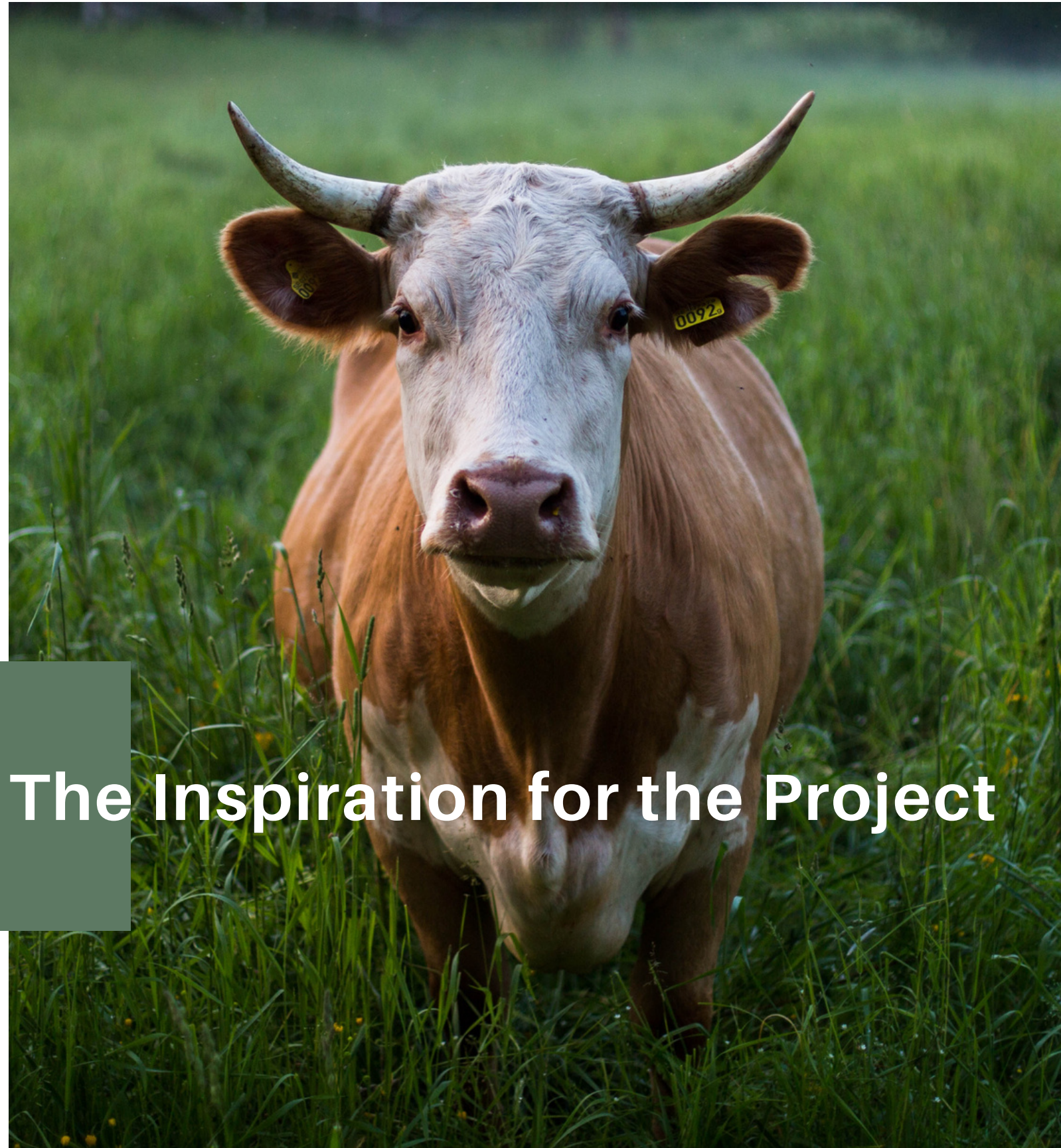


PRESENTED BY DOMINIQUE MARENDY

Harvesting Solutions: Examining the Relationship between Population Growth and Sustainable Food Systems

A Research Project Completed as part of
the Mercy Global Action Emerging
Leaders Fellowship





The Inspiration for the Project

Sprouting the Foundation

An animal health scientist
who is passionate about
using facts to give hope and
inspiration

Compassion fatigue is made worse by the catastrophised image of the world we are shown

