0.06 | 0.55 | -0.20 | -0.25 | -0.12 | 1.36 | -0.53 | 0.18 | -0.60 |
| Zabori | -1.41 | 1.63 | -0.15 | 0.50 | 0.05 | -0.22 | 1.27 | -0.70 | 0.04 | -0.40 | 0.15 | -0.59 | -0.38 | -0.33 | -0.61 | -0.37 | 1.27 | -1.08 | 0.47 | -0.75 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Municipality** | **2011** |  |  |  | **2012** |  |  |  | **2013** |  |  |  | **2014** |  |  |  | **2015** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | -1.43 | -0.75 | 0.44 | -0.09 | -1.29 | 0.30 | -0.05 | 1.19 | 0.48 | -0.94 | -0.17 | -0.97 | -0.67 | -1.63 | -0.63 | 1.23 | -1.60 | -0.08 | 0.09 | 0.56 |
| Bengou | -1.71 | -1.08 | 1.12 | -0.41 | -1.45 | 0.50 | -0.24 | 0.95 | 0.37 | -1.37 | -0.28 | -1.01 | -0.89 | -2.21 | -0.75 | 0.89 | -1.85 | -0.45 | 0.38 | 0.01 |
| Birni Ngaoure | -1.16 | -1.33 | -0.12 | -0.49 | -1.04 | 0.91 | 0.61 | 0.86 | -0.05 | -0.82 | 0.86 | -1.04 | -0.92 | -0.26 | -0.25 | -0.06 | -1.13 | 0.36 | 0.44 | 0.60 |
| Dan Kassari | 1.19 | -2.44 | -0.40 | -0.45 | -0.76 | -0.68 | -0.07 | 1.31 | -0.41 | -0.80 | 0.24 | -0.90 | -0.05 | 1.10 | -0.03 | 0.09 | -0.70 | -0.24 | 0.78 | 1.43 |
| Dioundiou | -1.12 | -0.89 | -0.03 | -0.59 | -1.20 | 0.09 | 0.26 | 0.59 | 0.38 | -0.35 | 0.13 | -0.76 | -0.26 | -0.35 | -0.25 | 1.05 | -1.20 | 0.20 | 0.07 | 0.51 |
| Dogon Kirya | 0.28 | -2.29 | -0.73 | -0.68 | -0.88 | -0.51 | 0.83 | 1.70 | -0.52 | -1.09 | 0.88 | -1.01 | -0.07 | 0.58 | 0.04 | -0.43 | -0.80 | -0.22 | 0.63 | 1.16 |
| Dogondoutchi | -0.07 | -2.04 | -0.40 | -0.43 | -1.33 | -0.11 | 0.09 | 0.68 | -0.21 | -0.91 | 0.68 | -0.90 | -0.13 | 0.05 | -0.08 | -0.33 | -1.07 | -0.22 | 0.33 | 1.18 |
| Dosso | -0.86 | -1.25 | -0.03 | -0.64 | -1.19 | 0.90 | 0.74 | 1.04 | 0.08 | -1.11 | 0.64 | -1.02 | -0.39 | -0.38 | -0.28 | -0.06 | -0.90 | 0.27 | 0.51 | 0.70 |
| Doumega | -0.51 | -1.37 | -0.20 | -0.39 | -1.23 | -0.12 | 0.10 | 0.39 | 0.04 | -0.73 | -0.08 | -0.97 | -0.20 | -0.10 | -0.07 | 0.51 | -0.81 | -0.12 | -0.05 | 0.71 |
| Fabidji | -1.38 | -1.21 | 0.03 | -0.57 | -1.13 | 0.80 | 0.56 | 0.98 | 0.36 | -0.79 | 0.74 | -1.05 | -0.52 | -0.17 | -0.22 | 0.21 | -1.26 | 0.28 | 0.35 | 0.56 |
| Fakara | -1.56 | -1.26 | -0.07 | -0.51 | -1.11 | 0.88 | 0.52 | 0.66 | -0.05 | -0.95 | 1.00 | -1.12 | -0.97 | -0.42 | -0.17 | 0.19 | -0.77 | 0.21 | 0.43 | 0.43 |
