

Vegetables4Life

A global vegetable biodiversity initiative for a healthy and resilient future



▮ The urgency

For over 10,000 years, farmers – especially women – have selected and domesticated wild species, resulting in more than 1,400 different vegetables grown and collected today. These vegetable species and varieties, their wild relatives, and pollinators and other associated organisms underpin food systems and contribute to worldwide health and nutrition. This pool of diversity includes species with exceptionally high nutritional values and adapted to harsh environments: it offers an untapped resource to make nutrient-dense foods accessible and affordable to consumers under the challenges of global climate change. This biodiversity, however, is rapidly declining under the pressures of land-use change, environmental degradation and the homogenization of our food systems. Vegetable biodiversity remains poorly conserved, and is largely undocumented. Its loss leads to a narrowing of new food options, and reduced variation for research, breeding and cultivation, undermining the much-needed transformation of our food systems to healthier and more sustainable outcomes.

▮ The response



Vegetables4Life is a 10-year endeavor aiming to rescue and conserve vegetable biodiversity and realize its potential for nutritious diets, improved livelihoods and climate resilience in partnership with farmers, women and youth, civil society, governing bodies, the public and private sector and knowledge institutions.

Vision

A world where vegetable biodiversity is conserved and sustainably used, benefiting current and future generations through a global collective effort.

Objectives

Rescue vegetable biodiversity through collaborative actions

Conserve and share vegetable biodiversity to explore new options

Use vegetable biodiversity to improve diets, livelihoods and climate resilience

The approach

Vegetables4Life will rescue, conserve, and use seeds from more than **100 climate-resilient and nutrient-dense vegetables in 20 global hotspots** in partnership with key stakeholders at local, national and international level. In each of the 20 vegetable biodiversity hotspots, *Vegetables4Life* will follow a three-pronged approach.

Rescue



Collect and regenerate the diversity of local varieties and crop wild relatives of prioritized vegetable crops.

Conserve

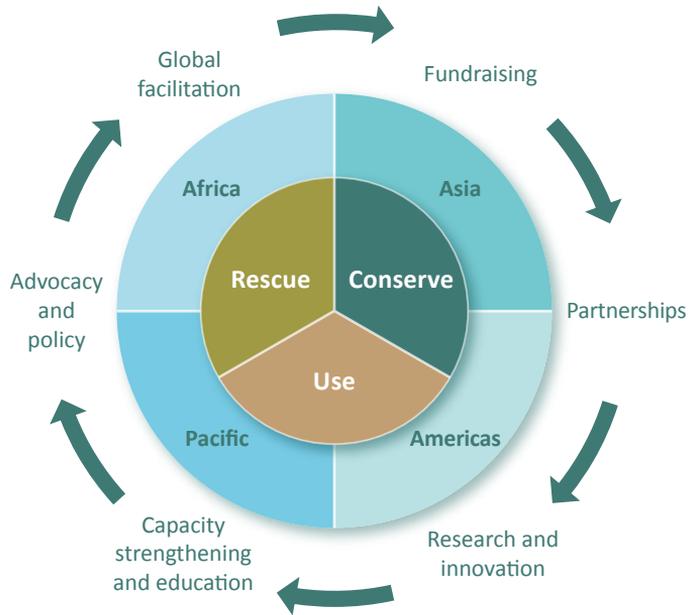


Secure vegetable biodiversity and make it available locally and globally.

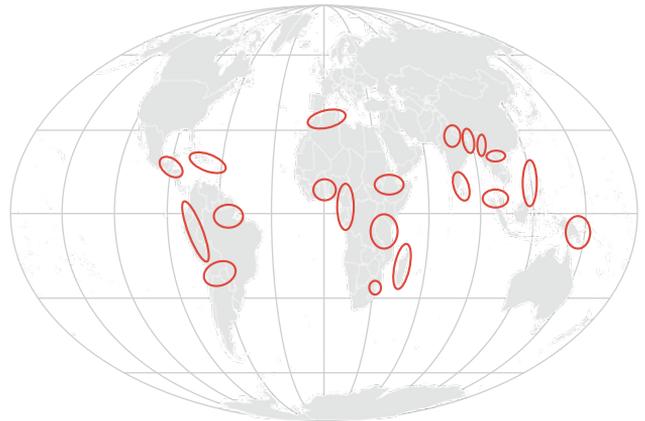
Use



Improve diets, particularly among vulnerable children, by integrating vegetable biodiversity into farming systems, value chains and school and home meals.



Vegetables4Life's three-pronged approach in 20 hotspots across four regions, supported by six accelerators to drive action.



20 hotspots of vegetable biodiversity with climate-resilient and nutrient-dense vegetable varieties and wild relatives.



