**Table S.1** Surface and population of the communes of Bouches-du-Rhône

|  |  |  |
| --- | --- | --- |
|  | **Surface (ha)** | **Population** |
| Aureille | 2118 | 1568 |
| Barbentane | 2734 | 4039 |
| Les Baux-De-Provence | 1791 | 420 |
| Boulbon | 1937 | 1497 |
| Cabannes | 1547 | 4423 |
| Chateaurenard | 3477 | 15644 |
| Eygalieres | 3435 | 1778 |
| Eyguieres | 6761 | 6852 |
| Eyragues | 2099 | 4271 |
| Fontvieille | 3897 | 3619 |
| Graveson | 2360 | 4659 |
| Maillane | 1685 | 2494 |
| Mas-Blanc-Des-Alpilles | 153 | 515 |
| Maussane-Les-Alpilles | 3185 | 2203 |
| Saint-Pierre-De-Mezoargues | 443 | 221 |
| Molleges | 1414 | 2551 |
| Mouries | 3792 | 3470 |
| Noves | 2653 | 5610 |
| Orgon | 3553 | 3109 |
| Paradou | 1631 | 1853 |
| Plan-D'orgon | 1487 | 3326 |
| Rognonas | 851 | 4018 |
| Saint-Andiol | 1585 | 3303 |
| Saint-Etienne-Du-Gres | 2977 | 2406 |
| Saint-Remy-De-Provence | 9031 | 9765 |
| Senas | 3101 | 7006 |
| Tarascon | 7429 | 14583 |
| Verquieres | 432 | 805 |
| **Total Bouches-du-Rhône** | **77556** | **116008** |

**Table S.2.** Surface and population of the communes of Gard.

|  |  |  |
| --- | --- | --- |
|  | **Surface (ha)** | **Population** |
| Les Angles | 1639 | 8443 |
| Aramon | 3109 | 4047 |
| Argilliers | 701 | 467 |
| Bagnols-Sur-Ceze | 3157 | 18172 |
| La Bastide-D'engras | 991 | 207 |
| Beaucaire | 8606 | 15859 |
| Bellegarde | 4563 | 6707 |
| Bezouce | 1245 | 2229 |
| Cabrieres | 1444 | 1588 |
| La Capelle-Et-Masmolene | 2472 | 445 |
| Castillon-Du-Gard | 1794 | 1607 |
| Cavillargues | 1123 | 819 |
| Chusclan | 1283 | 1008 |
| Codolet | 529 | 685 |
| Collias | 2125 | 1112 |
| Comps | 831 | 1731 |
| Connaux | 932 | 1641 |
| Domazan | 1151 | 913 |
| Estezargues | 1184 | 511 |
| Flaux | 1119 | 341 |
| Fournes | 1697 | 1017 |
| Fourques | 3832 | 2878 |
| Gaujac | 1010 | 1107 |
| Jonquieres-Saint-Vincent | 2133 | 3649 |
| Laudun-L'ardoise | 3407 | 6038 |
| Ledenon | 1930 | 1476 |
| Lirac | 963 | 888 |
| Manduel | 2631 | 6542 |
| Marguerittes | 2498 | 8577 |
| Meynes | 1708 | 2457 |
| Montfaucon | 403 | 1432 |
| Montfrin | 1501 | 3199 |
| Orsan | 691 | 1067 |
| Le Pin | 580 | 399 |
| Pougnadoresse | 729 | 247 |
| Poulx | 1169 | 3914 |
| Pouzilhac | 1624 | 660 |
| Pujaut | 2379 | 4139 |
| Redessan | 1562 | 4097 |
| Remoulins | 828 | 2337 |
| Rochefort-Du-Gard | 3368 | 7511 |
| Roquemaure | 2639 | 5464 |
| Sabran | 3583 | 1739 |
| Saint-Bonnet-Du-Gard | 662 | 861 |
| Saint-Etienne-Des-Sorts | 953 | 552 |
| Saint-Genies-De-Comolas | 782 | 1874 |
| Saint-Gervais | 1187 | 691 |
| Saint-Gervasy | 683 | 1793 |
| Saint-Hilaire-D'ozilhan | 1644 | 1009 |
| Saint-Hippolyte-De-Montaigu | 401 | 255 |
| Saint-Laurent-Des-Arbres | 1699 | 2829 |
| Saint-Maximin | 970 | 705 |
| Saint-Nazaire | 671 | 1192 |
| Saint-Pons-La-Calm | 648 | 427 |
| Saint-Quentin-La-Poterie | 2400 | 2951 |
| Saint-Siffret | 1192 | 1045 |
| Saint-Victor-Des-Oules | 457 | 310 |
| Saint-Victor-La-Coste | 2669 | 2009 |
| Sanilhac-Sagries | 2269 | 871 |
| Sauveterre | 1281 | 1909 |
| Saze | 1308 | 1971 |
| Sernhac | 905 | 1728 |
| Tavel | 2035 | 1915 |
| Theziers | 1165 | 1100 |
| Tresques | 1790 | 1774 |
| Uzes | 2551 | 8569 |
| Vallabregues | 1453 | 1369 |
| Vallabrix | 804 | 410 |
| Valliguieres | 1968 | 563 |
| Venejan | 1899 | 1211 |
| Vers-Pont-Du-Gard | 1920 | 1859 |
| Villeneuve-Les-Avignon | 1841 | 11716 |
| Saint-Paul-Les-Fonts | 528 | 1037 |
| **Total Gard** | **123599** | **195871** |