| Falmey | -1.50 | -0.88 | 0.16 | -0.77 | -0.81 | 0.60 | 0.52 | 0.91 | 0.14 | -0.73 | 0.40 | -0.98 | -0.23 | -0.48 | -0.32 | 0.58 | -1.44 | 0.19 | 0.10 | 0.51 |
| Falwel | -0.42 | -1.82 | -0.44 | -0.70 | -1.51 | 0.22 | 0.27 | 0.59 | -0.27 | -0.88 | 0.87 | -1.16 | -0.25 | -0.20 | -0.25 | -0.65 | -0.79 | 0.29 | 0.19 | 0.97 |
| Farrey | -1.36 | -0.85 | -0.02 | -0.69 | -0.92 | 0.16 | 0.48 | 0.87 | 0.34 | -0.47 | 0.15 | -0.74 | -0.04 | -0.47 | -0.41 | 0.88 | -1.23 | 0.19 | 0.07 | 0.66 |
| Garankedey | -0.64 | -1.34 | -0.40 | -0.71 | -1.39 | 0.57 | 0.62 | 0.71 | -0.02 | -0.82 | 1.13 | -1.15 | -0.66 | -0.39 | -0.39 | -0.31 | -0.63 | 0.45 | 0.44 | 0.68 |
| Gaya | -1.89 | -0.95 | 0.96 | -0.48 | -1.16 | 0.45 | -0.22 | 1.08 | 0.62 | -1.11 | 0.00 | -1.08 | -0.82 | -2.33 | -0.60 | 0.50 | -2.17 | -0.24 | 0.46 | -0.28 |
| Golle | -1.24 | -1.16 | 0.07 | -0.68 | -1.06 | 0.85 | 0.54 | 0.84 | 0.19 | -0.94 | 0.36 | -1.06 | -0.23 | -0.06 | -0.27 | -0.04 | -1.20 | 0.26 | 0.35 | 0.40 |
| Gorou Bakassam | -0.95 | -1.44 | -0.11 | -0.51 | -1.52 | 0.42 | 0.79 | 0.99 | 0.13 | -0.87 | 0.50 | -1.14 | -0.01 | 0.04 | -0.20 | 0.02 | -0.79 | 0.56 | 0.74 | 0.68 |
| Guechemé | -0.51 | -1.37 | -0.20 | -0.39 | -1.23 | -0.12 | 0.10 | 0.39 | 0.04 | -0.73 | -0.08 | -0.97 | -0.20 | -0.10 | -0.07 | 0.51 | -0.81 | -0.12 | -0.05 | 0.71 |
| Guilladjé | -1.50 | -0.88 | 0.16 | -0.77 | -0.81 | 0.60 | 0.52 | 0.91 | 0.14 | -0.73 | 0.40 | -0.98 | -0.23 | -0.48 | -0.32 | 0.58 | -1.44 | 0.19 | 0.10 | 0.51 |
| Harikanassou | -1.10 | -1.26 | -0.43 | -0.81 | -1.00 | 0.87 | 0.41 | 0.73 | -0.09 | -0.66 | 1.26 | -1.36 | -0.92 | -0.55 | -0.44 | -0.32 | -0.81 | 0.46 | 0.45 | 0.67 |
| Kankandi | -1.38 | -1.21 | 0.03 | -0.57 | -1.13 | 0.80 | 0.56 | 0.98 | 0.36 | -0.79 | 0.74 | -1.05 | -0.52 | -0.17 | -0.22 | 0.21 | -1.26 | 0.28 | 0.35 | 0.56 |
| Kara Kara | -0.99 | -1.35 | -0.11 | -0.54 | -1.31 | -0.09 | 0.37 | 0.51 | 0.13 | -0.66 | 0.14 | -0.99 | 0.10 | -0.06 | -0.03 | 0.49 | -0.89 | 0.27 | 0.32 | 0.64 |
| Kargui Bangou | -0.99 | -1.35 | -0.11 | -0.54 | -1.31 | -0.09 | 0.37 | 0.51 | 0.13 | -0.66 | 0.14 | -0.99 | 0.10 | -0.06 | -0.03 | 0.49 | -0.89 | 0.27 | 0.32 | 0.64 |