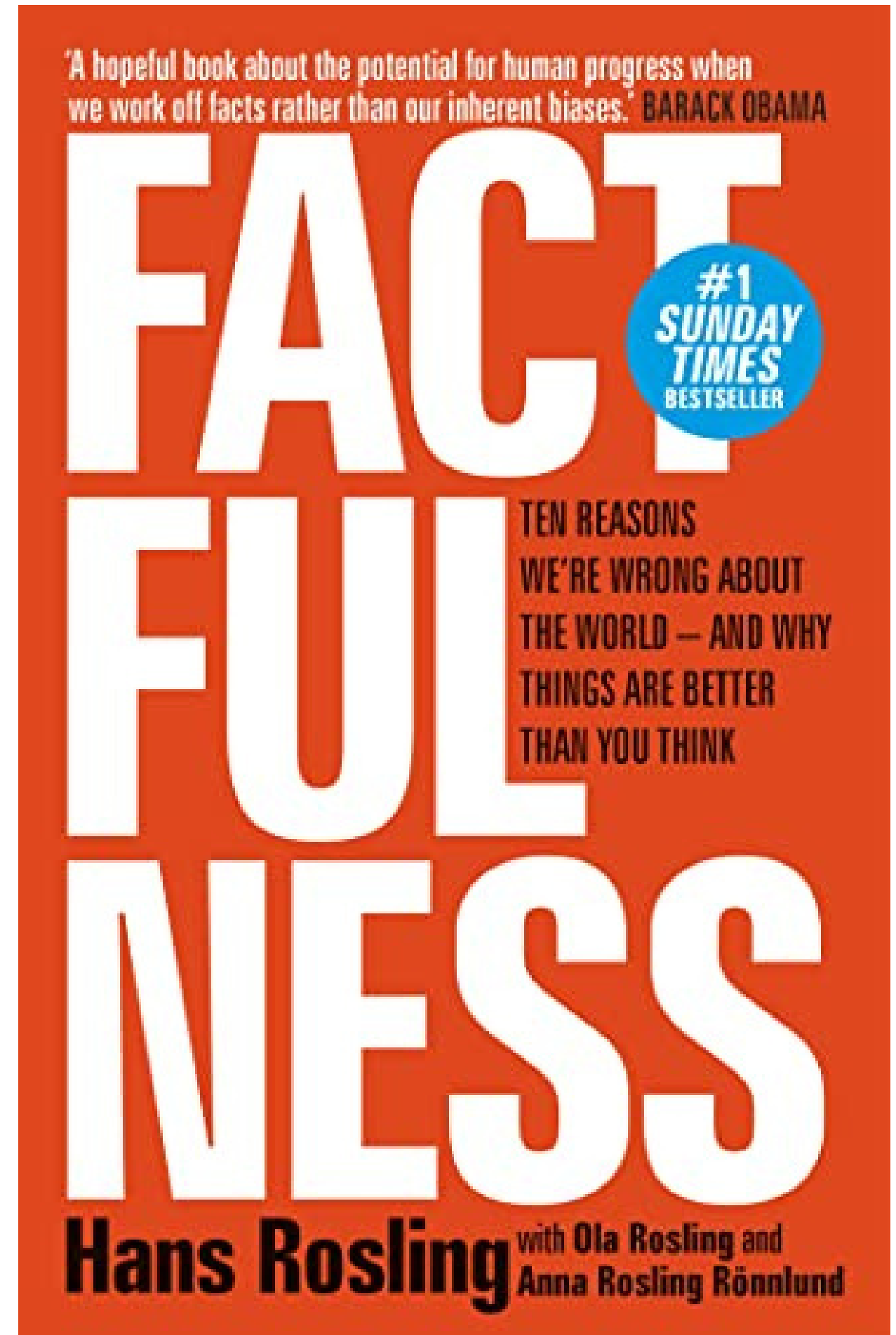
Distinct Voice: Presence to Earth

Dominique Marendy (Parramatta)

To be called to the community of Mercy is to live a life lead by a deep compassion for the world around you. Many of us champion many causes. Inundated daily with images of the world around us and plights calling to be heard. The ready access to information provided by the ever-advancing technologies of this world can make these many plights



**MERCY
GLOBAL
PRESENCE**





"The simplest and most practical lesson I know...is to resolve to be good today, but better tomorrow. "

