**Theory of Change (ToC)**

**Design Guidance Document**

**Proposal Stage**

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# Introduction

The CGIAR Performance and Results Management Framework is built on the understanding that CGIAR research and supporting activities (e.g. capacity building; networking) contribute to impact within systems, in combination with other actors and processes. Strategic research Initiative planning and design need to determine priority research questions in light of political and other practical considerations. Initiative delivery needs to consider who will use research outputs and how, and what the Initiative can do through its Work Packages (WPs) to facilitate and advance the use and the influence of its research. And Initiative managers and researchers themselves need tools to monitor and evaluate progress and learn from experience. Theory of Change (ToC) modelling provides a systematic framework for Initiative design, monitoring and evaluation. This guidance note begins with an overview of ToC concepts and elements as they are used in OneCGIAR. It then discusses the process and provides suggestions on how to develop ToCs at different scales, and concludes with an overview of how ToCs will be evaluated. A glossary of terms is provided as Appendix A. Appendix B provides a set of facilitating questions for developing a ToC, with emphasis on the WP level. Appendix C provides a standardized template for OneCGIAR ToCs.

# What is a ToC

A ToC is an “explicit, testable model of how and why change is expected to happen along an impact pathway in a particular context. A basic research-for-development (R4D) ToC identifies the context and key actors in a system and specifies the causal pathways and mechanisms by which the research aims to contribute to outcomes and impacts.” (MELCOP, 2019). It is the explicit articulation of this change process, from activities and outputs through to desired outcomes and impacts, that is the hallmark of a ToC.

A ToC is typically presented as a diagram and/or as a narrative description. OneCGIAR uses both to capture and communicate the key ideas as completely as possible. A ToC diagram takes the form of a flow chart with boxes to illustrate the key steps in the change process and arrows to show the causal linkages between activities, outputs, outcomes and impacts. The narrative and the diagram complement one another. The ToC narrative provides a more complete description of the context, assumptions and causal logic, and provides space for more detail and nuance. It explains what the Initiative/WP will do, who it will work with, and how that is expected to lead to the intended outcomes and, ultimately, impacts. Presenting the ToC in story form helps bring it to life, and thinking about the TOC in a different way may help identify gaps or flaws in the logic. Some readers will more easily digest one form or the other.

# Why Develop and Use a ToC?

The process of developing a ToC is intended to support and document an Initiative’s change strategy. It encourages research design teams, research managers, and researchers to analyze and plan how the work they do, and the outputs they produce, will inform, support, guide and otherwise influence other system actors and processes, and how the resulting actions and processes will contribute to the intended impact. The process:

* Supports system-level strategic planning;
* Encourages critical thinking, integration, and collective visioning among team members and partners;
* Facilitates co-ownership of the research process;
* Supports transparency and accountability to results;
* Helps identify and engage key actors at program boundaries; and
* Builds appreciation and understanding of the diverse roles required in change processes.

When used *ex ante*, a ToC provides a framework and guide for initiative planning and implementation. Used throughout a research initiative’s work, a ToC can support monitoring and learning and inform adaptive management. ToC also supports *ex post* evaluation, providing a set of hypotheses and the basis for indicators and measures of change that can be tested empirically.

# ToC Concepts and Definitions

Research, or any other intervention in a complex system, cannot directly “cause” impact. Rather, a research program can produce knowledge, technology and other innovations. In engaged research-for-development, a research program also provides services and contributes to processes, such as training, networking, or technical support. These products and services of research can then inform, enable, facilitate, support, or otherwise influence other system actors and processes, and thereby contribute to the changes needed to realize the intended impact. This can be modelled in a ToC as a series of three spheres that represent the declining relative influence of the research and its outputs as they interact with other actors and processes over time. Key concepts in the TOC are explained below and illustrated in Fig. 1.

The **Sphere of Control** encompasses the activities and outputs produced directly by the Initiative and over which the Initiative has control.

* **Activities** are the actual work done by the Initiative. Activities are defined as a measurable amount of work performed to convert inputs (i.e. time and resources) into outputs or innovations. This includes everything from background scoping, literature review, through analysis, innovation design and scaling, as well as capacity development, communications and stakeholder engagement.
* **Outputs** are the knowledge, technical or institutional advances produced by CGIAR research, as well as engagement and capacity development activities. Examples of outputs include new research methods, policy analyses, gene maps, new crop varieties and breeds, institutional innovations, or other products of research work.

The **Sphere of Influence** encompasses the system actors and processes that are influenced by Initiative activities and outputs through direct engagement and/or uptake and use of outputs.

* **System Actors**: Individuals or organizations operating as part of the system the Initiative aims to influence, whose actions can advance or impede the Initiative’s aims.
* **Outcome** is a change in knowledge, skills, attitudes and/or relationships (KASR), which manifests as a change in behavior in particular system actors, to which research outputs and related activities have contributed. Examples of outcomes include: use of a new technology (including outputs like a seed variety) by farmers; policy actors using research-based knowledge to inform policy decisions; participants in a CGIAR-supported process agree to a new germplasm conservation and exchange protocol; other researchers use CGIAR generated methods and/or data-bases.

The **Sphere of Interest** encompasses indirect changes that are outside the direct influence of the initiative. These may include both high-level outcomes (changes in KASR and behavior) and impacts.

* **Impact** is a durable change in the condition of people and their environment brought about by a chain of events or change in how a system functions to which research, innovations and related activities have contributed. It refers to a change of state (e.g. nutritional status; farm productivity; household wealth; gender representation in land rights) or flow (e.g. average annual income; CO2 emissions).

