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| **LIVESTOCK** | **FERMENTOR** |
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| The livestock eat the algae. They provide food for local communities. | The still warm sugar palm juice is poured in and yeast is added. The yeast eats the sugar and excretes ethanol. |
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| **DISTILLER** | **ALGAE POND** |
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| The ethanol is extracted from the fermented juice by distilling. The ethanol can then be used for fueling motorbikes, powering light and providing clean cooking fuel for local communities. | The bi product of fermentation is Co2. This is captured in a balloon and fed into an algae pond. The algae is then harvested and fed to animals. |
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| **BIO GAS INSTALLATION** | **RICE FIELD** |
| The manure from the livestock is goes into a biogas installation. Methane gas is produced which is then used as fuel for the distillation process. Wood is used as a back up. | Slurry from the livestock is used as fertilizer for the algae pond and a rice field. The rice foeld filters out the outflow from the Village Hub. |
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| **EVAPORATOR** | **SUGAR** |
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| The palm juice is placed in an evaporator and heated. | Sugar processed and exported around the world. |