| Kieché | 0.30 | -2.47 | -0.69 | -0.21 | -0.88 | -0.69 | -0.30 | 0.51 | 0.00 | -0.82 | 0.00 | -0.79 | -0.18 | 0.54 | -0.08 | 0.06 | -0.98 | -0.29 | 0.18 | 0.98 |
| Kiota | -1.10 | -1.26 | -0.43 | -0.81 | -1.00 | 0.87 | 0.41 | 0.73 | -0.09 | -0.66 | 1.26 | -1.36 | -0.92 | -0.55 | -0.44 | -0.32 | -0.81 | 0.46 | 0.45 | 0.67 |
| Kore Mairoua | -0.10 | -2.14 | -0.55 | -0.49 | -1.26 | -0.38 | 0.06 | 0.75 | -0.04 | -0.68 | 0.25 | -0.81 | -0.09 | 0.36 | -0.14 | 0.01 | -1.03 | -0.03 | 0.26 | 1.12 |
| Koygolo | -1.25 | -1.46 | -0.51 | -0.84 | -0.82 | 0.60 | 0.16 | 0.87 | -0.05 | -0.46 | 1.30 | -1.49 | -0.91 | -0.15 | -0.44 | -0.43 | -0.79 | 0.41 | 0.18 | 0.63 |
| Loga | -0.53 | -1.74 | -0.61 | -0.87 | -1.55 | 0.37 | -0.07 | 0.67 | -0.03 | -0.71 | 0.83 | -1.12 | -0.42 | -0.18 | -0.36 | -0.50 | -0.50 | 0.64 | -0.06 | 1.06 |
| Matankari | 0.35 | -2.34 | -0.71 | -0.40 | -1.02 | -0.48 | 0.05 | 1.08 | -0.15 | -1.09 | 0.56 | -0.88 | 0.05 | 0.56 | 0.12 | -0.10 | -0.83 | -0.42 | 0.76 | 1.47 |
| Mokko | -0.76 | -1.60 | -0.27 | -0.60 | -1.67 | 0.45 | 0.47 | 0.66 | -0.28 | -0.86 | 0.83 | -1.11 | -0.44 | -0.24 | -0.45 | -0.25 | -0.84 | 0.38 | 0.21 | 0.74 |
| Ngonga | -1.16 | -1.33 | -0.12 | -0.49 | -1.04 | 0.91 | 0.61 | 0.86 | -0.05 | -0.82 | 0.86 | -1.04 | -0.92 | -0.26 | -0.25 | -0.06 | -1.13 | 0.36 | 0.44 | 0.60 |
| Sambera | -1.43 | -0.71 | 0.28 | -0.45 | -0.57 | 0.27 | 0.58 | 1.22 | 0.34 | -0.43 | 0.16 | -0.86 | -0.36 | -1.11 | -0.39 | 0.94 | -1.51 | 0.03 | -0.25 | 0.58 |
| Sokorbe | -0.64 | -1.34 | -0.40 | -0.71 | -1.39 | 0.57 | 0.62 | 0.71 | -0.02 | -0.82 | 1.13 | -1.15 | -0.66 | -0.39 | -0.39 | -0.31 | -0.63 | 0.45 | 0.44 | 0.68 |
| Soucoucoutane | -0.36 | -2.18 | -0.87 | -0.78 | -1.09 | -0.45 | 0.53 | 1.69 | -0.54 | -1.32 | 0.97 | -1.02 | 0.07 | 0.18 | 0.15 | -0.73 | -0.86 | -0.06 | 0.68 | 1.41 |
| Tanda | -1.78 | -0.58 | 0.57 | -0.22 | -0.90 | 0.37 | 0.15 | 1.31 | 0.53 | -0.65 | -0.14 | -0.94 | -0.55 | -1.82 | -0.52 | 0.78 | -1.89 | 0.03 | -0.12 | 0.16 |
| Tessa | -1.08 | -1.35 | 0.10 | -0.62 | -1.21 | 0.21 | 0.40 | 0.77 | 0.10 | -0.76 | 0.11 | -1.04 | -0.02 | -0.08 | -0.14 | 0.33 | -1.16 | 0.31 | 0.36 | 0.67 |