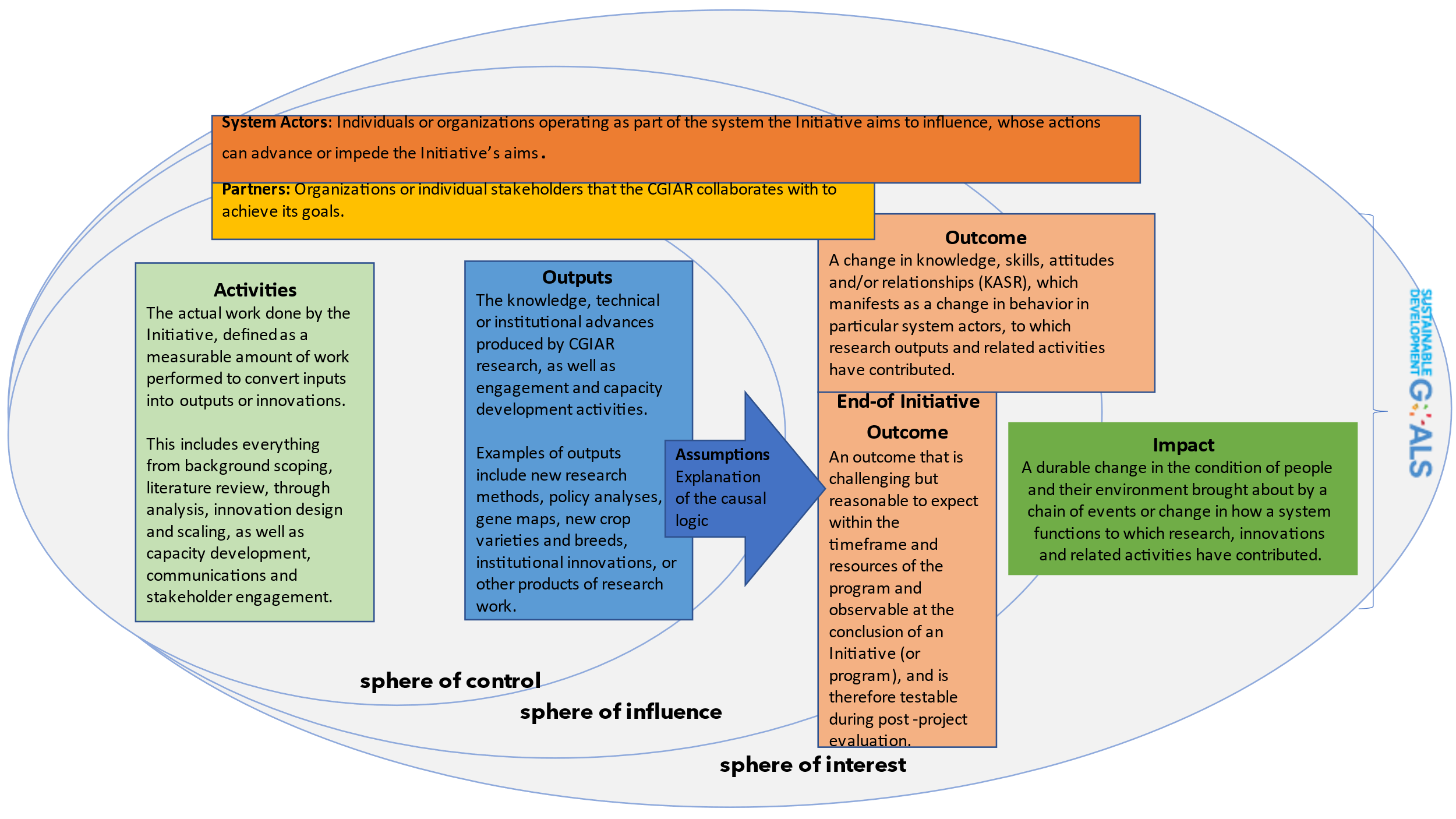
With these elements in place, the ToC model represents the sequence of events in the change process(es) to which the intervention is contributing, answering “Who will do what differently as a result of the Initiative?”. A complete ToC must also explain the causal logic, answering “Why will these changes happen?”.

* **Assumptions** are conditions that are likely necessary for the causal chain behind an intervention to hold. It is useful to distinguish between: i. theoretical assumptions, about how the intervention is expected to contribute to a process of change, and; ii. contextual assumptions about context, current conditions and the trajectory and risks that could affect the progress or success of a development intervention.

Most research initiatives will operate through more than one or several pathways; that is, through constellations of actors and processes leading to changes in, for example, a technology, the policy environment in which the technology will be used, and the capacity of system actors to use the technology. Each of these can be characterized as an impact pathway.

* An **Impact Pathway** is a sub-component of a ToC. It is the sequence of outputs, outcomes and the relevant assumptions and causal logic that explain a particular high-level outcome within a theory of change.

Fig. 1: ToC Concepts



# Nested and Linked ToCs

Because of the uncertain nature of research, and the inherently indirect and complex pathways that lead to impacts, a ToC approach is particularly well suited to R4D. However, there are trade-offs in modeling complex systems; as the scale and coverage become broader and more comprehensive, ToCs necessarily become less detailed and precise.

This limitation can be overcome by nesting ToCs, with an over-arching but general ToC, supported by increasingly more detailed and specific ToCs. Nested ToCs can capture elements of a large and complex implementation design in a way that allows ToC to be used for multiple purposes, including strategic planning and design, communications, reflection and adaptive management, monitoring and evaluation of progress and of key causal claims.

CGIAR will have an overall CGIAR ToC and four levels of nested ToCs for Initiatives: Action Area (N); Initiative (N-1)); Work Package (N-2), and; Innovation Package/Country (N-3). Analogous ToC levels will be used for other (non-Initiative) CGIAR projects.

There will also be interactions across Initiatives, with some Initiatives using outputs and/or contributing to joint outcomes with other Initiatives. Those interactions, as well as links to other CGIAR projects and country-level strategies, should be modelled in the appropriate ToCs.

# Who is Involved in ToC Development and Use?

While it is possible for an individual or a small team to develop a ToC, the process can be as important as the ToC itself. It is an opportunity to engage other system actors to learn about their interests, objectives and intentions, to share problem analyses, and to co-develop ideas and plans to achieve shared objectives, as well as to mitigate potential conflicting objectives.

The extent of participation depends on the scale to the ToC. Ideally, ToCs at the more detailed level (e.g. N-3 Innovation Package or County level) will be co-developed with the main stakeholders and partners from government, private sector, NGO and civil society.

