



World Food
Programme

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Water at the source of sustainable food security

How WFP's integrated resilience programme enables access to water and boosts resilience in the Sahel

The countries of the Sahel form a vast geographic belt of territories that are affected by recurring or protracted crises of food insecurity and malnutrition. With all its possible nuances, the context is above all characterized by advanced land degradation, and climate and weather variabilities that include recurrent episodes of drought and flooding. Most people live in rural areas and depend on agriculture, pastoralism or combinations thereof.

In this context, protecting ecosystems and the natural resource base is the very foundation of people's food security and nutrition. But when lands are stripped of their vegetative covers and fertile topsoil, they become unable to

withstand the heavy rains and winds of the Sahel. The various forms of erosion set in motion a vicious cycle that makes the lands extremely fragile and unable to meet the demands of agricultural and pastoral production.

Water – or the blue gold as it is known in environments like the Sahel where it is scarce but precious – is the limiting factor and essential to boost crop cultivation, vegetable gardening, and livestock farming. The scarcity of water and other key livelihood resources also endangers the delicate balance between farmers and herders and contributes to conflicts that jeopardize social cohesion within communities.

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Tapping into the potential: WFP's integrated resilience programme

At the same time, the Sahel also harbours enormous potential for transformation. WFP's resilience interventions support communities to tap into this potential, maintain food security in the face of multiple vulnerabilities, and enable transformative change. Since 2018, WFP has been working in close collaboration with governments and partners to scale up resilience interventions across the region. For the first time, **an integrated package of activities—combining asset creation, school feeding, nutrition interventions, capacity strengthening and seasonal support—is implemented across the region and at scale.** In practice, this means bringing degraded land back to life, getting children back to school, investing in healthy diets, creating jobs for the youth and building social cohesion throughout entire communities.

As water is foundational to sustain food production and ecosystem services, water harvesting and management is at the very core of WFP's integrated resilience package.

For example, soil conservation techniques such as half-moons, zai pits, deep trenches and stone bunds are used to **reduce water runoff and enhance water infiltration of the soil,**

thereby improving food and fodder production. Assets such as wells, ponds and boreholes **enable year-round access to water for irrigation and livestock, key livelihood activities for youth and women.** Large-scale water infrastructures such as diversion weirs and dams **protect against flooding and contribute to recharging the water tables.**

By transforming degraded land into productive areas, WFP's Food Assistance for Assets (FFA) interventions do more than just restore ecosystems, they create thousands of jobs, especially for youth and increase their engagement within their communities.

WFP and partners also enable displaced youth to access vocational training in sectors like mechanics and catering through Alternative Education Centres. These programmes have sparked entrepreneurship, boosted local economies and opened sustainable livelihood paths for young people in crisis-affected areas.

APPROACH & ACTIVITIES	ACHIEVEMENTS	IMPACT
<p>Integrated resilience activities, based on participatory watershed planning:</p> <ul style="list-style-type: none"> • Large scale land rehabilitation through a variety of soil and water conservation measures • Synergies with nutrition, education, and smallholder support activities • Convergence of different partners in the same geographic locations, targeting the same vulnerable communities • Concentration of different interventions over a period of at least five years • Community-focused through participatory planning tools • Government-led and -owned, supporting national systems and policies • Progressive scale-up since 2018, based on model implemented in Niger since 2014 	<p>Nearly 300,000 ha of degraded land rehabilitated (grasslands, agricultural lands, forests) since 2018, with:</p> <ul style="list-style-type: none"> • an estimated 2.4 billion m³ of runoff water harvested. • and approximately 475 million m³ of groundwater recharged to offset irrigation and for future generations to use. <p>Moreover, since the start of the scale-up across the region in 2018:</p> <ul style="list-style-type: none"> • 5008 ha of gardens established to produce fresh vegetables and fruits, • 3105 ponds, 762 wells, and 442 boreholes created or rehabilitated to enhance access to water for irrigation and livestock, key livelihood activities for youth and women • Over 4 million people were reached, including nearly 1 million youth benefitting from community-based employment opportunities through Food Assistance for Assets (FFA) activities . 	<p>Household surveys and complementary studies conducted since the start of the scale-up show:</p> <ul style="list-style-type: none"> • More than 75% of beneficiary households reported that the assets created or rehabilitated have improved agricultural or pastoral productivity through improved water management and soil fertility. • The sites benefit from natural regeneration—satellite-based analyses conducted with USAID and NASA in Niger found vegetation indices post-intervention 55% higher compared to previous years and 25% higher than in nearby non-intervened areas. • The IRP has improved trust and collaboration between youth, adults, and elders by fostering shared economic opportunities and community projects. IRP strengthened intergenerational relations, enabling greater cohesion and collective decision-making. • In Niger, 71% of youth reported reduced migration thanks to regular employment opportunities through FFA support, while others noted stronger food security and improved community well-being.

For more information, please contact the Resilience & Climate Action Unit of WFP's Regional Bureau Dakar or visit www.wfp.org/publications/integrated-resilience-sahel