Table S2: List of definitions extracted from bibliographic research.

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| Reference | Definition |
| (de Haas & El Harradji, 2001) | “...agricultural areas in arid environments where agriculture is normally not possible without irrigation” |
| (Jia et al., 2004) | “...specific landscape that exists with deserts in arid regions.” |
| (Qi, Li & Duan, 2007) | “..specific and unique intrazonal land scapes that exist with deserts in arid and semi-arid regions of the world.” |
| (Zhang et al., 2012) | “...a unique geographic entity that appears as a well-vegetated ‘‘island’’ surrounded by large areas of drylands or deserts. It is characterized by having persistent water supply, abundant vegetation, and being isolated within semiarid to hyperarid regions.” |
| (Xie et al., 2014) | “...unique geographical landscape that has allowed flourishing vegetation and human settlements due to a stable water supply in an arid region” |
| (Powell & Fensham, 2016) | “...an island of verdant fertility sustained by ground-  water in a barren and desolate landscape...” |
| (Wei et al., 2020) | “...efficient eco-geographical landscape that allows flourishing vegetation or human settlement due to a stable water supply” |
| (Chen et al., 2022) | “...an area with flat terrain, stable water supply, and high productivity that can support human activities such as agriculture and animal husbandry and industrialized production with deserts as the landscape matrix” |
| (Liu, Wang & Xin, 2022) | “...heterogeneous ecological landscapes with significant microclimatic qualities effects that can be maintained in a stable manner” |
| (Sraïri & Ouidat, 2022) | “...areas with intense farming activities located in very arid environments, where conditions for human development are hostile” |
| (Cui et al., 2024) | “...exist in dryland climates [...] surrounded or partially surrounded by desert environments [...] with stable water supply (non-rainfed), landscape units with higher vegetation coverage (VC)/productivity have been formed.” |

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