For higher-level (N, N-1, N-2), multi-country ToCs, it will not be possible to engage all stakeholders. Instead ToCs at this level will be developed with representatives of key stakeholder groups. Ideally, those representatives will be actual stakeholders and partners from priority countries/contexts. The process can begin with a draft ToC shared for comment and input and usually involves a virtual or in-person facilitated workshop. It is helpful to have a knowledgeable facilitator and/or a resource person familiar with ToC concepts and approaches to help guide the process. It is useful to begin by thinking about the development challenge, and the needs and opportunities in the particular context, to identify what high level outcomes and impacts the Initiative aims to contribute to. Then there is an iterative process of identifying, analyzing, and strategizing about the processes and actors needed to realize those outcomes and impacts, and specifying what the Initiative needs to do/produce to reach those targets.

In practice, full stakeholder engagement requires time to build relationships and support genuine collaboration. Moreover, it is neither practical or ethical to consume time and resources and raise expectations of partners and stakeholders before an Initiative is approved and commitments can be made. It may be necessary to build first iteration ToCs prior to full stakeholder engagement. In that case, it is important to draw on knowledge and experience within the team, secondary information, and other inputs, to understand, anticipate and model the system as well as possible. The ToC can then be revisited and refined when time permits a more thorough engagement process.

# How to Develop a ToC

## Process and key considerations (general, for ToC at any scale)

Ideally, any strategy development process, including developing a ToC, should begin with a clear and thorough analysis of the problem and determination of goals, and then work backwards to define the best way to achieve those goals. In practice, it is rare to start with a “clean slate”. OneCGIAR has identified the Impact Areas and SDG targets that the portfolio will contribute to, and substantial work has already been done during the Initial Design Phase to identify development challenges and begin planning activities and draft first iteration Initiative ToCs. Moreover, many Initiatives will build on previous research and relationships. In any case, ToC development is a highly iterative process that accommodates flexible sequencing. With a first draft in place, it is recommended to:

1. Review and reflect on the Impact Areas and define the impact targets as specifically as possible, utilizing available literature and analyses, and the expert knowledge of partners to help appreciate the context, needs, and opportunities in the relevant geographic areas;

2. Specify highest-level outcomes, identifying which actors will need to take what actions for the impact targets to be realized (Note: These correspond to the Action Area (AA) outcomes in the AA ToCs). Outcomes at this level may not be realized within the timeframe of the Initiative, and the Initiative will not be accountable for them in the current phase. Nevertheless, the AA outcomes are part of the causal logic and, if they are well specified, it helps analyze and identify the necessary antecedent outcomes.

3. After reviewing and refining impacts and AA outcomes, shift the focus to activities and outputs to produce a provisional list of the main products and services that the Initiative will deliver. Research questions and the methods used to answer those questions should be clearly specified, but it is important to think beyond scientific and technical outputs and consider what partners will be involved and how they will be engaged.

4. The model is now populated at either end, with a provisional set of outputs and with AA outcomes and impacts identified. It is now necessary to identify the outcomes that are expected to result when partners and other system actors are informed, enabled, supported, encouraged, or otherwise influenced by the Initiative’s outputs to take actions that they would not otherwise have taken. These outcomes should be specified by actor or actor group (depending on the level of the ToC, with more specificity at lower levels) with actions defined in absolute terms if possible. For example, an outcome such as “20% of seed sold by private seed companies in countries x, y and z is of new varieties from CGIAR/NARS network” provides clearer guidance, and is more easily evaluated, than “More seed companies in target countries access and distribute new varieties from CGIAR/NARS network”.

6. Analyze and document the theoretical and contextual assumptions underlying each of the main causal relationships to explain how and why each result is expected to be realized. Why should actor X be expected to use or be influenced by an output or set of outputs generated by the Initiative? Why should the resulting actions of Actor X and Actor Y lead to actions by Actor Z and why should that contribute to the high-level outcomes and/or impacts targeted by the Initiative?

7. Review, revise and refine the ToC model to ensure that the main actors and activities are identified (including other WPs/Initiatives), that the causal logic underlying each step is sound, and that the whole program logic is sound and adequate to contribute effectively to the main outcomes and impacts.

8. Identify End-of-Initiative (EoI) outcomes. These are the highest-level outcomes in the model that are ambitious but could reasonably be realized within the time and resources available to the Initiative.

9. Review, reconfirm and revise as necessary to ensure that the TOC is coherent, complete, and logically sound. It should have plausible causal links from research questions and research and supporting activities, through outputs to EoI Outcomes and on to AA Outcomes.

These are the basic steps. For the process to be effective, there is need for ongoing validation and vetting of the ToC model with partners and other stakeholders. This helps make the ToC more accurate, effective, and transparent, and the participation process generates ownership in the model to support accountability and increases the effectiveness of the Initiative.

The ToC development process provides a forum and framework for bridging different disciplines, methods and knowledge sources. The ToC process surfaces participants’ ideas, perspectives and approaches, and stimulates them to contrast assumptions and expectations of the desired change. Participants build on each other’s ideas as they identify a collective purpose and set of outcomes. Moreover, participants can identify convergences between different activities involving multiple actor groups, as well as those which feed into one or several impact pathways. This helps make research more results-oriented and representative of the diverse perspectives, experience and expertise within the team and the workshop participants.

## Action Area (N) ToC process, participants and content

The AA ToCs show how Initiatives interact and, in combination, contribute to the primary AA impact pathways and intended impacts. At the AA and Initiative scales, the generic categories of “demand partners”, “innovation partners” and “scaling partners” are useful for indicating key actor groups (e.g. government policy makers; private sector seed companies; environmental NGOs). In practice, many partners may play more than one of these roles.

The Action Area ToCs are available at [CGIAR Investment Prospectus](https://www.cgiar.org/research/investment-prospectus/)

## Initiative (N-1) ToC process, participants and content

At the Initiative level, the ToC should identify the development challenge the Initiative is tackling and the priority constraints and opportunities that can be addressed through research (i.e. the research problems). It should present the research activities and supporting activities (e.g. capacity development; engagement in policy processes) that will be done within each of its constituent WPs and what outputs and outcomes will result. It should identify End-of-Initiative Outcomes and show how those EoI outcomes are expected to contribute to AA outcomes and to Impact.

