

Transforming Water Security in Sudan Through Sand Dams



Sand dams work by intercepting seasonal valley flows with a structure built from stones and cement mortar. Unlike conventional dams, they store water within sand deposits, preventing evaporation and contamination. This simple yet effective technology has allowed communities to access water through shallow wells and seepage, preventing evaporation and contamination and reducing their dependency on unpredictable rainfall, sustaining water resources year-round, enhancing agriculture, livestock management, and household use.

Scaling Impact and Localizing of Sand Dam

SOS Sahel transfer Sand Dams knowledge from Kenya, since early 2010, SOS Sahel Sudan took a bold step towards change, pioneering the construction of sand dams—is sustainable solution for water security for thousands of people in Sudan. Sand dam is sustainably localize through:

- **Building the local technical capacity in construction, maintain, to innovate further on this technology.**
- **Over 40 sand dams have been built across Sudan, proving the scalability and effectiveness of this solution.**
- **Sand Dams foster the Community-led efforts, skilled Sudanese builders making water security a self-sustaining intervention.**
- **Success is measured not just by the number of dams built but by the lasting impact on livelihoods, food security, and resilience and empowering generations to thrive.**

Future A Vision

SOS Sahel intervention areas in South Kordofan, North Darfur, and the Red Sea, water scarcity challenge, livelihoods, and resilience, SOS Sahel Sudan remains committed to expanding this model to new communities facing water shortages, ensuring that our approach continues to evolve and adapt to meet local needs. Our journey with dams proves that sustainability is not just about innovation but about empowering communities to take ownership of their future.