
SAHARA-ROOTS FOUNDATION

A grassroots approach to help reduce desertification in the Moroccan Sahara and to help provide a sustainable environment for the people living there



Sahara-Roots Foundation (SSR) was established in 2008 in The Netherlands

SSR helping to create the “Joudour Sahara Culture Center” in M’hamid



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SSR plans to help create the Joudour Sahara Culture Center, the first local entity in the oasis of M’hamid and its region offering music & environmental education.

The objectives of this project is to allow youth to remain in and improve their local community, and most importantly, to become role models in protecting their local environment, thereby ensuring the survival of the cultural and natural landscapes of the oasis.

The Joudour Sahara Culture Center project is projected in the oasis of M’hamid El Ghizlane, the most southern oasis of the UNESCO Biosphere Drâa River Valley.

"Joudour Sahara" means "The Roots of the Sahara," and the Joudour Sahara Music Program's mission is to preserve and promote the rich heritage of the Draa Valley while enriching the lives of youth through music education. Joudour Sahara accomplishes this through after school education programming targeting local youth aged 8 - 29, primarily centered around music, and secondarily around nature protection. By expanding their educational opportunities, youth will be offered not only better economic prospects and opportunities for private entrepreneurship, but also a thorough understanding and safeguarding skills of their cultural and natural heritage, hence becoming key players in improving their communities. To do so we propose: music classes ranging from theory, musical playing and instrument building, to technical sound and video training; sustainability awareness through the school architecture and landscape (anti-desertification systems, water collection and recycling strategies etc....); skills development, entrepreneurship, and environmental workshops and campaigns and; training classes for and artistic and cross-cultural residencies.

Vision for “The Joudour Sahara Culture Center”

Vision: Improving the quality of life for the local people with the aim to retain the interest of the new generations to work and stay in their community by providing them with interesting local job opportunities and preserving their traditions, heritage and culture, and preserving the environment, by:

1. Building a **visitors center** to show the tourists all there is to learn about the music, culture & and the environment
2. Including a **music center** for education, starting with preserving and rejuvenating the traditional music heritage
3. Including an **exhibition center** about the local heritage and culture
4. Including a **landscaping** site to serve as a learning place about desertification & “greening” the desert
5. Building a **test site** for new water purification and energy production techniques
6. Building a **“Green Gateway & Wall”** by protecting the local villages from the encroaching desert sands
7. Building **ECO-culture/lodging facilities** to be a learning place on desert life for Morocco

Addendum: Organisation and planning of this project:

1. Improving the quality of life for the local people with interesting job opportunities (see slide 18)
2. History of the Joudour Sahara Culture Center project (see slide 19 and 20)
3. Establishing a foundation, possibly we can use the Joudour Sahara Foundation (see slide 21)
4. Deciding on the architect and construction plans and budgets (see slide 23)
5. Deciding on the proposed involved partners and Board members/management (proposal see slide 24)
6. Prepare a Business Plan and project planning overview (see slide 25)
7. Marketing plan and publicity locally, in Morocco & abroad about the Culture Center (see slide 26)

“The Joudour Sahara Culture Centre”

1. Building a local visitors centre to show the tourists all there is to learn about the music, culture & environment

Building a Visitor’s Centre in “The Café”:

1. That has good visibility for tourists on arrival in M’hamid
2. Improving the facilities of the existing building under the name “Café” at the entrance of the township M’Hamid, which is already being used for music classes, to accommodate for traditional music environment (tent sphere, recording machines, pillows etc)
3. Adding visitors-centre facilities, like well known visitors' centres for national parks elsewhere, such as a small exhibition of local specialties, photos of the environment, cultural artefacts etc
4. And adding a small garden providing the visitors an overview of the environment by showing the local trees and flowers
5. Building a test site for new water purification and energy production techniques. Install “Clear Water System” to provide free drink-water for all students & teachers, water for visitors with a small charge to refill their recyclable water bottle
6. The building also serves as a café/ meeting place
7. Include a small shop to sell local products and organize eco-tours
Thereby providing the local population with interesting local job opportunities



“The Joudour Sahara Culture Center”

2. Improving a music centre for education, starting with preserving and rejuvenating the traditional music heritage

Improving the music education center:

