

## SEED BALLS FOR LANDSCAPE SCALE RESTORATION WITH INDIGENOUS PLANTS IN KENYA

Since 2016 [Seedballs Kenya](#) has been developing a simple, low cost & highly efficient method of tree-planting and forest regeneration using indigenous plant species, mostly trees and grass.

Seedballs are made by indigenous plants seeds inside of a ball of charcoal dust mixed with some nutritious binders. The biochar coating of the ball helps protect the seed within from predators such as birds, rodents and insects and extremes of temperature until the rains arrive. Once soaked, the seedball will help retain and prolong a moist environment around the seed to encourage germination.

Seedballs Kenya is a Joint Venture born from the collaboration between [Cookswell Jikos](#) and [Chardust Ltd](#), two companies committed to environmental issues. Together they have researched and developed the Seed-balls method. Chardust is involved with manufacture and Cookswell Jikos is involved with sales, marketing and distribution. All the seeds used to make the Seedballs are certified by the [Kenyan Forestry Research Institute](#) KEFRI as indigenous tree seeds.

[Packs of different sizes](#) are produced for sale, depending on the quantity of seedballs contained and depending on seed size (species). The website informs that since 2016, the company has sold 15,896,000 Seedballs [thanks to the collaboration of this large spectrum of partners](#).

Seedballs Kenya has launched a [campaign to re-green Kenya](#), helping to regenerate forests as the most productive land-based ecosystems essential to life and contributing at the same time to reduce CO2. They are partnering with six organizations implementing conservation programs within the country and ready to use the seedballs for the reforestation of the areas that have the greatest need. The campaign invites a group of international partners to buy the seedballs and donate them to these organizations.

The website presents the main features of Seedballs and the process adopted for the manufacturing and distribution of this high-quality product for forest regeneration:

- 100% Natural and 100% GMO free. [The tree seeds used are all sourced from the Kenya Forestry Seed Center](#) who has a stock of seed of about 220 tree species collected from more than 600 localities around Kenya. Seedballs Kenya uses this provenance data to guide its seed distribution efforts.
- Natural organic seed coating. The process uses salvaged charcoal dust from urban charcoal vending site in Nairobi as





soluble nutritious organic binders to promote successful germination.

- Recycled packaging. Seedballs Kenya supports local small businesses. They source all of paper bags & packaging materials locally and printing is done by a small start-up company in Nairobi.
- Low carbon manufacturing. The manufacturing process is a low-energy and a fossil fuel free one.
- Eco-friendly marketing, focusing on online marketing to reduce use of paper waste.



An important aspect highlighted by [Chardust Ltd. which is responsible for seedball production](#) is its expertise in the use of discarded charcoal waste, a byproduct of the charcoal industry, which itself is a driver of deforestation, with felled trees slow-heated in kilns to produce the popular and inexpensive fuel. This waste is now used by the company to protect and nourish seeds in the seedballs, delivering them to areas that were, in most cases, deforested for fuel production. Furthermore, reintroducing in the seedballs tree species that have been partially or completely removed from their original environments, this practice can help a sustainable reforestation of these areas.



From the point of view of the use of Seedballs for reforestation initiatives conducted by local organizations, NGOs, schools or smallholder farmers, the website summarizes the main advantages:

- Seedballs are inexpensive and Seedballs Kenya focus on reducing the costs for its production.
- Seedballs do not require tilling. Large quantities of Seedballs can be easily dispersed over wide areas that are often hard to reach.
- Biochar coating protects the seed within from predators, such as animals and birds, and extremes of temperatures.
- The coating protects the seed until the first rains and then provides a moist environment to encourage germination. The Biochar coating contains soluble nutritious organic binders that promote successful germination.
- Seedballs can be distributed at any time of year and will wait until the first rains to start germination.
- Direct seeding with Seedballs results in no transplant shock that is often seen when using plastic bags for planting. Seedballs allow long healthy tap roots, unconstricted by plastic bags. Long healthy tap roots produce deeper, more robust plants that are also more drought resistant.
- Seedballs contain indigenous tree & grass seeds, approved & certified by KEFRI that have not been pre-treated in any way.



Seedballs have a slow growth and some seeds germinate only after several raining seasons. Growing trees requires time and perseverance, showing visible results only in the medium term, as point out by their promoters. However, direct seeding helps the young trees grow stronger roots which in turn helps them grow into stronger trees.



Seedballs technology is inspired by ancient methods for revegetation using mud to protect the seeds. This method has been re-proposed by the *Natural Faming* approach theorized by the Japanese natural farmer and philosopher Masanobu Fukuoka, and is used by active groups of the [permaculture movement](#) in different countries of the world. Seedballs Kenya introduces the important innovation to replace the mud with a cheap and abundant coal powder to create the seed wrapper. And above all, it offers a high-quality product already developed with strict ecological rules and easy to use, promoting the participation of a wide range of local and international actors.



The campaign implemented by Seedballs Kenya is recording a great success in the country. Many international organizations and magazines are disseminating articles on the innovative product offered by this joint-venture and on the methods adopted to produce the best results in reforestation activities with the involvement of many local actors.

### **To know more**

[Seedballs Kenya website](#)

[Seedballs Kenya in Facebook](#)

[SeedballsKenya partners](#)

[Re-green Kenya campaign](#)

[Seed Types](#)

[Kenya Forestry Research Institute](#)

[Seedballs in maraelephantproject.org](#)

[Article in globallandscapesforum.org](#)

[Article in afr100.org](#)

[Article in reforestation.me website](#)

[Seed Balls Kenya in unemg.org publication](#)

[Article in Beautiful News website](#)

[Video in weforum.org](#)

[Seedballs in africageographic.com stories](#)

[SeedBalls in permaculturenews.org](#)

[Natural farming in Wikipedia](#)

