



الصندوق الكويتي للتنمية
Kuwait Fund

The Fund's Contributions to Addressing Desertification



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INTRODUCTION

Challenges to the environment and the economy are escalating in light of rapid social and technological transformations, significantly impacting the lives of many communities. Among the most pressing issues are land degradation, desertification, and drought, which lead to declines in agricultural productivity and reduced crop yields, threatening food security and pushing rural communities into forced displacement in search of more stable living conditions.

The United Nations reports on combating desertification for 2023 highlight the scale of the environmental and humanitarian crisis. Land degradation affects the lives of 40% of the world's population, and the global economy incurs significant losses, estimated at about 10% of the global gross domestic product. Desertification also results in the loss of approximately 12 million hectares of agricultural land annually, equivalent to the production of 20 million tons of grain. This exacerbates the food security crisis and leads to high rates of hunger and forced population displacement.

Interest in the crisis of desertification and drought began in the 1970s due to severe drought waves that struck the African coast, leading to the loss of millions of hectares and the displacement of large numbers of people. This prompted the international community to hold the first conference to combat desertification in 1977, which marked the starting point for the establishment of the United Nations Convention to Combat Desertification in 1994. The convention serves as an international framework aimed at unifying global, regional, and national efforts. Nevertheless, no tangible progress was made in implementing international pledges until the twelfth Conference of the Parties was held in Ankara in 2015, due to financial challenges and limited support from decision-makers.

As conditions of sustainability grow, countries face significant challenges, most notably the need to build both national and international capacities, as well as adopt unified policies and methodologies that contribute to ensuring the sustainability of natural resources and mitigating the process of desertification. In addition, countries have differed in starting to use modern technology and collect data to measure progress and ensure proper planning for enhancing sustainable land management.

Moreover, combating desertification and land degradation requires new and innovative solutions, as well as ensuring easy access to financing that supports the transition to an environmentally friendly world in the context of climate change, which further complicates the situation.

In the face of these challenges and their resulting impacts, which have influenced the design of international initiatives and the formation of models for strategic partnerships and international cooperation, the member states of the United Nations launched ambitious initiatives under the framework of the United Nations Convention to Combat Desertification, aiming to address land degradation and promote environmental sustainability. These initiatives seek to build national and regional capacities, transfer technology, and provide geographic data for monitoring land changes and desertification. They also focus on developing integrated national strategies aligned with the goals of neutralizing the impact of land degradation, emphasizing land restoration, and ensuring financial support.

Among these initiatives is the Global Land Degradation Neutrality Target, which seeks to balance the loss of productive land with its restoration by 2030. Efforts also include cooperation between countries, institutions, the private sector, and civil society to support innovation, green initiatives, and ensure the sustainability of environmental systems.

In light of this, the global framework emphasizes the importance of the role of financial institutions in addressing land degradation, desertification, and drought, with a focus on supporting infrastructure development projects capable of confronting environmental challenges and enhancing resilience to build societies that can adapt to the effects of desertification. In the same context, The Kuwait Fund for Development recognizes the challenges faced by rural and agricultural communities and the urgent need to achieve food security and reduce land degradation.

The Fund supports trends and initiatives that focus on restoring degraded lands and promoting sustainable livelihoods, while taking into account natural resources and preserving ecosystems. It also works to motivate developing countries to adopt sustainable environmental practices through the financing agreements provided. Additionally, the Fund seeks to enhance the ability to adapt to environmental impacts and climate change, reduce desertification, and achieve food security for current and future generations.



An Overview of the Fund's Contributions to Addressing Desertification

Arab Republic of Egypt: Reclamation of 400,000 acres in North Sinai

The project consists of establishing the Salam Canal under the Suez Canal with a discharge rate of about 160 m³/s, where the length of the canal is about 770 meters, and its depth is about 15 meters from the bottom of the existing canal, supplying and installing fourteen pumps on the Salam Canal west of the Suez Canal, and establishing the Sheikh Jaber Canal with a length of about 175 km from the end of the Peace Canal to the Arish area in the east to transfer 160 m³/s of water to irrigate 400 thousand acres in the project area. Key components of the project also include the reclamation of 400,000 acres, along with the development of essential infrastructure, equipment, field roads, and other related works.

