High Atlas Foundation
مؤسسة الأطلس الكبير
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Project Proposal: Water Infrastructure Rehabilitation in Aroumd Village

Submitted by the High Atlas Foundation; 2 February 2024

1. Introduction: Water scarcity remains a pressing concern of rural farming communities impacted by the September 8, 2023 earthquake. The collapse of drinking water channels and irrigation systems has resulted in a shortage of water resources and the deterioration of water quality. Intensive field visits aimed at humanitarian aid distribution revealed significant water-related challenges affecting the well-being and stability of rural communities. Water infrastructure is inherently multidimensional and impacts health, hygiene, agriculture, livestock, and livelihood in a variety of ways. According to a 2022 report by the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, only 62% of rural households in Morocco have access to safely managed drinking water; 46% have access to safely managed sanitation; and 65% have access to materials for basic hygiene. Water borne illnesses are the leading cause of disease, and water infrastructure decreases infant and child mortality rates, general illness, infection rates, and other critical metrics for public health.

2. Current Situation in Aroumd Village: *Prior to the earthquake, HAF had been in consultation with these municipalities and villages working towards developing water project scopes aimed at irrigation systems in support of future tree planting activities.* Aroumd Village, home to 285 households including 3,100 individuals, anticipates a decrease in water accessibility per person. Long periods of drought, low rainfall, and the aftermath of the earthquake have heightened risks and uncertainties. This situation has adverse effects on potable water and irrigation, affecting the local population's daily lives. The extent of the damage varies by location, but the need is clear: water towers, piping, irrigation canals, and filtration systems are in urgent need of repair and reconstruction.

3. Importance of Traditional “Sequia” Irrigation System: The traditional irrigation system, a longstanding practice in rural communities, serves as a vital daily tool for agricultural fields. Rooted in oral knowledge, this system fosters community cohesion, encouraging collective management of water resources for the greater good. Analogous to a communal gathering space, an irrigation system brings people together to organize and manage its exploitation. Beyond its practical utility, the irrigation system represents an ancient cultural heritage and contributes to the social and solidarity economy.

4. Project Development: The High Atlas Foundation, through extensive meetings with locals, identified the fundamental role of the traditional irrigation system in sustainable development. The proposed project involves constructing a water reservoir and rebuilding the irrigation system, benefiting over 25,000 fruit trees. This initiative not only creates job opportunities for villagers but also supports local associations and cooperatives in tree planting projects. Furthermore, it serves as a cornerstone for broader development programs, empowering rural women to lead youth-focused initiatives. Local civil associations and cooperatives implement the project, with HAF providing oversight. The National Agency of Water and Forest is an essential partners and they provide the necessary authorizations and technical reviews.

Budget: The cost of the complete project is $358,660

Nº service	Description of supplies and works	Consis tance	QUANTITY	PU TTC	PT TTC
1	Civil engineering Manhole 1mx1mx1m with standard for filtration of spring catchment	Ens	5	1 680,00	8 400,00
4	20 cm sail in water-repellent reinforced concrete 300 KG/m3 + SIKALITE +iron 8 mesh 20 cmX 20 cm	m3	66	2 160,00	142 560,00
5	Civil engineering Manhole cover 1mx1mx1m with padlockable tempon	Ens	1	1 020,00	1 020,00
6	Hydraulic equipment with 2 DN 90 outlets + drain63 + connection fittings	Ens	1	960,00	960,00
8	1.50m high fenced basin	ML	52	102,00	5 304,00
9	Purchase and installation of PE DN 63 PN 16 bar	ml	600	39,60	23 760,00
10	Purchase and installation of PE DN 50 PN 16 bar	ml	1300	32,40	42 120,00
12	Purchase and installation of Ø 160 valves	U	1	2 760,00	2 760,00
16	Purchase and installation of egal 63 connection	U	6	84,00	504,00
17	Purchase and installation of egal 50 connection	U	12	60,00	720,00
19	Purchase and installation of 1" suction cup	U	4	300,00	1 200,00
21	Genie civil Manhole cover 50cmx50m with padlockable tempon	U	4	660,00	2 640,00
22	280W solar panels + Metal bracket	Ens	40	1 800,00	72 000,00
23	7.5 HP MASTRA submersible pump or similar	U	1	14 400,00	14 400,00
24	collier+ chassi + CORDE + SONDES+ jonction	Ens	1	1 800,00	1 800,00
25	7.5 HP solar inverter + protection box	U	1	10 200,00	10 200,00
26	Copper cable 3X4 mm2	ml	110	42,00	4 620,00
27	Copper cable 3X 1 mm2	ml	110	12,00	1 320,00
28	PUMP installation and start-up	M	1	6 000,00	6 000,00
29	Existing Seguia landscaping	ml	2500	78,00	195 000,00
30	construction Seguia 30/30	ml	3600	840,00	3 024 000,00
31	Stone or brick masonry	U	50	456,00	22 800,00
TOTAL TTC					3 584 088,00 MAD