1. That already exists in “the Café” by renovating some rooms in the café to accommodate the necessities of implementing music activities.
2. Students can continue to attend lessons easily after school
3. Build a database of traditional local music to capture local heritage; the people who have it are aging..
4. Build small recording studio to record traditional local music and newly composed music
5. Build a storage place for music instruments
6. Buy music instruments when funds become available from sales out of the shop of the Culture Center
7. Explain to community and visitors/tourists that a space is being created for youth development.
8. An auditorium will also serve as a space for journalists, teachers and students to work on the computers



“The Joudour Sahara Culture Centre”

3. Building an exhibition centre about the local heritage and culture

Developing an exhibition center on culture:

1. Inside the Visitor's Center of the Joudour Sahara Culture Centre, that will be located inside the “Café” by renovating one of the rooms
2. Visitors will be able to get an impression about the local heritage and culture by looking at artifacts, photos of the past and present, stuffed animals like birds, foxes, snakes and scorpions etc
3. Build a database of the heritage and culture to be shown in a small theater setting
4. Develop little booklets and maps of the area for sale in the shop of the Visitors Center downstairs
5. Develop small artifacts and paintings for sale in the shop of the Visitors Center downstairs



“The Joudour Sahara Culture Centre”

4. Planting a small “landscaping site” next to the visitors centre to serve as a learning place for “greening & flowering” the desert...

Making a small garden:

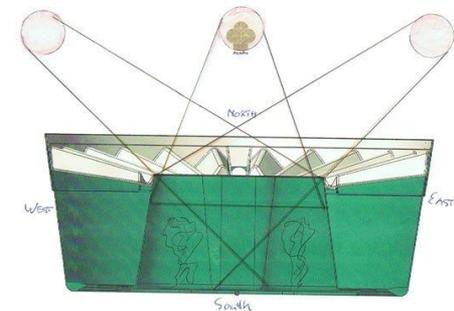
1. Planting a small garden just outside the Visitors Centre (next to the Café), to provide the visitors an overview of the environment by showing the local trees and flowers, and how to take care of them
2. Demonstrating the use of the water-efficient Groasis Waterboxx system (see next slide)
3. Developing an information booklet about the local vegetation and animal life, to be sold in the shop of the Visitors Centre
4. Developing a brochure about the “Green Gateway” to the Sahara and the “Green Wall” that is planned to be developed next to the village of Zaouia where the ECO Joudour Sahara Cultural Centre & lodging facilities will be built. This brochure will be available inside the Visitors Centre



“The Joudour Sahara Culture Center”

4. Making an exemplary botanical garden adjacent to the visitors centre to serve as a learning place for “greening & flowering” the desert...

How do we plant trees now in the desert? With the Groasis Waterboxx...!



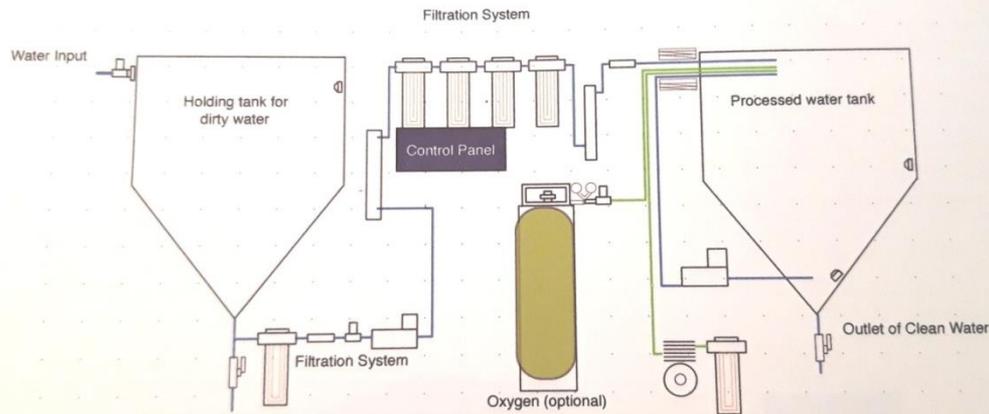
“The Joudour Sahara Culture Center”

5. Building a test site for new water purification & energy production techniques

Building a water & energy test site:

1. Install the “Clarity Water System” developed in the UK with the aim to convert brackish water into potable water, thereby providing free drink-water for all students & teachers, and water for visitors/tourists against a small charge to refill their (preferably) recyclable water bottles
2. Install a small wind-mill system developed in the UK, to generate electricity. This system is built to resist the severe weather conditions of the Sahara, such as strong winds and thin desert sand and dust
3. These two systems will be installed in/around the Visitors Center for testing purposes and usage , and when successful, will be used at the ECO Lodge site that will be build in the last stage of this Joudour Sahara Culture Center project

A Simple diagram of the CLARITY system.



