

## REGREENING THE DESERT IN PERU'S COASTAL AREAS WITH VETIVER GRASS

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An interesting innovation – The **Irrigation Drill** and **Vetiver Biorope**

by

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*Photo 1. .Biorope - a rope made with biodegradable vetiver straw. Biorope - una cuerda hecha con paja de vetiver biodegradable*



*Photo 2. Biodegradable material that serves as organic fertilizer made by the local community, which eliminates the need for transporting materials long distances. Material biodegradable que sirve como abono orgánico elaborado por la comunidad local, lo que elimina la necesidad de transportar materiales a largas distancias*



Photo 3. Vetiver recently planted in the desert. *Vetiver recién plantado en el desierto*



Photo 4. Recently planted with the biorope visible at the end of the row. *Plantado recientemente con la biorope visible al final de la hilera.*



Photo 5. This vetiver was planted 4 weeks ago on top of the vetiver biorope. *Este vetiver fue plantado hace 4 semanas encima de vetiver biorope*



Photo 6. After 6 weeks the biorope has already decomposed into compost. *Después de 6 semanas, la biorope ya se ha descompuesto en compost.*



Photo 7. This tool penetrates the ground to moisten the soil reaching 1 meter deep. *Esta herramienta penetra en el suelo para humedecer el suelo llegando a 1 metro de profundidad.*



Photo 8. The manual drill with a funnel that deposits water, developed and used by Alois Kennerknecht. *El taladro manual con embudo que deposita el agua, desarrollado y utilizado por Alois Kennerknecht.*



Photo 9. The outlet of water at the bottom of the drill. *La salida de agua en la parte inferior del taladro.*





Figure 10. Two slips planted the same day. On the left with deep irrigation using the specially developed drill. On the right without the use of the drill. *Dos esquejes plantados el mismo día. A la izquierda con riego profundo utilizando el taladro especialmente desarrollado. A la derecha sin el uso del taladro.*



Photo 11 The people are convinced that this method works, and will continue applying it. *La gente está convencida de que este método funciona y lo seguirá aplicando.*



Photo 12 The project continues developing. *El proyecto sigue desarrollándose.*



Photo 13. After 6 weeks this vetiver has grown 80 cm. *15. After 6 weeks this vetiver has grown 80 cm. Después de 6 semanas este vetiver ha crecido 80 cm.*



Photo 14 . A future full of hope, even in the desert. *Un futuro lleno de esperanza, incluso en el desierto.*

## Some other urban applications in Peru



Photo 15. People in the city are continuing to embrace vetiver. *La gente de la ciudad sigue aceptando el vetiver.*



Photo 16. People in the city are continuing to embrace vetiver. *La gente de la ciudad sigue aceptando el vetiver.*



Photo 17. Vetiver is appreciated in residential zones.

*Vetiver esta apreciada en zonas residenciales.*



Photo 18. Vetiver has conquered all the climatic zones and all types of soil including Lake Titicaca. that is 3812 meters above sea level. *El vetiver ha conquistado todas las zonas climáticas y todo tipo de suelo, incluido el lago Titicaca. El lago*