First draft ToCs can be developed based on prior work, consultation, new strategic analysis and expert judgement. It will be valuable to identify and consult with representatives of potential partners, and other key system actors operating in the relevant area (thematically and geographically), to refine and improve the problem definition, to learn their objectives and plans, to identify opportunities for collaboration and for mitigating conflicts, and to focus the overall Initiative strategy. As noted above, there are always practical constraints on full stakeholder engagement. This can be mitigated to some extent by: 1. Building on prior knowledge and secondary information to understand the problem context and anticipate stakeholder needs and expectations, and; 2. Consulting stakeholders as soon and as fully as possible and revising the ToC accordingly.

The Initiative ToC should identify the most important outputs to be produced by the set of WPs, including both products and services, as clearly specified individual bullet points.

Outcomes should be specified by actor and action. Ideally, each outcome should correspond to a single actor group. As a rule of thumb, if several organizations/organization types are likely to be reached/influenced by similar knowledge and processes, and if they are likely to respond in similar ways, this can be treated as a single outcome. Otherwise, they should be treated as separate outcomes. The causal logic (i.e. theoretical reasoning) for each linkage should be explained in sufficient detail. Collectively, the list of outcomes in the Initiative ToC should include all the most important End-of-Initiative outcomes.

The ToC narrative should also explain the main subsequent outcomes (i.e. AA outcomes ) and the causal logic needed to reach impact, even though those outcomes are not expected to be realized within the time frame of the Initiative. This is necessary to be able to assess the overall ToC.

**N.B. In the current round of Initiative Proposal development, first draft Initiative ToCs have been prepared as part of the Initial Design Phase. It is recommended to develop first-iteration WP ToCs before revisiting and refining Initiative ToCs.**

## Work Package (N-2) ToC process, participants and content

At the WP scale, it is possible and necessary to include more detail about the kinds of partners and the nature of engagement, and to specify outcomes (who will do what differently as a result of the WP) by actor group or, if possible, by specific actor (i.e. by name).

The ToC narrative should identify the challenge and the main gaps/constraints as specifically as possible, identify what the research needs are (i.e. research problems) and indicate what the priority research focus will be. Ideally, the WP should focus on a set of priority research problems that need to be solved and the supporting activities (e.g. capacity development; engagement in policy processes) needed to realize the intended change.

Ideally, the process of developing and refining the ToC at WP level should involve key stakeholders and partners to refine and improve the problem definition, to learn their objectives and plans, to identify opportunities for collaboration and for mitigating conflicts, and to focus the overall Initiative strategy. In practice, this engagement work may have to be done after Initiative approval. It can be done asynchronously, by e-mail and bilateral meetings and synchronously in a workshop. After approval, ToCs can be reviewed and refined with a broader participation during Initiative/WP inception workshops. The workshop process can add value by providing a forum for networking, information sharing and co-development of objectives, strategies and plans.

The WP ToC should identify: research questions the WP will focus on; key research activities and outputs; key supporting activities and outputs; the main actor groups the WP will engage with, including specific examples from priority countries/contexts; intended outcomes defined in terms of actions by other system actors; clear explanation of the causal logic for each outcome, with attention to variations in the relevant context in priority countries/regions; end-of-initiative outcomes.

At the WP level, it is likely that there will be some outcomes that result from outputs and that themselves contribute to subsequent outcomes; if an outcome is important in the causal logic, it should be modelled in the ToC.

For presenting the WPs in the Initiative ToC, each WP title should communicate as clearly as possible the essence of what the WP will do, along with a short statement to indicate the main research focus/activities and the main support activities to be done by the WP.

A set of facilitating questions for developing a WP ToC is provided as Appendix B.

## Innovation Package/Country (N-3) ToC process, participants and content

ToC development at the country level follows the same principles as at the WP level, with attention to the specific conditions, processes and actors in each context. They will integrate multiple WPs within impact pathways defined by key actors/processes. Those impact pathways will likely represent the AAs pathways at the country level. They will be important for planning and coordinating planning, partnerships and outreach.

ToCs at this level are not required in the current cycle of proposal development and it will be defined before implementation for approved initiative as part of the inception phase.

# How ToCs Will be Evaluated

ToCs will be evaluated as part of Initiative proposal evaluation. ToCs at this stage need to be well articulated, clear, and sound. The narrative should demonstrate a good understanding of the problem context, with a description of the system, including the key actors and processes, within which the Initiative and its WP will operate. It should provide an explanation of both the scientific and social-political rationales and assumptions guiding the design.

The nested set of ToCs should collectively map activities, outputs and outcomes that will contribute to the 5 Impact Areas and SDG targets, and situate the 3-year Initiative within a longer timeframe (e.g. 10 years). That is, the set of ToCs should model the entire change process, from start of Initiative (building on work that has been done before) through to impact, and should identify realistic end-of-initiative (EoI) outcomes.

WP ToCs should be specified in sufficient detail that it will be possible to test them empirically; in other words, key outcomes should indicate what actor(s) or actor groups will take what action(s), and why.

The nested ToCs (at Initiative, work pack and innovation package scale) provide enough detail for an evaluator to appreciate:

1. Main Impact pathways: What high-level outcomes and impacts does the initiative aim to contribute to and how?
2. Key outputs: what are the main advances in knowledge and/or technology and what are the main process supports (e.g. capacity building; networking; empowerment) the Initiative aims to deliver?
3. Key partners: what organizations and individuals will the Initiative engage with and what role will those actors play in the change process?
4. Other system actors: what other organizations and individuals (beyond partners) will be involved in the change process and how?
5. Key outcomes: Who will do what differently as a result of the Initiative.
6. Assumptions: What are the contextual and theoretical assumptions underlying the causal logic of the Initiative?
7. Evaluable End-of-Initiative outcomes: What challenging but achievable outcomes will be realized by the end of the proposed phase of the Initiative?
8. In future evaluations (i.e. after Initiative inception), evaluators will also consider ongoing efforts by the Initiative to review and update the ToC

Note that the Quality of Research for Development (QoR4D) assessment framework, that will be used in proposal evaluation (<https://cas.cgiar.org/isdc/publications/quality-research-development-practice-one-cgiar> ), considers principles of relevance and legitimacy, and requires “Evidence that the Initiative is demand driven through codesign with key stakeholders and partners…”.