“The Joudour Sahara Culture Center”

6. Building a “Green Gateway & Wall” by protecting the local villages from the encroaching desert sands

Planting the Green Gateway & Green Wall:

1. The *Green Gateway* is an exemplary botanical garden to be further developed on a piece of land adjacent to the beginning of the Sahara desert, at the end of the road near the last village under the name Zaouia. This is a Sahara-Roots project in partnership with Mr. Halim Sbai.
2. The “*Green Gateway*” is a much larger version of the garden adjacent to the Visitors Center in the township of M’Hamid, and shows much clearer the developments of the use of the water efficient Groasis Waterboxx for the various trees and shrubs and eco life around these waterboxxes. See further reading under point 4 here below
3. The “*Green Wall*” project is being developed to protect the village of Zaouia against the encroaching sand dunes. The plan is to build a wall of trees in waterboxxes of about 2 kilometers long around the village of Zaouia with the help and support of the local villagers and farmers. The start of the Green Wall happened last April 2019 on the land adjacent to the Green Gateway. See further on slide12
4. To enable the further development of the *Green Gateway and Wall*, we need to build a water reservoir. Even though the use of water is much more efficient that the traditional forms of water usage (with an enormous loss from evaporation), there is still a need for water...



“The Joudour Sahara Culture Center”

6. Building a “Green Gateway & Wall” by protecting the local villages from the encroaching desert sands

Starting the Green Gateway to the Sahara:

- provide a garden where every youth has one plant and they are responsible for taking care of it. Will encourage connection with music and land
- continue planting the “Green Wall” on the south side of the site and around the village of Zaouia as an example to fight desertification
- build rammed earthen walls for protection
- this plot of land can provide the community a good model for maintaining similarly placed plots of land, and can provide a model for rehabilitating other plots of land farther into the desert



Build a water-catchment reservoir on the site of the Green Gateway to the Sahara

As we all know, water is very scarce here, and farmers are allocated a limited amount of irrigation water through water channels. These are strictly controlled. Now, the site we are working on does not have a water-catchment reservoir in place, so we are dependent on water from the wells nearby. If we wish to continue planting in the future, especially in larger numbers, we will need to build a water reservoir.

“The Joudour Sahara Culture Center”

6. Building a “Green Gateway & Wall” by protecting the local villages from the encroaching desert sands

Starting the Green Wall

Sahara Roots has developed planting techniques in M’hamid over the last 10 years to raise the survival rate from 20% to 70%, thanks to the introduction of the re-usable Groasis Waterboxx system and relying on individuals to monitor the maturation and ensure the proper maintenance of the tree. The Groasis Waterboxx involves a very specific planting technique that simultaneously increases the survival rate and reduces the amount of water needed for the maintenance of the tree. The Sahara Roots Foundation has been working with this technique for years in M’hamid with remarkable success.

In April 2019 Sahara Roots started the planting of a “*Green Wall*” to help stop the desertification of agriculture land which was slowly being taken over by sand. It could also become an example for farmers from the area. We placed 100 Groasis waterboxx’s in 3 rows with approximately 1 ½ meters in-between, in front of the sand dunes.



“The Joudour Sahara Culture Center”

7. Building ECO-culture/lodging facilities: an educational centre for all

Building a small ECO lodge including music performance- and social areas

1. On the same land as the “Gateway to the Sahara”, we would like to establish an ECO-culture/ lodging facilities with the aim to provide a learning place for locals & visitors on desert life, without the use of environmentally unfriendly products, such as inefficient water usage, CO2 rich energy, plastics, chemicals and other materials
2. The culture & eco-lodge will be designed as an off the grid, set of buildings, which uses solar panels, innovative water collection and recycling systems, re-imagined traditional construction techniques, such as reinforced earth bricks, permaculture, and most importantly, a new anti desertification system composed of tamarisks trees, palm tree leaves matrices, earth walls and swells
3. The idea is to build 4 x eco-guest-rooms as well as social buildings such as meeting places, compost toilets, outside music theatre (auditorium?), workshop space and eating space
4. What kids love is singing/performing for others, and an auditorium will serve this purpose
5. Youth will be able to partake in the easy steps of the construction of the buildings and landscapes, but also experience innovative systems firsthand, and possibly volunteer in the tree maintenance and sand dunes monitoring teams.
6. An environmental campaign will introduce local youth to the design and educational initiatives during and after construction is complete.