| Tibiri | -0.29 | -2.03 | -0.46 | -0.28 | -1.09 | -0.16 | -0.14 | 0.69 | -0.08 | -0.73 | 0.03 | -0.87 | -0.23 | 0.37 | -0.06 | 0.32 | -0.99 | 0.06 | 0.28 | 0.95 |
| Tombokoarey 1 | -0.46 | -2.04 | -0.43 | -0.51 | -1.63 | 0.05 | 0.30 | 0.82 | -0.26 | -0.73 | 0.68 | -0.95 | -0.24 | 0.00 | -0.15 | 0.08 | -1.09 | 0.32 | 0.26 | 1.12 |
| Tombokoarey2 | -0.46 | -2.04 | -0.43 | -0.51 | -1.63 | 0.05 | 0.30 | 0.82 | -0.26 | -0.73 | 0.68 | -0.95 | -0.24 | 0.00 | -0.15 | 0.08 | -1.09 | 0.32 | 0.26 | 1.12 |
| Tounouga | -1.71 | -1.08 | 1.12 | -0.41 | -1.45 | 0.50 | -0.24 | 0.95 | 0.37 | -1.37 | -0.28 | -1.01 | -0.89 | -2.21 | -0.75 | 0.89 | -1.85 | -0.45 | 0.38 | 0.01 |
| Yelou | -1.78 | -0.58 | 0.57 | -0.22 | -0.90 | 0.37 | 0.15 | 1.31 | 0.53 | -0.65 | -0.14 | -0.94 | -0.55 | -1.82 | -0.52 | 0.78 | -1.89 | 0.03 | -0.12 | 0.16 |
| Zabori | -1.12 | -0.89 | -0.03 | -0.59 | -1.20 | 0.09 | 0.26 | 0.59 | 0.38 | -0.35 | 0.13 | -0.76 | -0.26 | -0.35 | -0.25 | 1.05 | -1.20 | 0.20 | 0.07 | 0.51 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Municipality** | **2016** |  |  |  | **2017** |  |  |  |
|  | **6** | **7** | **8** | **9** | **6** | **7** | **8** | **9** |
| Bana | -0.36 | -0.95 | -0.32 | 1.37 | 1.04 | -0.18 | -0.52 | -0.48 |
| Bengou | -0.23 | -1.31 | -0.31 | 0.97 | 0.62 | -0.35 | -0.20 | -0.44 |
| Birni Ngaoure | -1.10 | -0.56 | -0.37 | 0.46 | 1.52 | 0.31 | -0.59 | -1.29 |
| Dan Kassari | -0.60 | 1.00 | -1.06 | -0.33 | -0.10 | 0.29 | -1.22 | -0.88 |
| Dioundiou | -0.56 | -0.88 | -0.62 | 0.82 | 1.41 | -0.37 | -0.72 | -1.03 |
| Dogon Kirya | -0.21 | 1.10 | -1.16 | -0.06 | -0.28 | 0.08 | -1.07 | -1.24 |
| Dogondoutchi | -0.79 | 0.14 | -0.76 | -0.68 | 0.15 | -0.08 | -0.84 | -1.13 |
| Dosso | -1.16 | -0.78 | -0.45 | 0.52 | 1.69 | 0.22 | -0.83 | -1.29 |
| Doumega | -0.59 | -0.67 | -0.67 | -0.24 | 0.49 | -0.40 | -1.02 | -1.15 |
| Fabidji | -0.93 | -0.71 | -0.32 | 0.71 | 2.51 | -0.09 | -0.64 | -1.21 |
| Fakara | -0.23 | -0.66 | -0.25 | 0.38 | 2.46 | 0.06 | -0.35 | -1.14 |
| Falmey | -0.61 | -1.06 | -0.37 | 0.96 | 2.99 | -0.46 | -0.71 | -1.22 |
| Falwel | -0.38 | 0.05 | -0.99 | -0.73 | 0.31 | 0.21 | -0.75 | -1.26 |
| Farrey | -0.63 | -1.06 | -0.54 | 0.90 | 2.10 | -0.33 | -0.84 | -0.94 |