# Appendix A: Glossary of Terms

**Activities:** A measurable amount of work performed to convert inputs (i.e. time and resources) into outputs or innovations. This includes everything from background scoping, literature review, through analysis, innovation design and scaling, as well as capacity development, communications and stakeholder engagement.

**Actors** (see System Actors)

**Assumptions:** conditions that are likely necessary for the causal chain behind an intervention to hold. It is useful to distinguish between:

i. theoretical assumptions, about how the intervention is expected to contribute to a process of change, and;

ii. contextual assumptions about context, current conditions and the trajectory and risks that could affect the progress or success of a development intervention.

**Change:** A generic term to mean any difference. Specific changes resulting from a research output are to be characterized as outcomes or impacts and they will require specific indicators.

**Contribution:** Causal relationship in which an intervention (e.g. an Initiative) is one of two or more causal elements leading, independently or in combination, to a change.

**Impact**: A durable change in the condition of people and their environment brought about by a chain of events or change in how a system functions to which research, innovations and related activities have contributed. It refers to a change of state (e.g. nutritional status; farm productivity; household wealth; gender representation in land rights) or flow (e.g. average annual income; CO2 emissions).

**Impact pathway:** The sequence of outputs, outcomes and the relevant assumptions and causal logic that explain a particular high-level outcome within a theory of change. An Impact Pathway is a sub-component of a ToC.

**Inputs:** The financial, human, and material resources used in research and development work conducted by the CGIAR.

**Outcome:** A change in knowledge, skills, attitudes and/or relationships, which manifests as a change in behavior, to which research outputs and related activities have contributed.

**End-of-Initiative (Program) Outcome**: An outcome that is challenging but reasonable to expect within the timeframe and resources of the Initiative (program) and observable at the conclusion of an Initiative (or program), and is therefore testable during post-project evaluation.

**Results :** A collective term referring to one or more outputs, outcomes or impacts of an intervention.

**Sphere of control:** An element of a conceptual model of the CGIAR Results Based Management (RBM) system that refers to actions under direct control of the Initiative (program) that result in outputs. Covers CGIAR research, innovations, services and output delivery.

**Sphere of influence:** An element of a conceptual model of the CGIAR RBM system that refers to actions of system actors that can be influenced directly by the Initiative (program) (i.e. by outputs), defined as outcomes.

**Sphere of interest:** An element of a conceptual model of the CGIAR RBM system that includes outcomes and impacts that can only be influenced indirectly by the program (i.e. by the actions of other system actors = outcomes).

**System Actors:** Individuals or organizations operating as part of the system the Initiative aims to influence and whose actions can advance or impede the Initiative’s aims.

# Appendix B: Facilitating Questions for Work Package ToC Development

The following questions are intended to be used to facilitate development of Work Package ToCs. They are designed to stimulate thinking about WP strategy and elements of a ToC at WP level.

In the current round of Initiative proposal development, first iteration Initiative ToCs have been prepared as part of the Initial Design Phase. It is recommended to develop first-iteration WP ToCs before revisiting and refining Initiative ToCs. The WP ToC development process will both challenge and inform the subsequent review and revision of the Initiative ToC.

Ideas generated in discussing these questions can be used to populate the WP ToC template (Appendix C) and inform the WP narrative ToC and the Proposal Template.

Facilitating Questions:

1. What is the main problem(s) or development challenge the WP aims to address? (Refer to Initiative and Action Area Challenges and refine as needed. Consider differentiated needs and opportunities to address disadvantaged groups by gender and social class.)
2. What work has been already done to analyze and help address the problem (Including previous CGIAR projects)?
3. What impacts and Action Area outcomes will the WP contribute to? (Refer to Impact Areas, and Action Area outcomes)
4. What are the most important processes (ongoing or new) that will be needed to realize the intended impacts? (e.g. national policy reform; trade association initiatives; international conventions or commitments)
5. Who are the most important system actors in these processes (including other CGIAR WPs/Initiatives) and what do they need to do to realize the intended impacts?
6. What will motivate those actors to take the needed action(s) (in other words, what is the causal logic that explains the outcomes)?
7. What research is needed to stimulate or support this change process, and why is it important?
8. What will be the main outputs of the WP’s research?
9. What other supporting activities (e.g. capacity development; networking; multi-stakeholder process facilitation; technical support) will the WP undertake and why are they important for realizing intended outcomes?
10. Which partners will the WP work with (including other CGIAR WPs/Initiatives)?
11. What Outcomes of the WP’s work will be realized by the End-of-Initiative (in other words, what system actors will do what differently in whole or in part because of the WP’s work)? Ideally, these should be stated in concrete, measurable terms.
12. What next-level outcomes (i.e. beyond and resulting from end-of-Initiative Outcomes and precursors to the highest-level outcomes and impacts) are anticipated, recognizing that those outcomes will not be realized within the Initiative time frame.

# Appendix C. ToC Template

**ToC Template**

*This template should be consulted in conjunction with the TOC guidance document. Present here the Initiative TOC (diagram and narrative) and a TOC for each WP. The initiative ToC connects its End of Initiative Outcomes (EoI) with the AA Outcomes and clarifies its contribution to Impact Area and SDG using specific targets. The WP ToC shows the connection with the Initiative ToC using the same EoI Outcomes. More than one WP can contribute to the same EoI Outcome. A WP can also have unique outcomes.*

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# Initiative Name

## Initiative Level

### Part A (Design)

*Provide a graphical representation including causal linkages using the sample below. This is a simple, static, linear representation of a complex, dynamic and non-linear reality, feedback loops omitted for clarity. Please use symbols presented in annex 1. Use SDG Targets from annex 2 and impact Area targets from annex 3. Add AA outcomes from annex 4 and EoI outcomes. WPs can contribute to more than one EoI Outcome and EoI Outcomes can contribute to more than AA Outcome. Represent any specific pathway that are included in the TOC.*

Outcome: Sphere of Influence

Impact: Sphere of Interest

**Nutrition, health & food security target**: Target name…

End of Initiative Outcome: ….

