“No problem can be solved with the same consciousness that created it.”

*Albert Einstein*

“It is difficult to get a man to understand something when his job depends on not understanding it”

*Upton Sinclair*
Ideation: Seeing the World Through the Eyes of a SDG
The Life of a SDG

1. No Poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation, and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Consumption and Production
13. Climate Action
14. Life Below Water
15. Life on Land
16. Peace, Justice, and Strong Institutions
17. Partnerships for the Goals
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The Life of a SDG
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Do I understand the challenge?

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The Life of a SDG

Do I understand the challenge?

What should I do?

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The Life of a SDG

What do I need to learn?

Do I understand the challenge?

What should I do?
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Do I understand the challenge?

Who can help me?

What do I need to learn?

What should I do?
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Do I understand the challenge?

Who can help me?

What do I need to learn?

Who is going to be impacted?

What should I do?

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The Life of a SDG

Do I understand the challenge?

Am I doing the right things?

Who can help me?

Who is going to be impacted?

What should I do?

What do I need to learn?
Facilitating Change
A platform for all stakeholders for
- co-design,
- co-creation, and
- co-usage
of practice-relevant knowledge...
Facilitating Change

A platform for all stakeholders for - co-design, -co-creation, and - co-usage of practice-relevant knowledge ...
The Life of a SDG

“Wizard Clairvoyant”
Exploring the Future with Simulations

Jules-Plag and Plag, 2016
The Life of a SDG

“Wizard Clairvoyant”
Exploring the Future with Simulations

Transformation Scientists

Scientific knowledge

I have a goal

Options

Jules-Plag and Plag, 2016
Assessing Interactions and Interdependencies

In TARGET; not addressed in INDICATOR
Create sound policy frameworks at the national, regional and international levels, based on peer and gender-sensitive development strategies, to support actions

Policy to support subsistence farming
Better Institutional Support

In TARGET; not addressed in INDICATOR
By 2020, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

Policy to support subsistence farming
Better Institutional Support

In TARGET; not addressed in INDICATOR
By 2020, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

Policy to support women
Better Social Support

In TARGET; not addressed in INDICATOR
Percentage of population in a given age group achieving a set level of proficiency in mathematics and reading comprehension, disaggregated by sex, location, wealth (and other where data are available)

Better Financial Management
Better Farming Methods

Percentage of countries where the legal framework (including customary law) guarantees women’s equal rights to land ownership and/or control

Access to Land
Rights to Land

Percentage of small-scale industries with a loan or line of credit

Access to Financing
Better Farming Methods

In TARGET; not addressed in INDICATOR
Ensure equal opportunities and reduce inequalities of outcomes, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

Laws for Women’s Rights to Land
Better Institutional Support

In TARGET; not addressed in INDICATOR
Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

Environment impacts the Farming
Better Farming Methods

In TARGET; not addressed in INDICATOR
By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and rivers, in line with obligations under international agreements

How Farming impacts the Environment
Better Farming Methods

In TARGET; not addressed in INDICATOR
Promote the rule of law at the national and international levels and ensure equal access to justice for all

Laws for Women’s Rights to Land
Impact site selection
Better Farming Methods

Jules-Plag and Plag, 2016
Assessing Interactions and Interdependencies

In TARGET, not addressed in INDICATOR

By 2030, and the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases.

Policies to support safety
Better Construction Methods

Percentage of population in a given age group reaching at least a fixed level of proficiency in functional literacy and/or numeracy skills, disaggregated by sex, location, wealth (and others where data are available).

Better Construction Methods
Better Sustainable Practices

In TARGET, not addressed in INDICATOR

By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

Policies to support inclusion
Better Institutional Support

Ensure equal opportunity and reduce inequalities of outcomes, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.

Policies to support access
Better Institutional Support

Proportion of urban population living in slums, informal settlements or inadequate housing.

Policies to support equality
Better Institutional Support

Number of deaths, ranking people, injured, relocated or evacuated due to disasters per 100,000 people.

Better Construction Methods

Percentage of cities that are implementing risk reduction and resilience strategies aligned with accepted international frameworks (such as the successor to the Hyogo Framework for Action 2005 - 2015 on disaster risk reduction that include vulnerable and marginalized groups in their design, implementation and monitoring).

Better Construction Methods
Better Sustainable Practices

Percentage of financial support that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings.

Policies to support sustainability
Better Sustainable Practices
Better Construction Methods

Number of deaths, ranking people, injured, relocated or evacuated due to disasters per 100,000 people.

Better Construction Methods

In TARGET, not addressed in INDICATOR

Integrate climate change measures into national policies, strategies and planning.

Policies to support reduced vulnerability
Better Construction Methods
Better Sustainable Practices

Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula.

Policies to support sustainability
Better Sustainable Practices
Better Construction Methods
Better Sustainable Practices

Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities.

Policies to support sustainable conditions
Better Planning Methods

Jules-Plag and Plag, 2016
Assessing Interactions and Interdependencies

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.
2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.
Session Goals

Normative ethics:
- Duty not to contribute to harm - not to contribute to massive, systemic harm
- Duty to justice
- Obligation to our children’s future
Session Goals

- Identify interactions and interdependencies: Examples
- Develop approach to assess interdependencies: Nexus approach? System of Systems approach?
- Discuss tools to aid policy development across departmental boundaries: Agent-Based Models? GeoDesign? Wizard Clairvoyant?
- Separation of mind-independent and mind-dependent parts of sustainability:
  - real-world system properties versus
    - human ethics, values, rules, principles and models:
  - we can’t change the real-world response to our actions, but we can change the way we are in the world.
- Address discrepancy between normative and descriptive ethics:

Normative ethics:
- Duty not to contribute to harm - not to contribute to massive, systemic harm
- Duty to justice
- Obligation to our children’s future