A self-generating income center

The vision of the Joudour Sahara Culture Center is that it will be a center with the aim of financial autonomy. In addition to financial donations, the school will have its own income. These will be generated by several activities: renting rooms for visitors as part of musical exchange or tourist accommodation, rental of recording studio and concert place, sale and repair of musical instruments, etc. Craft and artistic creations by students, local art cooperatives or even visitors will be an additional income.

“The Joudour Sahara Culture Center”

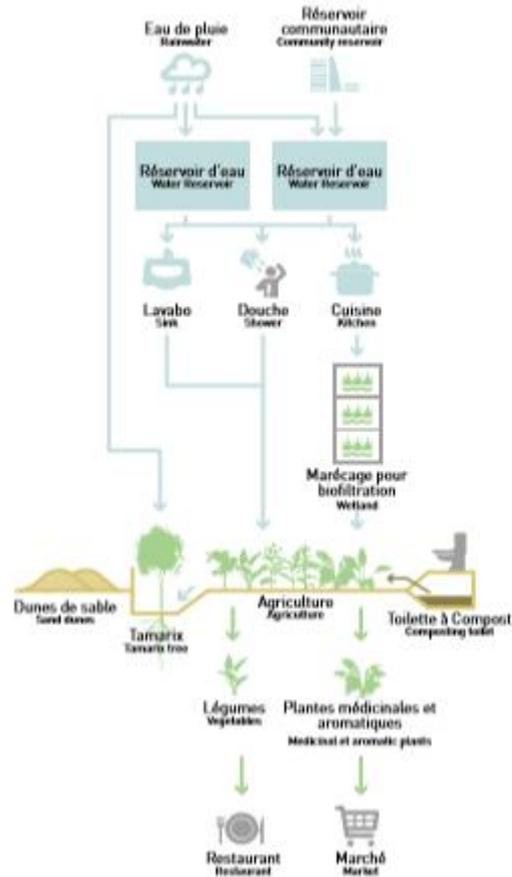
7. Building the ECO lodge: Architectural design for ECO Joudour Sahara Cultural Center & lodging facilities by Aziza Chaouni Projects



“The Joudour Sahara Culture Center”

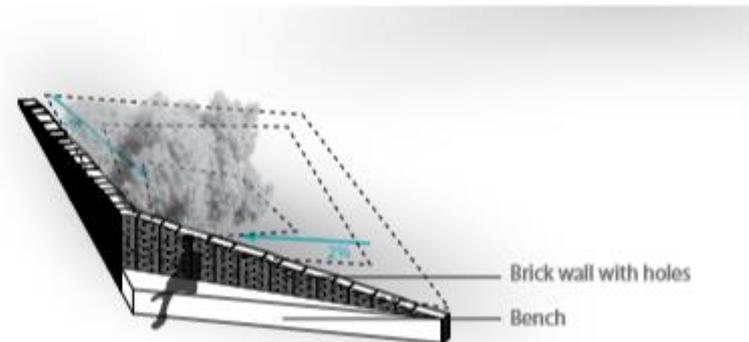
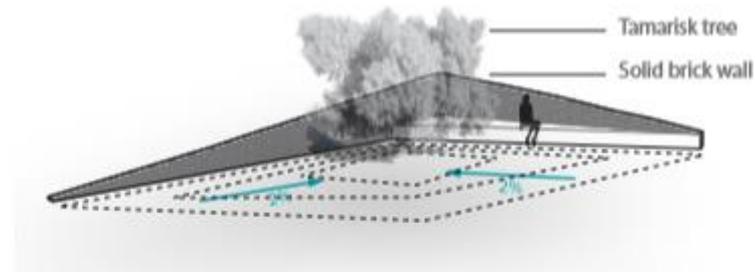
7. Building the Eco lodge: Architectural design for ECO Joudour Sahara Cultural Center & lodging facilities by Aziza Chaouni Projects