WP 1:

**Environmental health & biodiversity target**: Target name….

**Climate adaptation &greenhouse gas reduction**: Target name…

**Gender equality, youth & social inclusion target**: Target name…

**Poverty reduction, livelihoods & jobs target**: Target name…

Action Area Outcome:

Action Area Outcome: ….

End of Initiative Outcome: ….

End of Initiative Outcome: ….

WP 4:

WP 2:

WP 3:

Use this table to list the SDG targets and present to which Impact Area they relate and how the initiative will contribute.

|  |  |  |  |
| --- | --- | --- | --- |
| **SDG Target** | | **Linked impact Area(s)** | **How the initiative is contributing to the target** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
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|  |  |  |  |

Use this table to explain the causal logic from EoI Outcomes and AA Outcomes. Select AA Outcomes from Annex 4.

|  |  |  |  |
| --- | --- | --- | --- |
| **From EoI Outcome (Name)** | **To AA Outcome (Name)** | **Actor Type** | **Assumption** |
|  |  |  |  |
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### Part B (Narrative)

500 words max

*Provide a narrative explanation of the Initiative TOC, expanding and updating the version provided in the pre-concept (250 words). This level ToC describes the high-level outcomes and impacts that the Initiative is contributing to. The impact description includes the SDG and the CGIAR Impact Areas, the Action Area outcomes, the specific initiative level outcomes and how the Work Packages are positioned. The description of the ToC should explain the types of partnerships, the roles of partners needed for outcomes and impacts to be realized, and the key assumptions. The narrative will help you generate the following content required in the Proposal template (500 words max):*

To complement the Initiative ToC diagram which illustrates how the Work Packages and End-of Initiative (EoI) outcomes contribute to Action Area outcomes, CGIAR Impact Areas and SDG targets, the Initiative ToC narrative provides an explanation of the causal logic leading from scientific research to impact. In particular, the ToC should address the assumptions of how EoI outcomes are expected to lead to Action Area outcomes and CGIAR Impacts.

### Part C (CGIAR Impact Area contribution)

50 words x impact area

*Update the explanation of the initiative contribution to each impact area from the concept note, with a brief description of the related target.*

|  |  |  |
| --- | --- | --- |
| **Impact Area** | **How will your Initiative contribute to each of the CGIAR Impact Areas in the period 2022-2030?**  *Take the text from the investment plan (update if needed to address reviewers’ comments that you may have received* | **Brief description of targets in the sphere of influence and interest** |
| Nutrition, health & food security |  |  |
| Poverty reduction, livelihoods & jobs |  |  |
| Gender equality, youth & social inclusion |  |  |
| Climate adaptation & greenhouse gas reduction |  |  |
| Environmental health & biodiversity |  |  |

## 

# Work Package Level

(Repeat this section for each work package)

***Work Package name***

### Part A (Design)

*Provide for each WP a graphical representation including causal linkages following the example below. This is a simple, static, linear representation of a complex, dynamic and non-linear reality, feedback loops omitted for clarity. Please use symbols presented in annex 1. Select relevant end-of-initiative outcomes from the initiative ToC (previous section) and specify the types of actors you expect to influence including, geographical scope and related assumptions. Provide a representative list of outputs contributing to specific WP outcomes and EoI Outcomes. WP Outcomes can contribute to more than one EoI Outcome, and Outputs can contribute to more than one Outcome. Represent any specific pathway that are included in the TOC. WPs can have outputs and outcomes in common. You can also describe output/outcomes shared with other Initiatives.*

Output Name From other WP

End of Initiative Outcome (same as initiative level)

1

4

Output Name

Outcome within the initiative timeline at WP level

outcomes (if applicable)

Outcome within the initiative timeline at WP level

Output name

Output Name

**Actor Type/Name**

**Pathway: Name**

8

7

6

Output from other Initiative

**Actor Type/Name**

**Actor Type/Name**

Outcome within the initiative timeline at WP level

Output Name

End of Initiative Outcome (same as initiative level)

**Pathway: Name**

3

2

5

**Actor Type/Name**

**Actor Type/Name**

**Actor Type/Name**

Outcome within the initiative timeline at WP level

Use this table to explain the causal logic for each link (i.e. each arrow) in the ToC. Indicate the number corresponding to the causal linkages from the diagram in column 1. Repeat the number in a new row if:

1. more than one actor type is expected to perform an action thanks to your influence for the same outcome
2. the same actor has more than one action
3. there is more than one assumption for the same action

Where relevant, ensure that the formulation of the assumption explicitly defines gender considerations

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Causal linkage #** | **From Result (name)** | **To Result (name)** | **Geographical dimension (Global, Region X, or Country Y)** | **Actor Type**  **(with examples if known)** | **Assumption** |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |

If preferred, you can have also a separate excel table that could help better to organize the data post submission.

### Part B (Narrative)

1000 words max

*The Work Package ToCs provide more specific information about the outputs/innovations to be delivered and the causal processes they will contribute to. Each WP ToC diagram illustrates the main outputs/innovations to be produced and links them to specific end-of-initiative outcomes. The WP ToC narrative provides a description of the specific research problem(s) the Work Package is addressing. It describes the research question(s), research methods, necessary supporting and scaling activities that you will use in your scaling readiness plan (e.g. capacity development; multi-stakeholder processes; policy engagement), outputs, and partnerships (including other WPs). The ToC narrative explains the theoretical and contextual assumptions about how the WP outputs are expected to support and influence other system actors and processes, leading to outcomes. These assumptions will be tested through your MELIA activities. The narrative should specify key WP outcomes, including End-of-Initiative Outcomes measured with indicators specified in the MELIA section), by actor/actor group, with specific named examples for the most relevant contexts (e.g. country, region). The narrative should include description of gender-responsive/transformative outputs and outcomes as appropriate. Collectively, the EoI Outcomes of all WPs constitute the full set of Initiative level EoI outcomes.*