Catherine McAuley

The Balancing Act

Between Population Growth
and food sustainability





USE FACTS TO EMPOWER

Use data driven facts to help people feel change is possible



TO ALLOW PEOPLE TO ACT IN A WAY THAT IS AUTHENTIC TO THEM

This project isn't designed to tell you how to live



ENSURE PEOPLE FEEL REPRESENTED

Highlight the great work people are doing all over the world in this space

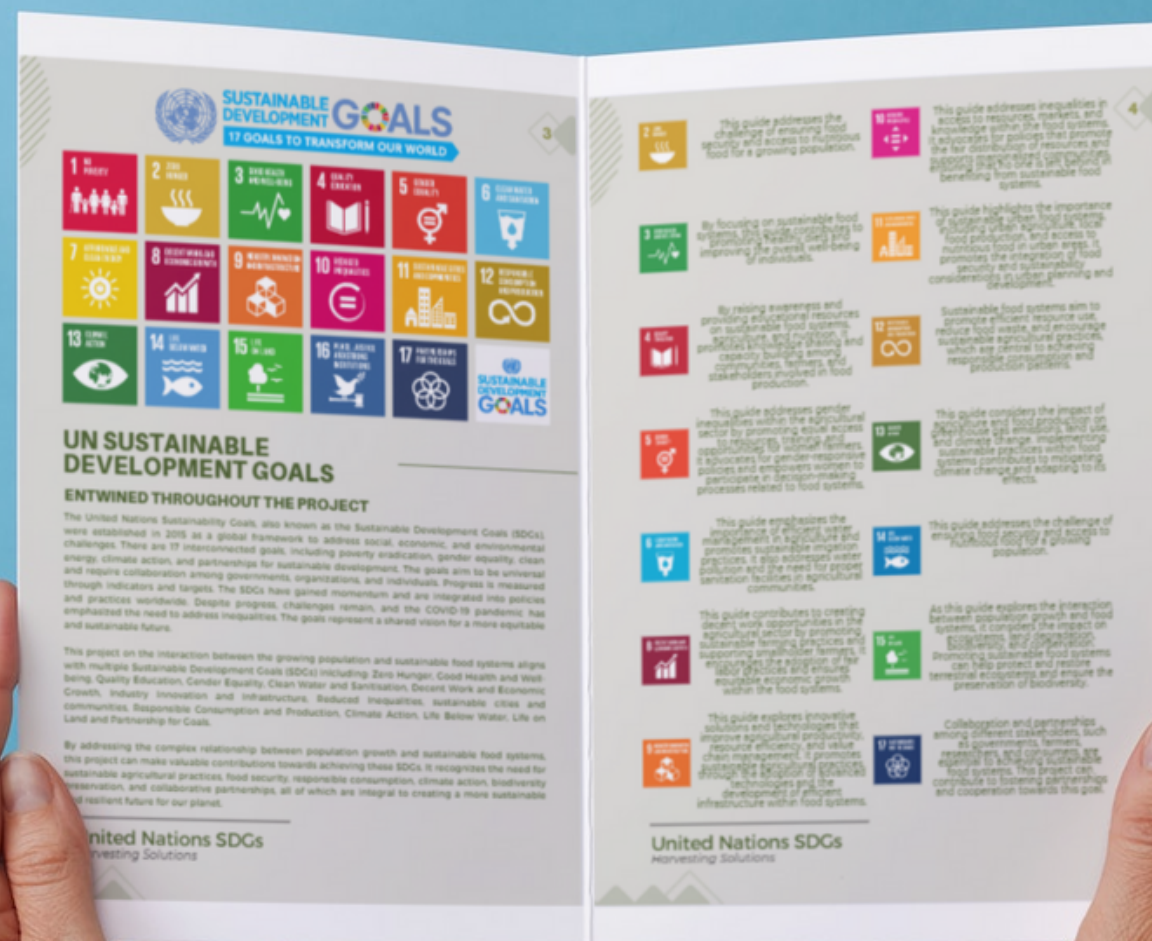
AIMS



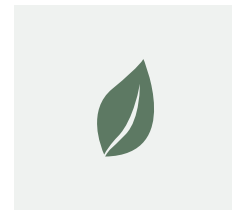
THE GUIDE



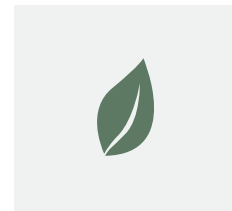
UN SDGS



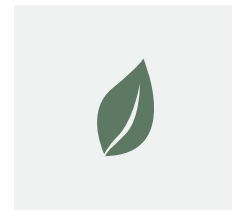
Blooming Numbers: Understanding Population Growth