The project aims to transfer irrigation water from the Salam Canal located west of the Suez Canal, 27.4 km south of Port Said, via a drain passing under the Suez canal to the Salam Canal on its eastern side, then to the Arish area to irrigate the lands by exploiting the drain water and mixing it with the available Nile water, rationalizing the use of irrigation water, The resulting water is made suitable for agriculture, enabling the reclamation of 400,000 acres in North Sinai and increasing agricultural production in both its plant and animal aspects. The fund provided loans worth 222.96 million US dollars.

The benefits of the project include increasing plant and animal production, which significantly contributes to bridging the food gap, enhancing export opportunities for agricultural products, and fostering economic and social development in the region.





Republic of Tajikistan: Dangara Valley Irrigation Project

The project works include the rehabilitation of sections of main and sub-canals, the completion of a main sub-canal, the construction of field irrigation canals as well as main, sub-, and field drainage canals, and the reclamation and development of approximately 1,750 net hectares in the Dangara Valley in the south of the country, along with other related components.

The project aims to increase agricultural production in both the plant and animal sectors in the Dangara Valley, provide job opportunities for local residents, and contribute to improving the country's economic situation. The Fund contributed a loan worth 12.5 million US dollars.

The benefits of the project include improving the standard of living for the local population and raising their income levels, which in turn enhances education and healthcare. Additionally, the project aims to transform small villages into cities in the future, along with the development of accompanying services, roads, and industries, driving overall regional development.



People's Republic of China: Ningxia Integrated Rural Development Project (Phase I)

The project includes irrigation works such as expanding and constructing main and secondary canal and building the necessary pumping stations, power transmission works that include supplying, installing and constructing main and sub-distribution stations with the necessary lines for transmitting electricity and related facilities, and agricultural works that include developing and preparing land for cultivation, improving soil, rehabilitating guidance centers, building other new centers and seed improvement centers, with the necessary equipment, in addition to engineering and administrative services, training, obtaining land, and other elements.

The project aims to alleviate poverty in the southern regions of Hui Ningxia Province by raising the income and living standards of approximately 675,000 people residing in the mountainous areas. It also plans to resettle these individuals after developing about 86,700 hectares of land. The Fund contributed a loan worth 31.25 million US dollars.

The benefits of the project include increasing agricultural production and providing the necessary services to the community. For oilseeds, yields are expected to rise from 1 ton per hectare to 2.5 tons per hectare. The project will also ensure the production of 400–300 kg of grain per person, compared to the current 150 kg per person. Additionally, the forested area will expand from %1 to %20 of the total area in the two project locations, creating significant economic and environmental impacts. Notably, tree planting helps reduce natural erosion caused by strong winds, sandstorms, and rain. It also contributes to mitigating climate change and combating the effects of encroaching sand dunes.



Niger: Kandadji Dam Project

The project work includes the construction of the Kandadji Dam to renew the ecosystem and develop the Niger River Basin. The project aims to contribute to the renewal of the Niger River ecosystem and contribute to the provision of electrical energy in the future, as well as the provision of water needed for irrigation and drinking purposes. This will help in achieving food security and fighting poverty. The Fund contributed a loan worth 27.6 million US dollars.

The economic benefits of the project include protecting the river's ecosystem, ensuring the flow of water in the river's course throughout the year. The project contributes to food security by increasing the production of agricultural crops, livestock, and fish, and thus contribute to reducing poverty and increasing income.

This project contributes to achieving some of these sustainable development goals:

- Goal No. 2: Eliminate hunger:** By providing the necessary water for irrigation purposes, it contributes to increasing agricultural production and enhancing food security in the region.
- Goal No. 6: Clean water and hygiene:** The project contributes to providing clean water for drinking and irrigation purposes.
- Goal No. 7: Clean and affordable energy:** By contributing to the provision of electrical energy through the construction of the Kandadji Dam, the electricity needs of the region can be met, helping to provide energy at affordable prices.
- Goal No. 13: Climate Action:** Generating electricity from clean sources enhances the region's contribution to reducing carbon emissions and combating climate change.

Republic of Côte d'Ivoire: Irrigation in the Nzi River Basin

The project consists of constructing a rubber dam in the M'Bahiakro area, earth dams in the Ahlia and Atfou areas, establishing and equipping two pumping stations in the M'Bahiakro area, drilling and equipping wells with hand pumps, constructing and equipping storage facilities and rice mills, providing agricultural machinery, equipment, and services, along with other components.

