



# CAPITALS COALITION

## **TEEB for Agriculture and Food Operational Guidelines for Business**

# User templates

April 2021

### Note to user

Welcome to the User Template of the TEEBAgriFood Operational Guidelines for Businesses; a practical tool to help your business to make better decisions. While carrying out your assessment, you can answer the questions in the cells with grey text or by ticking the boxes. You can document all your assessment here or link to your own spreadsheet. All information provided is confidential.

For each step, make sure you have undertaken the actions and reached the outcomes before going to the next step. The process is iterative, so it's normal revising previous step while advancing to gain consistency

Feel free to add comments if you have questions or are not sure about the content; the TEEBAgriFood team for business is available to support you.

You will find pages and references back to the Operational Guidelines for Business as well as information boxes to help you to progress. [You can consult the Guidelines here.](#)

For further information about complementary tools, database, please refer to Annex A, p.117 of the Guidelines.

The User Template of Great Grain – the hypothetical example - may offer inspiration and illustration of how to approach the Steps.



Funded by the  
European Union

# FRAME STAGE WHY?



## Step 01: Get started

**Question that this Step will answer**

**Actions**

**Why should you conduct a capitals assessment?**

1.2.1 Familiarize yourself with the basic concepts of capitals

1.2.2 Apply the concept of capitals to your business context

1.2.3 Prepare for your assessment

### Outputs that you should achieve from this Step:

- An understanding of the concept of capitals and of stocks, flows, and values
- An understanding of the interactions between capitals
- Identification of your business applications
- Support for the assessment from key business stakeholders
- An initial understanding of the resources needed to carry out an integrated capitals assessment

| Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Pages |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 1. What is the context of your business activities now and what it could be in the future?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | p.13  |
| <p>Great Grains is a rice production and trading company concerned by our increasing costs due to climate change and other factors.</p> <p>Increasing droughts and water scarcity are pushing up the cost of production, as we have to extract and pay for water to irrigate our crops. Systemic distribution inefficiencies are leading to issues of food and nutrition security, food waste and increased emissions in the areas we operate in. Recently, we faced allegation of unsafe packaging contaminating our produce, which has hurt our reputation. We know our costs are increasing, but have a limited understanding of how our operations interact with local water sources, consumers, local communities and regional food and nutrition security.</p> <p>Senior management wants to understand these issues better so they can make the right budget decisions, while contributing to improving regional food and nutrition security.</p> <p>Great Grains is also concerned about the increasing wider risks associated with climate change and would like to understand, measure and value other kinds of climate risk exposure along the supply chain so we are prepared to make similar decisions in the future.</p> |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 2a. Which impacts and dependencies are you aware of in your business?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | p.12, 13, 14, 15 |
| <p>Impacts: water use, food security, food waste, GHG emissions, food safety practices</p> <p>Dependencies: Water, social acceptance and trust, climate regulation</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |
| 2b. What risks and opportunities could these create?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | p.17, 18         |
| <p><input checked="" type="checkbox"/> Operational</p> <p><input checked="" type="checkbox"/> Legal &amp; Regulatory</p> <p><input checked="" type="checkbox"/> Reputational &amp; Marketing</p> <p><input type="checkbox"/> Financial</p> <p><input checked="" type="checkbox"/> Societal</p> <p>Risks include: (i) operational risks, due to higher costs for water as scarcity increases; (ii) legal and regulatory risk, due to potential loss of social license to operate, and (iii) reputational risk, due to loss of trust and reputation for food safety issues.</p> <p>Opportunities include: (i) operational and (ii) reputational opportunities (ie. investing in food waste reduction schemes to improve food security, saving on waste management cost and improving reputation), (iii) societal, as integrating more small holder farmers into operations will improve relations with wider society</p> |                  |
| 3. What is the potential application of your assessment results?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | p.19, 20         |
| <p><input checked="" type="checkbox"/> Assess risks and opportunities</p> <p><input type="checkbox"/> Compare options</p> <p><input checked="" type="checkbox"/> Assess impacts on stakeholders</p> <p><input type="checkbox"/> Estimate total value</p> <p><input type="checkbox"/> Communicate internally or externally</p> <p><input type="checkbox"/> Other</p> <p>Asses risks and opportunities: an assessment to understand how Great Grains' operations leads to capital risks and opportunities.</p> <p>Assess impacts on stakeholders: an assessment to identify who is affected and how best to improve relationships with consumers, local community and small holder farmers.</p>                                                                                                                                                                                                                          |                  |
| 4. Which internal stakeholders could support the assessment?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | p.21             |
| <ul style="list-style-type: none"> <li>- Procurement department: to understand the water scarcity issue at a local producer level</li> <li>- Management in all departments: to collect relevant data for the assessment</li> <li>- Public relations department: community outreach to understand the needs of the local community</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                  |
| 5. What resources (time, skills) will you need for your assessment?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | p.21             |
| <p>Knowledge of the business from internal employees during a period of 6 weeks scoping, followed by consultation from an environmental economist. Total timeframe for assessment of 4-6 months</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                  |