| Garankedey | -0.84 | -0.64 | -0.51 | 0.25 | 1.00 | 0.42 | -0.63 | -1.31 |
| Gaya | -0.48 | -1.35 | -0.07 | 0.34 | 0.76 | -0.28 | -0.03 | -0.48 |
| Golle | -1.02 | -0.65 | -0.49 | 0.33 | 2.24 | -0.15 | -1.04 | -1.34 |
| Gorou Bakassam | -1.13 | -0.55 | -0.38 | 0.16 | 1.61 | 0.32 | -0.69 | -1.33 |
| Guechemé | -0.59 | -0.67 | -0.67 | -0.24 | 0.49 | -0.40 | -1.02 | -1.15 |
| Guilladjé | -0.61 | -1.06 | -0.37 | 0.96 | 2.99 | -0.46 | -0.71 | -1.22 |
| Harikanassou | -0.51 | -0.57 | -0.55 | 0.20 | 1.34 | 0.20 | -0.56 | -1.16 |
| Kankandi | -0.93 | -0.71 | -0.32 | 0.71 | 2.51 | -0.09 | -0.64 | -1.21 |
| Kara Kara | -0.51 | -0.60 | -0.62 | 0.05 | 1.22 | -0.19 | -0.95 | -1.23 |
| Kargui Bangou | -0.51 | -0.60 | -0.62 | 0.05 | 1.22 | -0.19 | -0.95 | -1.23 |
| Kieché | -0.95 | 0.23 | -0.84 | -0.57 | 0.32 | -0.18 | -1.27 | -1.03 |
| Kiota | -0.51 | -0.57 | -0.55 | 0.20 | 1.34 | 0.20 | -0.56 | -1.16 |
| Kore Mairoua | -1.24 | 0.03 | -0.80 | -0.58 | 0.27 | 0.12 | -0.86 | -1.12 |
| Koygolo | -0.28 | -0.61 | -0.86 | 0.57 | 0.73 | 0.30 | -0.52 | -1.45 |
| Loga | 0.07 | -0.07 | -1.19 | -0.29 | 0.54 | 0.53 | -0.99 | -1.31 |
| Matankari | -0.40 | 0.64 | -0.91 | -0.30 | -0.05 | 0.22 | -0.99 | -1.05 |
| Mokko | -0.79 | -0.50 | -0.72 | 0.02 | 0.83 | 0.33 | -0.68 | -1.42 |
| Ngonga | -1.10 | -0.56 | -0.37 | 0.46 | 1.52 | 0.31 | -0.59 | -1.29 |
| Sambera | -0.87 | -1.52 | -0.33 | 1.27 | 2.39 | -0.40 | -0.49 | -0.68 |
| Sokorbe | -0.84 | -0.64 | -0.51 | 0.25 | 1.00 | 0.42 | -0.63 | -1.31 |
| Soucoucoutane | -0.24 | 0.83 | -0.96 | 0.06 | -0.47 | 0.32 | -0.94 | -1.31 |
| Tanda | -0.80 | -1.20 | -0.33 | 0.79 | 1.46 | -0.26 | -0.47 | -0.62 |
| Tessa | -0.89 | -0.64 | -0.62 | 0.39 | 1.89 | -0.20 | -1.01 | -1.20 |
| Tibiri | -1.17 | -0.36 | -0.68 | -0.61 | 0.22 | 0.03 | -1.04 | -1.14 |
| Tombokoarey 1 | -1.08 | -0.09 | -0.77 | -0.47 | 0.40 | 0.24 | -0.67 | -1.13 |
| Tombokoarey2 | -1.08 | -0.09 | -0.77 | -0.47 | 0.40 | 0.24 | -0.67 | -1.13 |
| Tounouga | -0.23 | -1.31 | -0.31 | 0.97 | 0.62 | -0.35 | -0.20 | -0.44 |
| Yelou | -0.80 | -1.20 | -0.33 | 0.79 | 1.46 | -0.26 | -0.47 | -0.62 |
| Zabori | -0.56 | -0.88 | -0.62 | 0.82 | 1.41 | -0.37 | -0.72 | -1.03 |