CONSERVATION DE L'EAU WATER CONSERVATION



SYSTÈME DE RETENTION DES DUNES DE SABLE SAND DUNES RETENTION SYSTEM

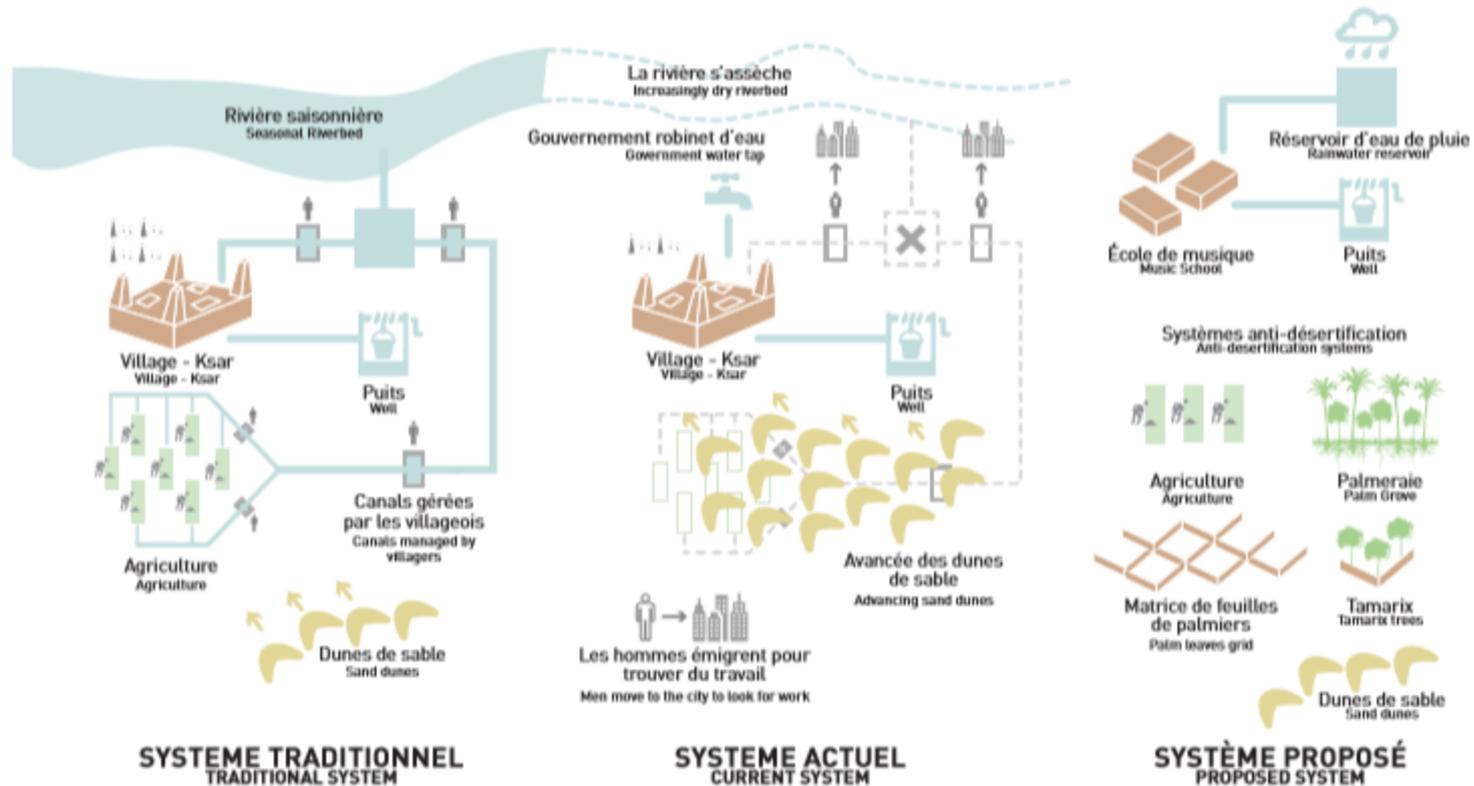
Tamarix and acacia trees are coupled with earth walls and sloped topography in order to form an efficient barrier against desertification.



“The Joudour Sahara Culture Center”

7. Building the Eco lodge: Architectural design for ECO Joudour Sahara

TRANSFORMATION DES OASIS OASIS TRANSFORMATIONS



Addendum: Organisation and planning of this project

Addendum 1: Vision: Improving the quality of life for the local people with the aim to retain the interest of the new generations to work and stay in their community by providing them with interesting local job opportunities & register cultural and musical heritage.