*The narrative should allow you to generate content to feed the Proposal template, which requires the following to be covered in max 1000 words:*

*The below elements are expected in a coherent narrative:*

1. *WP title*
2. *WP main focus and prioritization (guideline 100 words)*
3. *Geographic scope: (Global/Region/Country)*
4. *WP research questions, associated scientific methods and key outputs (guideline 500 words, or tabular format if preferred)*
5. *The causal processes - including approach to scaling (e.g. capacity development; multi-stakeholder processes; policy engagement) - which link research outputs to end-of-Initiative outcomes (guideline 200 words)*
6. *Key demand, innovation and scaling partners (guideline 100 words)*
7. *Key WP ToC assumptions and risks (can link to table in Section 7.3 to save word count)*
8. *Interdependencies and synergies with other Work Packages (and other Initiatives if relevant) (guideline 100 words)*
9. *Links to Innovation Package and Scaling Readiness Plan*
10. *Measuring and managing performance and results – links to Management, MELIA and Projected Benefits plans*

# Annex 1: Symbols for TOC

|  |  |
| --- | --- |
| **Symbol** | **Description** |
|  | Sustainable Development Goal |
|  | Impact area |
|  | Action area outcome |
|  | End of initiative outcome connecting the WP ToC with the Initiative TOC |
|  | Work package |
|  | causal logic |
|  | Outcome within the initiative timeline at WP level |
|  | Output |
|  | Output/Outcome from other WP |
|  | Output/Outcome from another Initiative/Program |
|  | Actor |
|  | Assumption |
|  | Pathway |
| Logo, icon  Description automatically generated | Gender-responsive/transformative outcomes and outputs |

# Annex 2: SDG and Targets

|  |
| --- |
| **Goal 1. End poverty in all its forms everywhere** |
| 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day |
| 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions |
|  |
| 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable |  |
| 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance |  |
|  |
| 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters |  |
|  |
|  |
| 1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions |  |
|  |
| 1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions |  |
| **Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture** |  |
| 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 |  |
| **Goal 3. Ensure healthy lives and promote well-being for all at all ages** |  |
| 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births |  |
|  |
| 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births |  |
|  |
| 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases |  |
|  |
|  |
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|  |
| 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being |  |
|  |
| 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol |  |
|  |
| 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents |  |
| 3.7 By 2030, 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 |  |
|  |
| 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all |  |
|  |
| 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination |  |
|  |
|  |
| 3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate |  |
| 3.b Support the research and development of vaccines and medicines for the communicable and non‑communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all |  |
|  |
| 3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States |  |
| 3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks |  |
| **Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all** |  |
| 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes |  |
| 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education |  |
|  |
| 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university |  |
| 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship |  |
| 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations |  |
| 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy |  |
| 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development |  |
| 4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all |  |
| 4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries |  |
| 4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States |  |
| **Goal 5. Achieve gender equality and empower all women and girls** |  |
| 5.1 End all forms of discrimination against all women and girls everywhere |  |
| 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation |  |
|  |
| 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation |  |
|  |
| 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate |  |
| 5.5 Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life |  |
|  |
| 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences |  |
|  |
| 5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws |  |
|  |
| 5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women |  |
| 5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels |  |
| **Goal 6. Ensure availability and sustainable management of water and sanitation for all** |  |
| 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all |  |
| 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations |  |
| 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally |  |
|  |
| 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity |  |
|  |
| 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate |  |
|  |
| 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes |  |
| 6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies |  |
| 6.b Support and strengthen the participation of local communities in improving water and sanitation management |  |
| **Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all** |  |
| 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services |  |
|  |
| 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix |  |
| 7.3 By 2030, double the global rate of improvement in energy efficiency |  |
| 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology |  |
| 7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support |  |
| **Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** |  |
| 8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries |  |
| 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors |  |
| 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services |  |
| 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10‑Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead |  |
|  |
| 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value |  |
|  |
| 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training |  |
| 8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms |  |
| 8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment |  |
|  |
| 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products |  |
|  |
| 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all |  |
|  |
| 8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries |  |
| 8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization |  |
| **Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation** |  |
| 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all |  |
|  |
| 9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries |  |
|  |
| 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets |  |
|  |
| 9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities |  |
| 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending |  |
|  |
| 9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States |  |
| 9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities |  |
| 9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020 |  |
| **Goal 10. Reduce inequality within and among countries** |  |
| 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average |  |
| 10.2 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 |  |
| 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard |  |
| 10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality |  |
| 10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations |  |
| 10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions |  |
| 10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies |  |
|  |
| 10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements |  |
| 10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes |  |
| 10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent |  |
| **Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable** |  |
| 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums |  |
| 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons |  |
| 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries |  |
|  |
| 11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage |  |
| 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations |  |
|  |
| 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management |  |
|  |
| 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities |  |
|  |
| 11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning |  |
| 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels |  |
|  |
| 11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials |  |
| **Goal 12. Ensure sustainable consumption and production patterns** |  |
| 12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries |  |
| 12.2 By 2030, achieve the sustainable management and efficient use of natural resources |  |
|  |
| 12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses |  |
| 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment |  |
|  |
| 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse |  |
| 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle |  |
| 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities |  |
| 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature |  |
| 12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production |  |
| 12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products |  |
| 12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities |  |
| **Goal 13. Take urgent action to combat climate change and its impacts[b]** |  |
| 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries |  |
|  |
| 13.2 Integrate climate change measures into national policies, strategies and planning |  |
| 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning |  |
|  |
| 13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible |  |
| 13.b 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 |  |
| **Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development** |  |
| 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution |  |
| 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans |  |
| 14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels |  |
| 14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics |  |
| 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information |  |
| 14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation[c] |  |
| 14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism |  |
| 14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries |  |
| 14.b Provide access for small-scale artisanal fishers to marine resources and markets |  |
| 14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of “The future we want” |  |
| **Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss** |  |
| 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements |  |
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| 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally |  |
| 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world |  |
| 15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development |  |
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| 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species |  |
| 15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed |  |
| 15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products |  |
| 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species |  |
| 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts |  |
| 15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems |  |
| 15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation |  |
| 15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities |  |
| **Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels** |  |
| 16.1 Significantly reduce all forms of violence and related death rates everywhere |  |
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| 16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children |  |
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| 16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all |  |
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| 16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime |  |
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| 16.5 Substantially reduce corruption and bribery in all their forms |  |
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| 16.6 Develop effective, accountable and transparent institutions at all levels |  |
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| 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels |  |
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| 16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance |  |
| 16.9 By 2030, provide legal identity for all, including birth registration |  |
| 16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements |  |
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| 16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime |  |
| 16.b Promote and enforce non-discriminatory laws and policies for sustainable development |  |
| **Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development** |  |
| **Finance** |  |
| 17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection |  |
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| 17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries |  |
| 17.3 Mobilize additional financial resources for developing countries from multiple sources |  |
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| 17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress |  |
| 17.5 Adopt and implement investment promotion regimes for least developed countries |  |
| **Technology** |  |
| 17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism |  |
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| 17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed |  |
| 17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology |  |
| **Capacity-building** |  |
| 17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation |  |
| **Trade** |  |
| 17.10 Promote a universal, rules-based, open, non‑discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda |  |
| 17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries’ share of global exports by 2020 |  |
| 17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access |  |
| **Systemic issues** |  |
| *Policy and institutional coherence* |  |
| 17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence |  |
| 17.14 Enhance policy coherence for sustainable development |  |
| 17.15 Respect each country’s policy space and leadership to establish and implement policies for poverty eradication and sustainable development |  |
| *Multi-stakeholder partnerships* |  |
| 17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries |  |
| 17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships |  |
| *Data, monitoring and accountability* |  |
| 17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts |  |
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| 17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries |  |
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# Annex 3: Impact area targets

