***(Q1) How*** ***biomass*** ***and leaf*** ***traits*** ***shift*** ***with*** ***the*** ***addition*** ***of*** ***water*** ***and nutrients?***

**Total** **Biomass**

For the fixers species, plant total biomass increased significantly to the addition of water, nutrients and both (F and p-values). The addition of water increased 29% the total biomass compared to the ambient treatment. While the addition of nutrients increased the total biomass 63% and the addition of both, water and nutrients, increased the total biomass in 70% compared to the ambient rain treatment.

For non-fixers species, only the nutrients and the nutrients plus water treatments increased significantly the total biomass. In the case of the nutrients treatment, this treatment increased 39% the total biomass while the addition of both increased 41%. The addition of water had no significant effect on the total biomass.

**Biomass** **partition: Above** **and belowground** **biomass**

Aboveground biomass for fixers increased significantly when nutrients and nutrients plus water were added compared to the ambient rain treatment. Aboveground biomass increased 46% when nutrients were added and 80% when nutrients plus water were added. For non-fixers, aboveground biomass only increased significantly compared to the ambient rain in the nutrients plus water treatment. We found that belowground for fixers and non-fixers did not responded to the addition of water and/or nutrients (Fig).

**Biomass** **partition: root, stem** **and leaf** **biomass**

Fixer’s root mass responded significantly to all treatments. Nutrient addition increased root mass 78% compared to the ambient rain treatment while water increased 37% and nutrients plus water increased it 58%. For non fixers, only the addition of nutrients increased significantly root biomass in 47%.

Stem mass for fixers increased significantly 13% in the plus nutrients treatment and 34% in the nutrients plus water treatment. Non fixer’s stem mass did not change significantly in any of the treatments.

Leaf mass increased significantly for fixers and non-fixers in the nutrient and nutrients plus water treatments when compared to the ambient rain treatment. For fixers, the addition of nutrients increased 40% and the addition of nutrients plus water increased 73%. For non-fixers the addition of nutrients increased 43% whilst the addition of water and nutrients increased it 50%.

**Biomass** **partition: root, stem** **and leaf** **mass** **fractions** **Supplementary???**