**Table S.3.** Surface and population of the communes of Vaucluse.

|  |  |  |
| --- | --- | --- |
|  | **Surface (ha)** | **Population** |
| Althen-Des-Paluds | 612 | 2671 |
| Aubignan | 1552 | 5404 |
| Avignon | 6473 | 92209 |
| Le Barroux | 1585 | 668 |
| Le Beaucet | 895 | 336 |
| Beaumes-De-Venise | 1920 | 2387 |
| Beaumettes | 226 | 247 |
| Bedarrides | 2528 | 5010 |
| Cabrieres-D'avignon | 1482 | 1733 |
| Caderousse | 3226 | 2771 |
| Cairanne | 2303 | 1046 |
| Camaret-Sur-Aigues | 1842 | 4659 |
| Caromb | 1811 | 3199 |
| Carpentras | 3808 | 28447 |
| Caumont-Sur-Durance | 1877 | 4718 |
| Cavaillon | 4597 | 26201 |
| Chateauneuf-De-Gadagne | 1301 | 3303 |
| Chateauneuf-Du-Pape | 2469 | 2199 |
| Cheval-Blanc | 5827 | 4092 |
| Courthezon | 3262 | 5487 |
| Entraigues-Sur-La-Sorgue | 1657 | 8230 |
| Gigondas | 2760 | 534 |
| Gordes | 4925 | 1961 |
| L'isle-Sur-La-Sorgue | 4455 | 19240 |
| Jonquerettes | 244 | 1440 |
| Jonquieres | 2404 | 4962 |
| Lafare | 428 | 131 |
| Lagarde-Pareol | 914 | 312 |
| Lagnes | 1627 | 1613 |
| Loriol-Du-Comtat | 1110 | 2549 |
| Malemort-Du-Comtat | 1138 | 1682 |
| Maubec | 914 | 1883 |
| Mazan | 3834 | 5841 |
| Menerbes | 3077 | 999 |
| Modene | 501 | 454 |
| Mondragon | 4038 | 3856 |
| Monteux | 3975 | 12537 |
| Morieres-Les-Avignon | 1045 | 8100 |
| Mornas | 2622 | 2403 |
| Oppede | 2419 | 1337 |
| Orange | 7563 | 29482 |
| Pernes-Les-Fontaines | 5089 | 9823 |
| Piolenc | 2423 | 5093 |
| Le Pontet | 1119 | 17476 |
| Rasteau | 1912 | 826 |
| Robion | 1809 | 4273 |
| La Roque-Alric | 488 | 51 |
| La Roque-Sur-Pernes | 1138 | 425 |
| Sablet | 1082 | 1240 |
| Sainte-Cecile-Les-Vignes | 1980 | 2420 |
| Saint-Didier | 395 | 2125 |
| Saint-Hippolyte-Le-Graveyron | 472 | 180 |
| Saint-Pantaleon | 56 | 213 |
| Saint-Pierre-De-Vassols | 483 | 516 |
| Saint-Saturnin-Les-Avignon | 637 | 4830 |
| Sarrians | 3798 | 5894 |
| Saumane-De-Vaucluse | 2058 | 931 |
| Serignan-Du-Comtat | 2039 | 2474 |
| Sorgues | 3353 | 18328 |
| Suzette | 665 | 124 |
| Taillades | 691 | 1960 |
| Le Thor | 3559 | 8706 |
| Travaillan | 1784 | 718 |
| Uchaux | 1882 | 1531 |
| Vacqueyras | 858 | 1202 |
| Fontaine-Vaucluse | 714 | 644 |
| Vedene | 1127 | 11045 |
| Velleron | 1625 | 2930 |
| Venasque | 3476 | 1099 |
| Violes | 1500 | 1616 |
| **Total Vaucluse** | **149457** | **415026** |

**Table S.4** Food consumption (Kg capita-1 yr-1) and yields (t ha-1 yr-1) in the study area. Note that yields for animal and non-domestic plant-based products are taken from [1].

