

### Raising stone barriers together to boost agricultural production in Senegal



The *Frontline* project found that disease and flooding are the two major threats for the Kolda community in Senegal. The population has always faced a high degree of climate variability and over the last two decades, Senegal has seen temperature rises, variable rainfall and an increase in extreme events due to climate change. This has put additional pressure on agricultural production and the already degraded natural resources in

communities within the area. Increased temperature reduces the humus content of soils due to faster mineralisation. Further losses of fertile topsoil occur through water and wind erosion. Degraded soils infiltrate less water, have lower water storage capacities and produce less food and fodder. Restoring soils, improving soil fertility and enhancing water availability therefore increases and stabilises agricultural production.

During the *Frontline* consultations, local community members agreed to mobilise themselves to local action and learning, using traditional knowledge to build their resilience to floods and soil erosion by erecting stonewalls around farmlands they feel are vulnerable to floods and soil erosion. These stone walls act as permeable structures that act like a filter, trapping waterborne sediment and organic matter. The local technology has had positive environmental impacts. Degraded lands have been rehabilitated, crop yields have increased in the communities where the walls were constructed, and the entire *Frontline* process has resulted in increased attention to land use planning and the environment by villages. Ongoing awareness-raising efforts by the lead organisation, Shalom International, were also critical to ensure farmers' continued participation.