**Connection**

**1. Concept narrative**

Our concept is a land art type plan for the problem presented in the tender description, the catchwords of which are ‘connection’, ‘link’ and ‘network’.

During the whole planning process functionality and multifunctionality, the possibility of easy feasibility and sustainable operation were important standpoints. Our idea was to place bamboo columns in a defined raster in and near the village according to the characteristics of the settlement. Their role is not only attention raising and giving visual experience, but at the same time these points also provide water access and power points for the locals as well as tourists.

All the columns consist of three bamboo poles which are 10 centimeters in diameter. The three poles are connected at several points by metal ties and fixed to the ground by ground screws. All the columns are colored, the goal of which is attention raising, aesthetics, visual experience and spectacularity. When choosing colors, it was important for us to use the colors of the local culture and Hindu religion. Those columns that have outstanding roles – electric power and water access points – also get woven fabric covering decorated with local weaving patterns, in the making of which we trust the local expertise.

After discussing it with the locals there is a possibility to place more columns in chosen places. This way they can hang up hammocks with the help of hanging hooks.

As required, spaces between the columns could be covered with tarps. The place and number of these are optional and replaceable.

We placed the 400 m2 solar park, required in the tender description, on the given area in a simple raster, so that they can work with the best efficiency. The solar panels are raised from the ground and put on top of a colorful system of columns. We solved the problem of different placement heights and the angle of inclination of the panels by gradually changing the heights of the columns below. In addition to this, we also placed a transformer next to the solar park, the goal of which is that it can transfer the high voltage electric energy produced by the solar panels into a lower voltage electric energy for everyday use.

Our idea was to collect water from the surface of the panels placed at 18 degrees from where water runs into an underground water collector. The amount of water to be used gets to the point of use through underground plumbing. Parallel to this, above ground, insulated wires run between certain columns in order to deliver energy to the power points in the village.

**2. Technical narrative**

As we mentioned above, during the whole planning process we tried to focus on making our project as simple as possible, easily and quickly feasible, at the same time something that requires low costs and includes sustainable solutions. We created a concept that involves local culture and materials, so we hope that this way village people and tourists will love and like to use it.

Our idea was to collect water from the surface of the panels placed at 18 degrees from where water runs into an underground water collector. The amount of water to be used gets to the point of use through underground plumbing. We pass the water through a water treatment system to reach drinking water quality. During the first phase, the system removes larger solid particles. After that, during the secondary treatment, the system breaks down smaller organic matters.

Parallel to the water pipes, above ground, insulated wires run between certain columns to deliver energy to the power points in the village.

According to our calculations, our solar panel system will generate approximately 1 275 345,6 kWh energy and 1 670 m3 water each year.

**3. Prototyping and Pilot Implementation Statement**

As mentioned earlier, the implementation of the project requires simple tools, relatively few materials, and can be built on a low budget. During the prototype phase we will need to color, assemble and place some columns. This way we will have the opportunity to examine their stability, how the system works, so we can find possible difficulties – problems with assembly, and how the bamboo columns can be attached to the ground.

It is possible to make the first experimental elements in our country. The materials (e.g. bamboo poles, paint) of the columns and other necessary tools are available, but it can also happen that their quality and other technical properties are different. The process of choosing the right paints with appropriate coverage and color and finding the best metal ties to connect the poles can happen during the first experiments. All of these require low time, energy and financial input, and can be easily feasible. This way we can test the right functionality and building techniques of the elements.

We see the project as a community building process in which designers and village people take part, so everyone can feel the final creation as their own.

During the planning phase we tried to get to know the colors and patterns of the local culture to use them while making our concept. We hope that with the help of this, the project can get closer to the people.

**4. Operations and Maintenance Statement**

It was an important standpoint of the concept to make it as sustainable as possible and minimize its effect on the natural environment by using local materials that are reusable or recyclable. To make the columns only a few different materials and tools are necessary – bamboo poles, paint, ties and yarn. Most of them are available on the island, so import is not required.

In case of damage or ruin of the bamboo poles, after cutting the ties, the damaged part can be easily changed. Since the new part needs painting, there is an opportunity to correct the other parts as well, if necessary.

It is imaginable that every few years as a community program, they examine all the elements of the columns, and replace, recolor or change their design.

**5. Environmental Impact Assessment**

We designed the project in a way that uses as many eco-friendly materials as possible. The yarn used for weaving and bamboo are all natural materials. In case we use metal ties to connect the poles, it is possible to recycle the used and old ones.

When choosing the paint used for coloring the poles, it is important to pay attention that it will meet the requirements of the environmental regulations and the attitude that is must be eco-friendly.