



GlobalHort

An international consortium
promoting innovation in horticulture for development
with a multi-sector and multiple-actor approach

Horticulture for Sustainable Development and Global Food Security

Hannah Jaenicke and Detlef Virchow



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The global challenge

Today

Micronutrient
deficiency

**Two billion
micronutrient-deficient people**



Undernourishment

**805 million
chronically energy-protein
undernourished people**

Overconsumption

**One billion
overweight or obese
people**

Low income

**1.2 billion
people living on less than \$1.25**

The global challenge

By 2050

- 9 billion people;
- Reduced land available for food production;
- Reduced soil fertility;
- Water scarcity;
- Increased number of natural disasters;
- More water and land pollution;
- ...

Daunting scenarios !

A global initiative

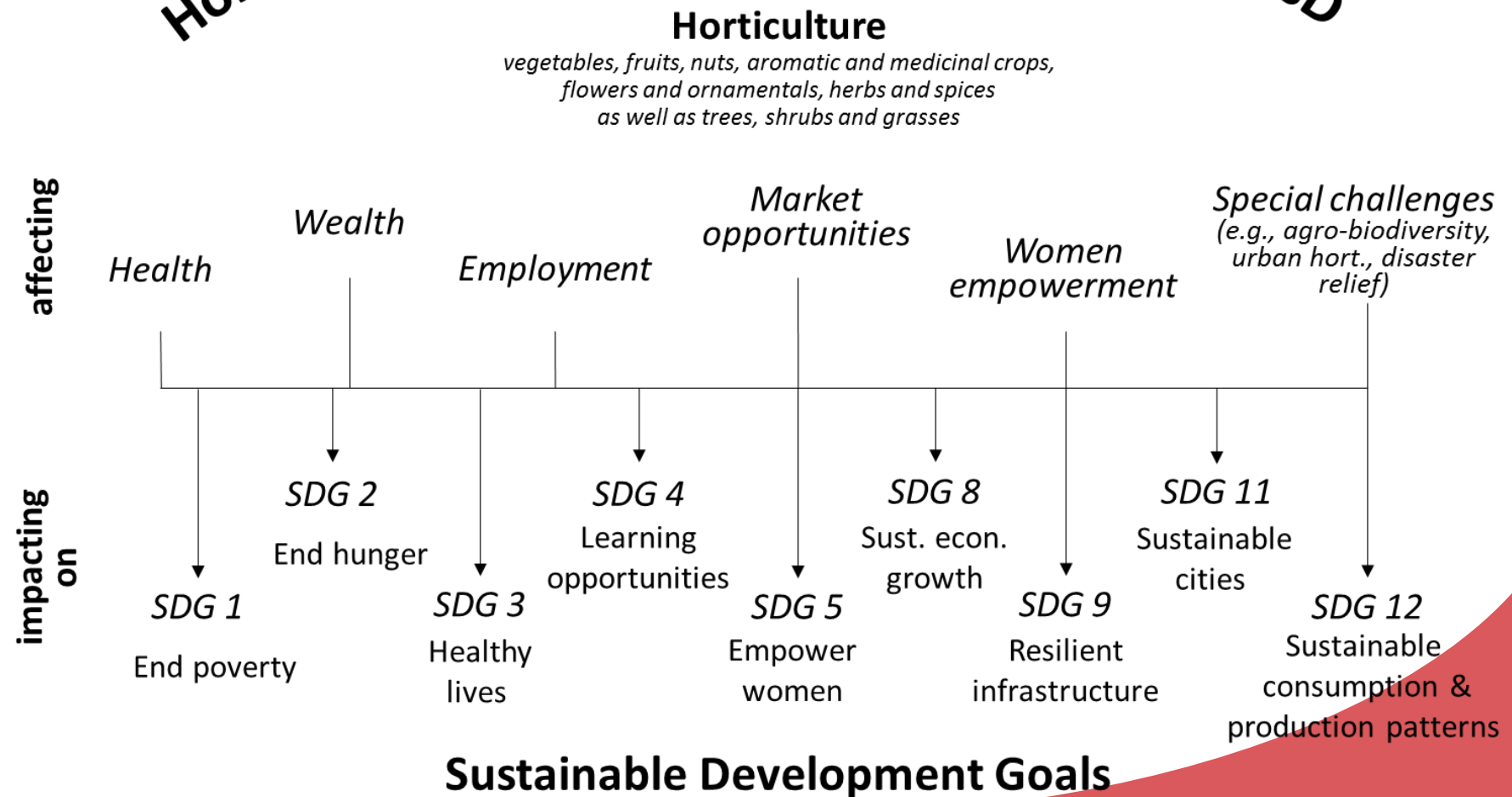
The Sustainable Development Goals (SDGs)



Horticulture:

opportunity & engine for sustainable development!