The project aims to contribute to achieving self-sufficiency in rice, improving the standard of living for farmers in the three project areas (Ahlia, Atfou, and M'Bahiakro), and creating new job opportunities by reclaiming 783 hectares of land located in the Nzi River Basin, constructing and equipping the necessary irrigation facilities, and providing agricultural services to farmers. The Fund contributed a loan worth 9.68 million US dollars.

The benefits of the project are its contribution to achieving self-sufficiency in rice production, improving the living conditions of farmers in the project areas, and creating additional job opportunities.

Syrian Arab Republic: Khabur Irrigation Project

The project consists of building an earthen dam on the Khabur River, constructing irrigation and drainage channels, roads, wells for irrigation purposes, pumping stations, and establishing stations to generate electrical power, along with other elements.

The project aims to increase agricultural production by reclaiming approximately 40,000 hectares of land, contributing to achieving self-sufficiency in certain agricultural products, alleviating the pressure of migration to cities, and supporting electrical energy generation by producing about 9.5 megawatts. The Fund contributed a loan worth 31.25 million US dollars.

The benefits of the project include maximizing the use of water resources to develop the agricultural sector, expand the cultivated area, and support the electrical energy sector.



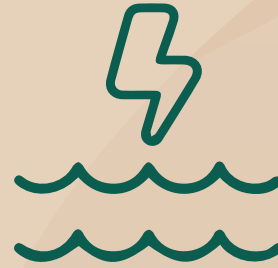


Republic of Mali: Integrated Development Project of Taoussa Region

The project consists of reclaiming approximately 185,000 hectares of agricultural land, developing both plant and animal production, and facilitating the transport of goods via the Niger River, along with other related components.

The project aims to contribute to achieving food security and population stability in the northern region of the Republic of Mali by constructing a regulatory dam on the Niger River at the Taoussa site to meet the irrigation needs of key agricultural and fodder crops. The Fund contributed a loan worth 18.75 million US dollars.

The direct benefits of the project include expanding the crop area and increasing the yield per hectare on approximately 46,000 hectares currently planted with rice and sorghum. This results in an increase in water availability from about %66 to around %90, contributing to a %60 increase in rice and sorghum production per hectare.



Republic of Burkina Faso: Smendini Dam for Agricultural Development

The project consists of the construction of an earthen dam on the Mohun River near its upper sources, a hydroelectric power station, an overhead transmission line, and an irrigation network. It also includes resettlement works, including the construction of housing and the provision of drinking water, electricity, schools, basic health and veterinary facilities, public services, and other components.

The project aims to develop agricultural production in the Smendini Valley on the banks of the Mohun River by building a dam to store water for irrigation purposes and reclaiming about 1,500 hectares of agricultural land as part of the proposed project. In the next phase, the project aims to expand this area to about 23,000 hectares, with the goal of increasing agricultural production in both the plant and animal sectors. The project also contributes to electricity production. The Fund contributed a loan worth 11.25 million US dollars.

The project benefits include improving agricultural development in the Smendini Valley, contributing to food self-sufficiency, enhancing the standard of living for farmers in the project area, and providing new job opportunities.



Democratic Socialist Republic of Sri Lanka: Mahaweli Development Project

The project includes the construction of a weir to divert a connecting canal crossing the Mahaweli River Basin, a main canal, subsidiary canals, an irrigation and drainage network, the clearing of forest trees, land preparation, road paving, and the construction of administrative buildings, as well as other buildings and elements.

The project aims to increase agricultural production by expanding the area of irrigated agricultural land, utilizing available water resources from the Mahaweli River to reclaim and irrigate 24,000 hectares and complete the irrigation of an additional 5,600 hectares. The project also aims to reduce food imports and boost agricultural crop exports. The Fund provided loans worth 44.40 million US dollars.

The benefits of the project include reducing food imports, increasing agricultural crop exports, settling a large number of poor farming families, and raising the standard of living.