A global partnership to accelerate action

Global facilitation:

WorldVeg will lead development and implementation, in partnership with international organizations and key regional and national stakeholders, ensuring global collaboration and local relevance.

Fundraising:

Funders are invited to support *Vegetables4Life* through the Power of Diversity Funding Facility managed by the Crop Trust with additional funding sources and in-kind contributions to strengthen and expand impact.

Partnerships:

Vegetables4Life will work with governmental bodies, farmers, women and youth, civil society, the public and private sector, knowledge institutions and others within the 20 hotspots to foster collective action, empower communities and ensure sustainable impact.



Research and innovation:

Vegetables4Life will conduct research and stimulate innovation towards enhanced demand for and supply of climate-resilient and nutrient-dense vegetables in farming systems and diets.

Capacity strengthening and education:

Connections between users of vegetable biodiversity will be strengthened, with a focus on integrating vegetables in school gardens and feeding programs, and adding biodiversity education to high school and university curriculums.

Advocacy and policy:

Vegetables4Life will advocate for the inclusion of vegetable biodiversity in national and international policies and regulations and stimulate collective action linking biodiversity, agriculture and health.

The investment

US\$1.5 million per hotspot per year, for vegetable biodiversity rescue (US\$350k), conservation (US\$500k), and use (US\$650k), or **US\$30 million per year in total**, over **10 years** through the Power of Diversity Funding Facility managed by the Crop Trust and additional sources.



The impact

Economic impact:

Based on an overall investment of US\$300 million, benefits from increased vegetable productivity for farmers are estimated at US\$6 billion over the 10 years, i.e. US\$20 for every dollar invested, and that is expected to grow beyond the 10-year framework.

Health and social impact:

A healthier diet reduces healthcare costs and fewer non-communicable diseases. Healthier children miss fewer school days, perform better academically, and are better prepared to contribute to their societies. Increased rural employment can reduce migration and foster well being at individual, community and national levels.

Environmental impact:

Investing in vegetable biodiversity can help to restore ecosystems, reduce carbon footprints, and support sustainable farming that preserves natural resources for future generations. It enables everyone to incorporate resilient and nutritious vegetables into diverse farming systems and diets to benefit planetary health.

Timeline

2021

WorldVeg, Crop Trust and others call for urgent action to secure vegetable biodiversity at the UN Food Systems Summit in New York.

2022

WorldVeg and partners collect seeds of 17,000 vegetable varieties and wild relatives from four hotspots of vegetable biodiversity in sub-Saharan Africa. This seed is made available to researchers and farmers in Africa and around the world. A highly participatory *Rescue – Conserve – Use* approach allows to secure and conserve vegetable biodiversity and use it to improve the diets of children through school meal programs and consumers through marketing and value chain development.

2024

MAR

WorldVeg opens Africa's Vegetable Genebank in Tanzania. This facility allows safeguarding and long-term seed storage of vegetable landraces and wild relatives. The collection is backed up at the Svalbard Global Seed Vault.

APR

The African Union endorses the African Vegetable Biodiversity Rescue Plan aiming to rescue, conserve and use vegetable biodiversity in a minimum of seven hotspots of vegetable biodiversity in Africa.

SEP

Launch of the African Vegetable Biodiversity Rescue Plan at the African Food Systems Forum in Kigali, Rwanda.

NOV

WorldVeg sends seeds of over 2,000 landraces collected 25 years ago home: to the Philippines, Thailand, Vietnam and Malaysia.

DEC

Biodiversity experts from Southeast Asia meet in Taiwan to develop a 10-year roadmap to rescue, conserve and use vegetable biodiversity in Southeast Asia.

2025

MAR

Global experts convene at the Rockefeller Foundation Bellagio Center in Italy and call for the establishment of a global vegetable biodiversity initiative linking biodiversity, agriculture and health.

NOV

Launch of the global vegetable biodiversity initiative (*Vegetables4Life*) at the Global Crop Diversity Day in Lima, Peru, ahead of the 11th session of the Governing Body of the FAO Plant Treaty.

2026

JAN

Start of *Vegetables4Life* activities.

Disappearing wild chillies



A striking example of vegetable biodiversity decline are wild chillies. Of around 37 species in Latin America, half are endangered or at high risk, with many confined to fragmented tropical dry forests and cloud forests, which are rapidly being lost. Some, like the elusive wild Galapagos pepper, hybridize with domesticated varieties, threatening pure wild populations. Other wild peppers, such as chile piquin in Mexico and ulupicas and arivivis in Bolivia, are integral to local cuisines but face pressure from destructive harvesting. And *Capsicum lanceolatum* in Guatemala is found in protected areas for birds like the resplendent quetzal, but is neglected by park managers. Urgent actions are needed to rescue and conserve the remaining populations of wild chillies.

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