|  |  |  |
| --- | --- | --- |
| **Commodity** | **Consumption****(Kg capita-1 yr-1)** | **Yields****(t ha-1 yr-1)** |
| Laying hens  | 11.53 |  - |
| Poultry meat | 22.90 |  - |
| Pig meat | 32.78 |  - |
| Fish meat  | 34.40 |  - |
| Milk for dairy products | 337.91 |  - |
| Beef cattle | 23.15 |  - |
| Sheep and goat meat | 2.84 |  - |
| Cereals  | 132.00 | 4.21 |
| Oilseeds  | 16.37 | 2.29 |
| Potatoes & Sweet Potatoes | 50.86 | 33.05 |
| Sugar  | 38.78 | 83.1 |
| Tomato | 21.71 | 115.32 |
| Vegetable | 68.49 | 59.30 |
| Pulses  | 1.87 | 2.81 |
| Onion | 6.46 | 36.8 |
| Apples | 9.36 | 42.65 |
| Fruits, other (temperate regions) | 29.53 | 20.04 |
| Grapes | 13.25 | 6.7 |
| Citrus Fruit and other tropical fruit | 33.96 |  - |
| Banana | 5.94 |  - |
| Nuts  | 5.31 |  - |
| Tea | 0.26 |  - |
| Coffee | 5.26 |  - |
| Wine | 40.65 |  - |
| Beer | 27.62 |  - |
| **Total** | **973.19** |  |

**Table S.5.** Area demand resulting from the application of the Metropolitan Fooshed and Self-Sufficiency scenario (MFSS) model in the foodshed [1]. Current crop area, and current self-sufficiency. The categories of the MFSS model were adjusted to the information on the current crops provided by the RPG database [2]. The self-sufficiency for the selected food commodities (grey highlight) arises from the current crop area/area demand ratio in percentage.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Food commodity (MFSS model categories)** | **Area demand per capita (m2 capita-1)** | **Area demand per capita (m2 capita-1) (adjusted categories)\*** | **Current crop area (m2)** |  | **Current crop area per capita (m2 capita-1)** | **Current Self-sufficiency (%)** |
| Cereals  | 313.51 | 313.51 | 156,032,213 |  | 214.65 | 68.47 |
| Oilseeds (vegetable fat) | 71.64 | 71.64 | 36,671,750 |  | 50.45 | 70.42 |
| Potatoes & Sweet Potatoes | 15.39 |   |   |  |   |   |
| Sugar (sugar beet. sugar cane) | 4.67 |   |   |  |   |   |
| Tomato | 1.88 |   |   |  |   |   |
| Vegetables | 11.55 | 30.58 | 48,811,190 |  | 67.15 | 219.61 |
| Pulses  | 6.65 | 6.65 | 21,992,124 |  | 30.25 | 455.17 |
| Onion | 1.76 |   |   |  |   |   |
| Apples | 2.19 |   |   |  |   |   |
| Fruits (temperate regions) | 14.73 | 16.93 | 93,613,294 |  | 128.78 | 760.79 |
| Grapes | 19.78 |   |   |  |   |   |
| Citrus Fruit and other tropical fruit | 36.17 |   |   |  |   |   |
| Banana | 2.91 |   |   |  |   |   |
| Nuts (treenuts. groundnuts. coconuts) | 53.10 | 53.10 | 29,338 |  | 0.04 | 0.08 |
| Cacao | 0.00 |   |   |  |   |   |
| Tea | 1.13 |   |   |  |   |   |
| Coffee | 62.62 |   |   |  |   |   |
| Wine  | 82.96 | 102.74 | 372,176,197 |  | 512.00 | 498.37 |
| Beer | 16.38 |   |   |  |   |   |

\* The area demand is estimated from the MFSS model. The categories have been adjusted in order to match those from the RPG database. Cereals include the following RPG categories: soft wheat, grain and silage maize, barley, other cereals, and rice. Oilseeds include the following RPG categories: rapeseed, sunflower, and other oil seeds. Vegetables include the following RPG categories: vegetables or flowers. Vegetables include the following MFSS categories: vegetables, tomatoes, potatoes and sweet potatoes, and onions. Pulses include the following RPG categories: protein crops and grain leguminous crops. Fruits (temperate regions) include the following RPG categories: orchards. Fruits (temperate regions) include the following MFSS categories: fruits (temperate regions) and apples. Nuts include the following RPG category: nuts. Wine includes the following RPG categories: vineyards. Wine includes the following MFSS categories: wine, and grapes.

**References**

1. Zasada, I.; Schmutz, U.; Wascher, D.; Kneafsey, M.; Corsi, S.; Mazzocchi, C.; Boyce, P.; Doernberg, A.; Sali, G.; Piorr, A. City , Culture and Society Food beyond the city – Analysing foodsheds and self-su ffi ciency for di ff erent food system scenarios in European metropolitan regions. *City, Culture and Society* **2019**, *16*, 25–35, doi:10.1016/j.ccs.2017.06.002.

2. Institut National de l’Information Géographique et Forestière *Registre Parcellaire Graphique*; 2014;