

Men and Women Farmers in Navrongo-Bolgatanga Diocese (Ghana) Brave the Climate Change

The densely populated Upper East Region belongs to Ghana's poorest regions. Smallholder family farmers cultivate areas less than 1.5 hectares for subsistence and the local market. Soil fertility constantly decreases due to intensive agricultural use. Climate change with its declining rainfalls and shortened growing seasons gives the farmers a hard fight. The Diocesan Livelihood and Advocacy Programme (DILAP) supports the men and women farmers, among others, in protecting their soils, improving soil fertility and reforestation. DILAP's objectives are a sustainable agriculture and an increased resistance of the smallholder family farmers to climate change crises. The measures shown below are contributions to a larger endeavour.



Stone bunds along the contour lines protect the soil against erosion and increase the infiltration of water into the soils. If stones are lacking, similar positive effects can be achieved by vegetation strips of bunch grasses or little earth dams.

Women farmers demonstrate the *Zai* technique. At this, some 10,000 small pits per hectare are dug into highly degraded soils and filled with organic material. *Zai* allows to rehabilitate uncultivated areas and to restore soil fertility. Compared to conventional fields, the grain on fields with *Zai* turns out to be more resistant with respect to longer dry spells in the growing season. Such dry spells are increasingly observable within the context of changing climates.



For generations, tree fruits have represented an important source of income for women. Some useful tree species, however, got lost due to the conversion of natural vegetation into cultivated lands, or tree populations became too old. Irrigating the useful tree seedlings with bottles helps them growing. Smallholder women farmers mainly plant fruit trees like mango and moringa. After three to four years already, women can generate monetary income with mangos, with ten mango trees up to 400 € per year.