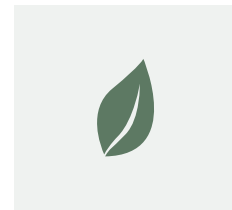
Population Growth Rate is Declining



Population growth is often not a result of more babies being born



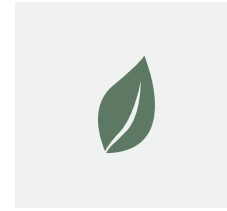
Better Health Care, improved living conditions and reduced infant mortality



Education of women



Blooming Numbers: Understanding Population Growth



It varies by region



A photograph of a beach with plastic waste floating in the water. The water is dark and choppy, with several pieces of trash visible, including a white plastic bag, a blue and white can, and other debris. The beach is visible in the background, with some rocks and sand.

Growth and Nourishment Entwined:

CHALLENGES

Food Security

Resource Security

Urbanisation and Infrastructure

Environmental Impact

Health and Social Issues

The background of the slide is a photograph of the ocean with significant plastic pollution. In the upper left, the water is relatively clear with some small debris. In the lower half, the water is filled with various pieces of trash, including a large white plastic bag, a blue and white can, and other unidentifiable pieces of plastic and debris. The overall tone is somber and highlights the environmental impact of growth.

Growth and Nourishment Entwined:

OPPORTUNITIES

Economic Growth

Cultural Diversity and Exchange

Innovation and Technological
Advancement

Social Progress and Development

Seeds of Demand





Seeds of Demand



Increased Food Requirements



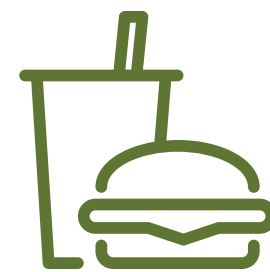
Environmental Impacts



Changing Dietary Patterns



**Agricultural
Intensification and
Technological
Innovations**



Urbanisation and Dietary Shifts



**Hidden Hunger: Nutrient
Deficient Diets**



Food Security Concerns



Cultivating A Greener Plate

Defining Sustainable Food Systems

"a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised. "

**Food and Agricultural Organisation
of the United Nations**

Key Principles



Environmental Stewardship



Social Equality



Economic Viability



Health and Nutrition



Resilience and Adaptability



Collaboration and Knowledge Sharing





Sustainable Food Production



Agroforestry

Carbon Farming



Permaculture

Hydroponics and
Aquaponics



Reduced Food Waste



Sustainable Food Production



Agroforestry

"integrates the cultivation of trees with crops, livestock, or both, on the same piece of land. It is a sustainable agricultural practice that offers a range of benefits"



Sustainable Food Production



Agroforestry

Pros of Agroforestry:

1. Biodiversity and habitat preservation:
2. Soil health improvement:
3. Carbon sequestration and climate change mitigation
4. Diverse products and income streams
5. Microclimate regulation



Sustainable Food Production



Agroforestry

Cons of Agroforestry:

1. Management complexity
2. Initial investment and time
3. Market challenges:



Sustainable Food Production



Agroforestry

Best Uses of Agroforestry:

1. Marginal or degraded lands
2. Small-scale farming
3. Watershed and conservation areas
4. Climate-vulnerable regions



WHAT CAN YOU DO?

What changes can you make as an individual in your day to day life to ensure we can feed the world sustainably



WHAT CAN YOUR COMMUNITY DO?

What can communities do to ensure equity in access to nutrition



WHAT CAN YOU ASK YOUR GOVERNMENT TO DO?

What legislative and policy changes are required to ensure sustainable food supply



PLANTING SEEDS
OF ACTION:
CULTIVATING
CHANGE AT EVERY
LEVEL



WHAT CAN YOU DO?

- Practice sustainable consumption
- Grow your own food
- Support sustainable farming



WHAT CAN YOUR COMMUNITY DO?

- Establish community Gardens
- Implement food rescue programs
- Promote sustainable food education



WHAT CAN GOVERNMENTS DO?

- Sustainable agriculture policy
- Invest in R&D
- Establish food waste reduction targets

PLANTING SEEDS
OF ACTION:
CULTIVATING
CHANGE AT EVERY
LEVEL



Seeing yourself in the Picture



Seeing yourself in the Picture

Sherri Mitchell

born and raised
on the
Penobscot
Indian
reservation

LAND PEACE FOUNDATION

an organization dedicated to the global protection of Indigenous land and water rights and the preservation of the Indigenous way of life.