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|  | **Impact Area 1** | **Impact Area 2** | **Impact Area 3** | **Impact Area 4** | **Impact Area 5** |
| **Title** | **Nutrition, health and food security** | **Poverty reduction, livelihoods and jobs** | **Gender equality, youth and social inclusion** | **Climate adaptation and mitigation** | **Environmental health and biodiversity** |
| Collective global 2030 targets | End hunger for all and enable affordable healthy diets for the 3 billion people who do not currently have access to safe and nutritious food.    Reduce cases of foodborne illness (600 million annually) and zoonotic disease (1 billion annually) by one third. | Lift at least 500 million people living in rural areas above the extreme poverty line of US $1.90 per day (2011 PPP).    Reduce by at least half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions. | Close the gender gap in rights to economic resources, access to ownership and control over land and natural resources for over 500 million women who work in food, land and water systems.    Offer rewardable opportunities to 267 million young people who are not in employment, education or training | Implement all National adaptation Plans (NAP) and Nationally Determined Contributions (NDC) to the Paris Agreement.    Equip 500 million small-scale producers to be more resilient to climate shocks, with climate adaptation solutions available through national innovation  systems.    Turn agriculture and forest systems into a net sink for carbon by 2050, with emissions from agriculture decreasing by 1 Gt per year by 2030 and reaching a  floor of 5 Gt per year by 2050 | Stay within planetary and regional environmental boundaries: consumptive water use in food production of less than 2500 km3 per year (with a focus on the most stressed basins), zero net deforestation, nitrogen application of 90 Tg per year (with a redistribution towards low-input farming system) and increased use efficiency; and phosphorus application of 10 Tg per year.    Maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly  managed genebanks at the national, regional, and international levels. |

# Annex 4: Action Area outcomes

**Action Area Genetic Innovation**

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| **Outcome statements** | Researchers, breeders and other users access genebank collections where use is facilitated with more data associated with accessions |
| CGIAR & partners produce better, demand-driven, more impactful varieties defined by multidisciplinary, holistic market intelligence |
| CGIAR & partner breeding programs increase their efficiency and speed of variety development by using best practices and shared services |
| CGIAR & partner breeding programs accelerate variety development and quality by securing access and using novel, cutting-edge technologies |
| Public and private sector partners increase co-ownership and co-implementation of research and investment decisions |
| Seed sector actors increase their investments in scaling-up new varieties from CGIAR breeding pipelines |
| Farmers adopt climate-resilient, nutritious, market-demanded varieties more broadly and rapidly |

**Action Area Resilient Agrifood Systems**

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| **Outcome statements** | Smallholder farmers and their organizations adopt resource-efficient and climate-smart technologies and practices and use digital services to enhance their capacity and skills |
| Smallholder farmers have increased capacity to cope with climate risks and extremes through diversification, access to climate information, insurance and credit products and services |
| Women, youth, and marginalized groups participate in and benefit from improved value chains, farming systems and AFS |
| Our research and scaling partners use available data, new tools, and turnkey solutions to co-create resilient and inclusive AFS |
| Public, private and finance sector invest in climate smart and more inclusive agri-business models and support services |
| National and local decision makers adopt decision support tools and design enabling policies and incentive systems based on scientific evidence |

**Action Area Systems Transformation**

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| **Outcome statements** | Demand and scaling partners use knowledge gained from science based assessments to implement agroecological options that are economically viable, environmentally sound and socially inclusive |
| Carbon sequestration in agrifood systems is increased and green energy is widely used |
| Water use is deliberate and efficient reflecting national priorities and regional equity |
| National and subnational stakeholders lead food, land, and water system transformation and have the means to advance livelihoods, nutrition, environment, and inclusion objectives |
| Smallholder farmers and value chain actors have increased means and skills for adapting to climate change |
| National policymakers, international organizations, and market actors rely on innovative tools for decision-making |
| National agencies, civil society networks, and private actors have incorporated gender and inclusive transformative strategies |