

TABLE I

THE LIST OF CLASSES WITHIN CLC AND PROPOSED CLASS NOMENCLATURES AND THEIR ASSOCIATED NUMBERS OF IMAGE PAIRS. THESE NUMBERS ARE OBTAINED AFTER ELIMINATING SENTINEL-2 IMAGE PATCHES THAT ARE FULLY COVERED BY SEASONAL SNOW, CLOUD, AND CLOUD SHADOW.

| CLC Class-Nomenclature | Number of Image Pairs | 19 Classes Nomenclature | Number of Image Pairs | | | |
|--|-----------------------|--|-----------------------|----------|------------|--------|
| | | | Total | Training | Validation | Test |
| Continuous urban fabric | 10,766 | Urban fabric | 74,891 | 38,783 | 18,180 | 17,928 |
| Discontinuous urban fabric | 65,894 | | | | | |
| Industrial or commercial units | 11,865 | Industrial or commercial units | 11,865 | 6,182 | 2,875 | 2,808 |
| Road and rail networks and associated land | 3,269 | removed | | | | |
| Port areas | 453 | | | | | |
| Airports | 820 | | | | | |
| Mineral extraction sites | 4,225 | | | | | |
| Dump sites | 822 | | | | | |
| Construction sites | 1,081 | | | | | |
| Green urban areas | 1,651 | | | | | |
| Sport and leisure facilities | 4,983 | | | | | |
| Non-irrigated arable land | 183,987 | | | | | |
| Permanently irrigated land | 13,571 | Arable land | 194,148 | 100,394 | 46,604 | 47,150 |
| Rice fields | 3,793 | Permanent crops | 29,350 | 15,862 | 6,676 | 6,812 |
| Vineyards | 9,524 | | | | | |
| Fruit trees and berry plantations | 4,672 | | | | | |
| Olive groves | 12,503 | | | | | |
| Annual crops associated with permanent crops | 7,019 | | | | | |
| Pastures | 98,997 | Pastures | 98,997 | 50,981 | 23,846 | 24,170 |
| Complex cultivation patterns | 104,203 | Complex cultivation patterns | 104,203 | 53,534 | 25,031 | 25,638 |
| Land principally occupied by agriculture, with significant areas of natural vegetation | 130,637 | Land principally occupied by agriculture, with significant areas of natural vegetation | 130,637 | 67,260 | 31,325 | 32,052 |
| Agro-forestry areas | 30,649 | Agro-forestry areas | 30,649 | 15,790 | 7,598 | 7,261 |
| Broad-leaved forest | 141,300 | Broad-leaved forest | 141,300 | 73,411 | 33,759 | 34,130 |
| Coniferous forest | 164,775 | Coniferous forest | 164,775 | 86,569 | 38,674 | 39,532 |
| Mixed forest | 176,567 | Mixed forest | 176,567 | 91,930 | 41,996 | 42,641 |
| Natural grassland | 11,141 | Natural grassland and sparsely vegetated areas | 12,022 | 6,663 | 2,560 | 2,799 |
| Sparsely vegetated areas | 1,202 | | | | | |
| Moors and heathland | 5,073 | Moors, heathland and sclerophyllous vegetation | 16,267 | 8,438 | 3,970 | 3,859 |
| Sclerophyllous vegetation | 11,241 | | | | | |
| Transitional woodland-shrub | 148,950 | Transitional woodland-shrub | 148,950 | 77,593 | 35,146 | 36,211 |
| Beaches, dunes, sands | 1,536 | Beaches, dunes, sands | 1,536 | 1,197 | 118 | 221 |
| Bare rock | 2,894 | removed | | | | |
| Burnt areas | 304 | removed | | | | |
| Inland marshes | 5,516 | Inland wetlands | 22,100 | 11,620 | 5,131 | 5,349 |
| Peatbogs | 16,667 | | | | | |
| Salt marshes | 1,339 | Coastal wetlands | 1,566 | 1,037 | 219 | 310 |
| Salines | 424 | | | | | |
| Intertidal flats | 962 | removed | | | | |
| Water courses | 9,792 | Inland waters | 67,277 | 35,349 | 15,751 | 16,177 |
| Water bodies | 58,009 | | | | | |
| Coastal lagoons | 1,495 | Marine waters | 74,877 | 39,114 | 17,740 | 18,023 |
| Estuaries | 1,064 | | | | | |
| Sea and ocean | 72,522 | | | | | |