Camille Goldstone-

Henry

proud Kamilaroi
woman

XYLO SYSTEMS

a cloud-based, data and AI platform that supports those conserving and impacting biodiversity to measure and manage impact.





Key Takeaways

Harvesting Insights

Making sure this guide sprouts a conversation

How do I ensure people are using this?

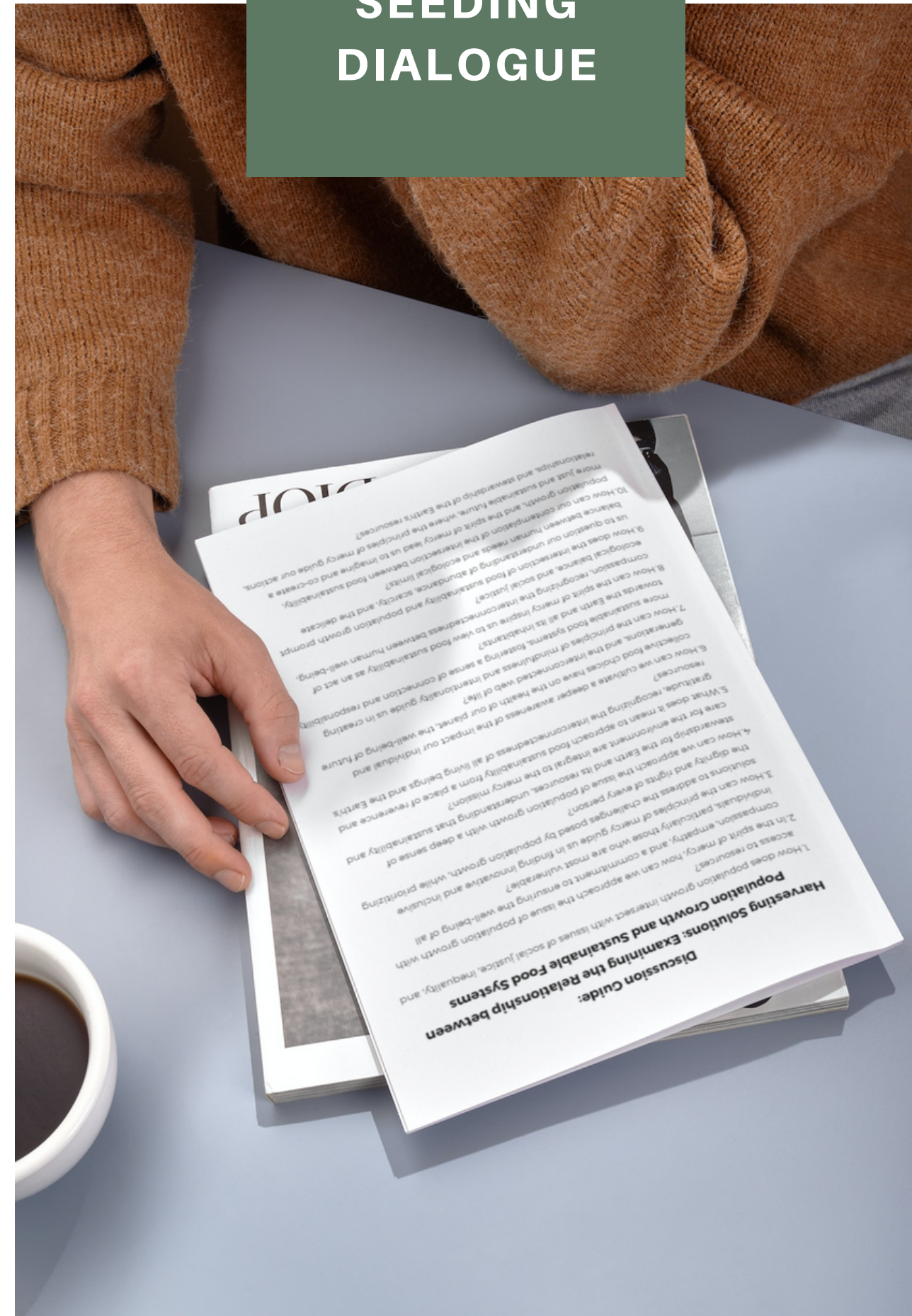
Creating a Theological Discussion

Discussion guides for schools or interest groups exploring the theology

Creating a fact based discussion

Discussion guide for schools or interest groups for geography, science or social sciences

SEEDING DIALOGUE



Thank you