Youth to stay in their community:

- the Joudour Sahara Culture Center/lodge facilities will need staff
- the Joudour Sahara Music Projects will provide attractive cultural opportunities to local youth and cultural operators. Its mission will be to register and list this heritage, as part of an ambitious project that has already received support from the US Ambassadors Fund for Cultural Preservation (AFCP).
- the community will be more attractive for visitors/tourists who will bring additional business



Addendum: Organisation and planning of this project

Addendum 2: History of the Joudour Sahara Music Project

Joudour Sahara Music Program

The Joudour Sahara Music Program, employs local musicians to engage local youth focusing on both traditional and modern (such as Saharan Blues music that uses electric instruments), utilizing an internationally proven music curriculum developed by the [Playing For Change Foundation](#) that has been adapted to fit the cultural context of M'hamid. Music events have taken place monthly for the students to showcase their development in front of the community to build confidence.

September 2016: Free music lessons started as an after-school activity. Unfortunately, the new buildings still must be constructed so music classes and activities have since then been held in a large, existing building belonging to Sahara-Roots local partner [Mr.Halim Sbaj](#), located in the center of M'hamid. This space is a cafe and untenable for sustainable programming.

June 2019: Joudour Sahara is supported by [Playing For Change Foundation](#) and the International Society of Music Education [ISME](#) to drive cultural preservation in the southern Draa Valley of Morocco. These partners are helping to provide opportunities for traditional musicians and provide spaces to transmit traditional knowledge to young generations. The Playing for Change Foundation arose from a common belief that music has the power to connect people regardless of their differences. In 2005, a small group of filmmakers set out with a dream to create a film rooted in the music of the streets. Not only has that dream been realized, it has grown into a global sensation that has touched the lives of millions of people around the world. In 2007, the Playing for Change Foundation was established as a 501(c)3 non-profit organization created to inspire, connect, and bring peace to the world through music. Since its inception, Playing for Change has created 11 schools and music programs around the world. In addition to its music programming and capacity building expertise, Playing for Change will bring to the project its guiding principles: a. using music to transform lives and communities; b. connecting people and communities (locally and globally); c. creating economic empowerment (use of local materials and labor, teachers, earned income through instrument creation, performances, administration of the school); and d. fostering local leadership. [Watch this video](#) to hear from the musicians themselves as they discuss the importance and urgency needed in working to preserve invaluable cultural heritage.

Addendum: Organisation and planning of this project

Addendum 2: History of Sahara-Roots”

Since 2007, the Sahara-Roots Foundation seeks to create awareness amongst the population in the area of the M'hamid village about the importance of maintaining their beautiful oasis environment.

In cooperation with local associations, its activities are focused on planting trees, assisting in clean-up campaigns and in stimulating local children by distributing and reading Wanda Hebly's children booklet "ME AND MY SAHARA", narrated in Arabic language. Throughout the years, Sahara Roots has tested several tree planting and irrigation techniques. Since 2011, we have successfully introduced the Groasis waterboxx system in M'hamid, raising the tree survival rates from 20% to 70%. Sahara Roots will oversee the project's landscape and its anti-desertification infrastructure.

October 2016: Sahara- Roots Foundation planted the first [50 Groasis waterboxx's](#) with their trees on the "Green Gateway to the Sahara" planting site in the village of Zaouia. The Groasis Waterboxx plantcocoon® is an instrument that supports plants and trees to survive in difficult circumstances without using groundwater or electricity. It collects water by catching rainwater, and by producing and catching water from condensation. It subsequently distributes the collected water over an extended period, to the tree growing in the center of the Waterboxx plantcocoon®

May 2019: By the end of [April 2019](#) about 207 waterboxx's are now on the site as well as many trees that are now self sustaining. These trees and waterboxx's have been planted together with students of the Joudour Sahara Music school, local farmers and visitors both national and international.



Addendum: Organisation and planning of this project

Entwining traditional culture with environmental issues.

We believe that every tree that survives helps to give the local community hope that their villages will not disappear under the ever encroaching Sahara sands. With a combination of their music & dance and our planting, we have entwined their traditional culture with environmental issues. Our hope is that ultimately the local villagers will take over our efforts and defend their land with our new water conservation techniques in combination with their traditional knowledge of the land.

27 August 2019

Sahara-Roots Foundation

Wanda & Adriaan Hebly