Republic of Senegal: Bakel Agricultural Development Project

The project consists of constructing and equipping compacted earth irrigation canals, preparing drainage canals, constructing and equipping combined pumping stations (for irrigation and drainage), constructing and equipping drinking water wells, and installing the necessary water tanks at the project site, along with supplying pumps and transfer stations.

The project aims to increase agricultural production by reclaiming and preparing approximately 2,378 hectares of agricultural land across 20 villages and population centers in the Flouf and Valemi regions of Bakel province. It also aims to train farmers at the project site in modern agricultural methods and to support the National Company for the Development of the Senegal and Flami Basins with the necessary equipment and training programs. The Fund contributed a loan worth 7.18 million US dollars.

The project benefits include providing food security for the residents of the Bakel border region, which is threatened by desertification, developing livestock, promoting river fishing, planting fruit trees, and introducing additional varieties of vegetables. This diversification of food types enhances the health and living conditions of the population and provides additional opportunities for work and income generation.

Republic of Senegal: Senegal River Basin Development

The project includes the construction of two dams: one is the Diama Dam, located near the Egyptian River to prevent seawater from entering upstream during the dry season, along with the construction of earthen dams along the riverbanks. The other dam is the Monttali Dam, situated upstream on one of the main tributaries of the Senegal River, the Banbaq River. This dam aims to store and regulate water, along with other components.

The project aims to control the waters of the Senegal River and utilize them for irrigation purposes to cultivate a total area of 375,000 hectares, generate electrical energy with a capacity of 200 megawatts, and raise the river level to facilitate river navigation. The Fund contributed a loan worth 42.18 million US dollars.

Among the benefits of the project are significant economic and social advantages for the countries of the Third Senegal River Basin, including the provision of safe water resources in the Senegal Valley to mitigate the effects of drought and climate fluctuations, increasing agricultural production, providing a reliable source of energy, and facilitating river transportation.



Republic of Uzbekistan: Rehabilitation and Construction of Irrigation and Drainage System in Sardarya and Jizzakh Provinces

The project includes the establishment of model farms, environmental improvement works, the rehabilitation of irrigation canals spanning approximately 347 km, and the establishment and improvement of irrigation and drainage networks in Sardarya and Jizzakh provinces, along with other components.

The project aims to contribute to increasing agricultural production of major crops, improving the standard of living for farmers, and achieving food security in the country by rehabilitating, establishing, and improving irrigation and drainage facilities in Sardarya and Jizzakh provinces. These efforts irrigate approximately 222,000 hectares in Sardarya and 210,000 hectares in Jizzakh. The Fund contributed a loan worth 13.56 million US dollars.

The benefits of the project include contributing to achieving food security in the country, increasing farmers' incomes, and improving their standard of living. This results from increased agricultural crop production following the rehabilitation of the irrigation and drainage system in the project area and contributes to reducing the salinity of agricultural lands, which, in turn, may further enhance agricultural production.

Burkina Faso: The Development of Irrigated Agriculture in Sono and Kouri

The project aims at supporting the economic and social development of the Sourou Valley by developing irrigated agriculture in 2,000 hectares in Sono and Kouri. The project helps in enhancing the diversity and intensity of agricultural production, promoting the marketing of products, encouraging livestock and fish farming, protecting forests, and supporting the residents. Kuwait fund contributed to the project with an amount of around 19.2 million USD.

The project consists of civil and electromechanical work to develop the agricultural lands through the construction of irrigation systems, 8 pumping stations, a solar-powered electricity generation system, and irrigation and drainage networks. The project also includes support for the development of targeted lands, securing land tenure, social measures, coordination, evaluation, and management.

The project aligns with the following Sustainable Development Goals (SDGs):

- Goal No. 1: No Poverty:** By promoting economic and social development and supporting residents, the project contributes to improving living standards.
- Goal No. 2: Zero Hunger:** The development of irrigated agriculture helps diversify and intensify agricultural production, enhancing food security and contributing to sufficient food availability.
- Goal No. 6: Clean Water and Sanitation:** The project includes the development of irrigation systems and water networks, improving water resource management and enhancing access to safe water for agricultural.
- Goal No. 7: Affordable and Clean Energy:** The project incorporates a solar-powered electricity generation system, promoting the use of clean and renewable energy sources.
- Goal No. 13: Climate Action:** By using solar energy for electricity generation, the project reduces carbon emissions and promotes renewable energy.