Horticulture for sustainable development – H4sD



Horticulture guarantees food security & health



- At least one billion people suffer from debilitating micronutrient deficiencies (**hidden hunger**) that can be addressed with a balanced diet including fruits and vegetables
- The international AR4D community's strong focus on staple crops agriculture has not paid sufficient attention to the issue of hidden hunger
- **Crop and diet diversification** is a more sustainable approach to addressing hidden hunger than bio-fortification of staple crops
- Horticulture for Health agenda must consider issues around availability, affordability, utilization and safety of fresh fruits and vegetables
- **Food Safety** needs to be taken seriously.



Horticulture fosters new market opportunities



- Through the production of horticultural crops **smallholders** can break away from subsistence farming
- Smallholder horticulture is a powerful tool for **alleviating rural poverty** → frees people from absolute poverty
- But is also important for **peri-urban and urban areas!**
- The international agricultural research for development community continues to focus on staple crops to reduce hunger and improve food security
- Growing a high value but perishable crop demands some pre-consideration about **marketing**
- Horticulture opens the door to **entrepreneurship**

Horticulture creates employment

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- Producing horticultural crops makes excellent use of **family labor**.
- Farmers engaged in horticultural production are mostly **linked to markets**.
- When coupled with operations like washing, grading, packaging, storing, transporting and further processing, **employment opportunities** are greatly multiplied.
- Horticulture can **sustain rural communities** and reduce migration by creating jobs in rural areas.
- Success with horticulture enterprise depends on the availability of the supplies and services provided by **agribusiness**. These businesses also generate employment.
- Usually: 80-90% is produced for the **local or national market**
10-20% for export

Farmers selling in markets (%)

	Vegetables	Rice
Bangladesh	96	19
Cambodia	99	11
Lao PDR	99	23
Tanzania	88	37

Source: Weinberger and Lumpkin, 2005

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Horticulture empowers women

- The production, handling and marketing of horticultural crops provides **safe and rewarding work** for women and girls.



- Money earned from horticulture improves **family incomes**, often permitting the **education** of girls.
- Women can become **entrepreneurs**.



Horticulture protects & enriches agro-biodiversity

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- The **pool of plant genetic resources** used by horticulture is by far the largest within plant agriculture. That pool continues to grow.
- Horticulture provides thousands of **options for diversifying** smallholder agriculture to develop new markets, spread risk, and adapt to new realities associated with climate change.
- Many **indigenous species and landraces** have potential as horticultural crops but are at risk of being lost. Their survival can be secured by incorporating them in production systems.
- e.g.: World Vegetable Center-Genebank:
 - > 60.000 accessions
 - of 436 species from 156 countries



Horticulture for sustainable development!

Horticulture for sustainable development – H4sd



1. HORTICULTURE GUARANTEES HEALTH: “hidden hunger” can be addressed with a balanced diet including fruits and vegetables
2. HORTICULTURE CREATES WEALTH: Smallholder horticulture is a powerful tool for *alleviating rural poverty*
3. HORTICULTURE CREATES EMPLOYMENT AND MARKET OPPORTUNITIES: production → processing → marketing → employment & market opportunities are greatly multiplied
4. HORTICULTURE EMPOWERS WOMEN: women can become entrepreneurs & income earners (e.g., education of girls)
5. HORTICULTURE CONSERVES AND ENRICHES AGRO-BIODIVERSITY: conservation of natural genetic resources through utilization the large diversity of plant genetic resources continues to grow

This is theory & also evidence,
but still...

Limiting factors for successful H4sD

- **Education & Training** (production, processing, marketing);
- Access to affordable **extension services**;
- **Knowledge** of „Food Safety“ aspects;
- **Market access** (incl. access to credits & insurance systems);
- **Infrastructure** (roads, cool chains, etc.);
- Requirements of **quality & quantity** of (super-) markets;
- **Land tenure**;
- **Inputs** (seed, fertilizer, pesticides, micro-irrigation);
- **Adapted technologies** (locally adapted, sustainable and productivity increasing).

Institutional constraints limiting the benefits of horticulture

- Lack of financial resources and **commitment for R&D** in horticulture.
 - Lack of **adequate innovation** generation and **dissemination** systems - e.g.,
 - missing well functioning networks of researchers (and multipliers) for “H4sD”;
 - missing links between:
 - “high-science” R&D
(high-income countries and “islands” in low-income countries);
 - “robust” R&D
(for the poor, small-scale farms in low-income countries).
 - Lack of **enabling environment**, esp. social, economic, and political awareness and commitment.
- **Constraints stimulated horticulture experts to establish GlobalHort as a consortium to overcome these constraints.**

The Mission of GlobalHort

To improve human **health** and **wellbeing** and to create **employment** and **wealth** through increased:

- production,
- processing,
- marketing, and
- consumption

of fruits and vegetables and other horticultural crops

with a special focus on

smallholder farmers and **poor households**.

