**Supplementary material S2**

**T**able 1: CICES 4.3 adapted for RECARE

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| Section | Division | Group | Class | RECARE Division & Group |
| Provisioning | Nutrition | Biomass | Cultivated crops | Nutrition biomass |
|  | Reared animals and their outputs |
|  | Wild plants, algae, and their outputs |
|  | Wild animals and their outputs |
|  | Plants and algae from in-situ aquaculture | - |
|  | Animals from in-situ aquaculture | - |
|  | Water | Surface water for drinking | Nutrition water |
|  | Groundwater for drinking |
|  | Materials | Biomass | Fibres and other materials from plants, algae, and animals for direct use or processing | Material biomass |
|  | Materials from plants, algae, and animals for agricultural use |
|  | Genetic materials from all biota | - |
|  | Water | Surface water for non-drinking purposes | Material water |
|  | Groundwater for non-drinking purposes |
|  | Energy | Biomass-based energy sources | Plant-based resources | Biomass-based energy sources |
|  | Animal-based resources |
|  | Mechanical energy | Animal-based energy | - |
| Regulation & Maintenance | Mediation of waste, toxics and other nuisances | Mediation by biota | Bio-remediation by microorganisms, algae, plants, and animals | - |
|  |  | Filtration/sequestration/storage/accumulation by microorganisms, algae, plants, and animals | Mediation of waste, toxics and other nuisances |
|  | Mediation by ecosystems | Filtration/sequestration/storage/accumulation by ecosystems |
|  | Dilution by atmosphere, freshwater, and marine ecosystems | - |
|  | Mediation of smell/noise/visual impacts | - |
|  | Mediation of flows | Mass flows | Mass stabilization and control of erosion rates | Mediation of flows (mass, liquid, air) |
|  | Buffering and attenuation of mass flows |
|  | Liquid flows | Hydrological cycle and water flow maintenance |
|  | Flood protection |
|  | Gaseous / air flows | Storm protection |
|  | Ventilation and transpiration | - |
|  | Maintenance of physical, chemical, biological conditions | Lifecycle maintenance, habitat and gene pool protection | Pollination and seed dispersal | Lifecycle maintenance, habitat and gene pool protection |
|  | Maintaining nursery populations and habitats | - |
|  | Pest and disease control | Pest control | Pest and disease control |
|  | Disease control |
|  | Soil formation and composition | Weathering processes | Soil formation and composition |
|  | Decomposition and fixing processes |
|  | Water conditions | Chemical condition of freshwaters | Water conditions |
|  | Chemical condition of salt waters | - |
|  | Atmospheric composition and climate regulation | Global climate regulation by reduction of greenhouse gas concentrations | Atmospheric composition and climate regulation |
|  | Micro and regional climate regulation |
| Cultural | Physical and intellectual interactions with biota, ecosystems, and land-/seascapes [environmental settings] | Physical and experiential interactions | Experiential use of plants, animals, and land-/seascapes in different environmental settings | Physical and experiential interactions |
|  | Physical use of land-/seascapes in different environmental settings |
|  | Intellectual and representative interactions | Scientific | Intellectual and representative interactions |
|  | Educational |
|  | Heritage, cultural |
|  | Entertainment |
|  | Aesthetic |
|  | Spiritual, symbolic, and other interactions with biota, ecosystems, and land-/seascapes [environmental settings] | Spiritual and/or emblematic | Symbolic | - |
|  |  | Sacred and/or religious | Spiritual and symbolic interactions |
|  | Other cultural outputs | Existence |
|  |  | Bequest |