1. ADVOCATING

...for horticulture for sustainable development and greater support for H4sD initiatives worldwide

2. NETWORKING

...connecting and informing the diverse and dispersed H4sD community of actors

3. SUPPORTING RESEARCH

...that aims at improving smallholder horticulture and H4sD as well as instigating and coaching applied research projects - always in partnership with other organizations

4. FACILITATING CAPACITY DEVELOPMENT

...education and training to foster the implementation of R&D results concerning H4sD

An amplifier to promote H4sD

Advocating for horticulture for sustainable development and greater support for H4sD initiatives worldwide – e.g.:

- **Promoting programs** for improving productivity, profitability, safety and sustainability of horticultural crop production in low-income countries;
- **Advertising and supporting** horticultural events in the field of H4sD and low-income countries;
- **Lobbying** for new funding opportunities and resources for horticulture;
- **Interfacing** with other initiatives to strengthen human health and horticultural sciences;
- **Stimulating and promoting** the creation of new and sustainable economic opportunities for small-scale farmers and landless laborers in low-income countries.

GlobalHort: A bridge to overcome the world's fragmented community of H4sD actors

Networking, connecting and informing the diverse and dispersed community of H4sD professionals – e.g.:

- Set-up, maintenance and animation of a **virtual portal** of H4sD subjects in research and development;
- Stimulating existing and encouraging new **networks** related to H4sD;
- Fostering linkages between **horticultural R&D actors** in high- and low-income countries;
- Fostering linkages between **horticulture and other relevant communities** such as health;
- Establishment of partnerships and agreements with database owners and information providers for free or low-cost access to scientific and technical information for partners from low-income countries.

A market place for generating and sharing innovation

Supporting research that aims at improving smallholder horticulture and H4sD as well as instigating and coaching applied research projects – always in partnership with other organizations – e.g.:

- Facilitating, hosting and managing **research projects** on horticulture;
- Encouraging pooling of partners and facilitating **proposal** writing;
- Stimulating, fostering and guiding additional horticultural research on neglected topics, or **topics** relevant to international development.

A knowledge transformation center

Facilitating capacity development, education and training to foster the implementation of R&D results concerning H4sD, thereby supporting smallholders investing in horticultural production, processing and trading – e.g.:

- Increasing **awareness** of the importance of horticultural R&D at all levels of education (primary to tertiary education);
- Establishing linkages and partnerships with **higher educational institutes** to promote training and capacity building;
- Stimulating and partly organizing training sessions with skilled and experienced partners in low-income countries;
- Stimulating and co-organizing e-learning programs with partners;
- Stimulating and co-organizing **workshops and seminars for policy makers** and private sector actors (in particular retailers and distributors) to better implicate these partners in the horticultural sector.

Primary focus on:

- Sub-Saharan Africa
- South Asia

Secondary focus on:

- Southeast Asia
- Central Asia
- Latin America

Linking up with activities from:

- Europe
- North America
- Australia

Thank you for your attention !

www.globalhort.org

POLICY Brief No. 1



Horticulture for sustainable development: How horticulture contributes to the Sustainable Development Goals

As the world population is projected to reach 9 billion by the year 2050 and pressures such as changing weather patterns, increasing water scarcity, loss of soil fertility and productive land are limiting the options to increase food production in an environmentally and socially sustainable way, there are increasing calls for novel approaches to sustainable development. The UN Sustainable Development Goals (SDGs) are one approach to focus global efforts. Thanks to direct and indirect benefits of production, processing, marketing and consumption of horticultural crops, horticulture can make a significant contribution to the achievement of several of the SDGs. These diverse benefits are captured in the concept of 'Horticulture for sustainable development - H4sd'.



Horticultural activities pave the way for the integration of subsistence farmers, the landless and other resource-poor people once excluded from markets into broader economic activities, and thus play a significant role in sustaining rural communities and improving the living conditions of the poor. In addition, fruits and vegetables play a pivotal role in any approach to fight the threats of hunger, micronutrient deficiency and over nourishment and hence contribute to better health. Because horticultural products are generally high-value crops, they directly create wealth via higher incomes due to higher market

prices compared to staples. In addition, processing, trading and other elements of the value chain for horticultural crops create comparatively more employment and open additional new market opportunities than can be realized with staple crops. Moreover, horticulture has positive impacts on the empowerment of women and contributes to the protection and enrichment of agro-biodiversity and livable cities.