# SCOPE STAGE WHAT?



## Step 02: Define the objective

**Question that this  
Step will answer**

**Actions**

**What is the objective of your  
assessment?**

2.2.1 Identify the target audience

2.2.2 Identify stakeholders and the  
appropriate level of engagement

2.2.3 Articulate the objective of your  
assessment

### Outputs that you should achieve from this Step:

- The defined audience who will ultimately consider and apply the results of the assessment
- A stakeholder list and appropriate level of engagement
- The specific benefits you anticipate from the assessment
- Building on the above, you should have a defined objective for your assessment.

| Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Pages            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1. Which Capitals are you assessing?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | p.10, 11, 12, 16 |
| <input checked="" type="checkbox"/> Natural Capital<br><input checked="" type="checkbox"/> Human Capital<br><input checked="" type="checkbox"/> Social Capital<br><input type="checkbox"/> Produced Capital                                                                                                                                                                                                                                                                                                                                                                   |                  |
| 2. Who is the target audience? <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | p.25, 26         |
| Senior management at Great Grains                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                  |
| 3. Who are your stakeholders? <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | p.26             |
| <p>Workers: we plan to include workers in the development of the assessment to make the resultant decision tailored to the actual needs. This will be in the form of a qualitative feedback consultation.</p> <p>Community: we plan to hold town halls with local communities and small holder farmers to understand the extent of the impact on populations of water scarcity and consequent local food security.</p> <p>Consumers: we plan to carry out customer satisfaction surveys to understand our consumers reaction to the food packaging contamination scandal.</p> |                  |
| 4. What specific benefits do you anticipate from the assessment?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | p.28             |

<sup>1</sup> The target audience is defined as the main users of the assessment output (i.e., the people who will use the output to make decisions).

<sup>2</sup> In addition to the target audience, you may engage with other stakeholders who can: i. Provide information, ii. Influence the assessment, iii. Help verify, validate, and interpret the assessment

We anticipate an improved relationship with local communities and a deeper understanding of Great Grains' impact on local water scarcity and food and nutrition security, which will allow us to plan how to improve efficiency and mitigate risk.

We also expect to inform our climate strategy and improve resilience with the information collected in this assessment, as well as cost out a plan to restore trust in the business following the food packaging scandal.

**5. What is the specified objective?**

p.27

Understand the costs associated with certain risks along the value chain, and how these affect the business and stakeholders. Specifically:

1. Understand water use in Great Grains' production
2. Measure business contribution towards food and nutrition security for local communities
3. Understand the impact of food contamination on their business
4. Identify areas of value chain at risk from climate change

## Step 03: Scope the assessment

### Question that this Step will answer

### Actions

**What is an appropriate scope to meet the objective?**

- 3.2.1 Determine the organizational focus
- 3.2.2 Determine the value-chain boundary
- 3.2.3 Specify whose value perspective
- 3.2.4 Decide on assessing impacts and/or dependencies
- 3.2.5 Decide which type of values you will consider
- 3.2.6 Consider other technical issues
- 3.2.7 Address key planning issues

### Outputs that you should achieve from this Step:

- A well-defined scope that is appropriate for your assessment and objective.

| Questions                                                                                                                                                                                                                                           | Pages            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| 1. What is your organizational focus?                                                                                                                                                                                                               | p.30, 31         |
| <input checked="" type="checkbox"/> Corporate <input type="checkbox"/> Project <input type="checkbox"/> Product<br>Considering the whole business                                                                                                   |                  |
| 2. What is your value-chain boundary? <sup>3</sup>                                                                                                                                                                                                  | p.31, 32         |
| <input checked="" type="checkbox"/> Upstream <input checked="" type="checkbox"/> Direct operations <input checked="" type="checkbox"/> Downstream<br>This assessment is considering agricultural production so include direct operations and inputs |                  |
| 3. Are you assessing impacts and/or dependencies                                                                                                                                                                                                    | p.33             |
| <input checked="" type="checkbox"/> Impacts on your business<br><input checked="" type="checkbox"/> Impacts on society<br><input checked="" type="checkbox"/> Your business dependencies<br>Description                                             |                  |
| 4. What is your value perspective?                                                                                                                                                                                                                  | p.33, 34, 35, 36 |
| <input type="checkbox"/> Value to business<br><input type="checkbox"/> Value to society<br><input checked="" type="checkbox"/> Both: value to business and society<br>Description                                                                   |                  |
| 5. What types of value will you use?                                                                                                                                                                                                                | p.37             |
| <input type="checkbox"/> Qualitative <input checked="" type="checkbox"/> Quantitative <input checked="" type="checkbox"/> Monetary<br>Some elements will be valued in monetary terms                                                                |                  |
| Technical issues to consider                                                                                                                                                                                                                        |                  |
| 6. What is the baseline of your assessment?                                                                                                                                                                                                         | p.38             |
| Prevailing conditions/ business as usual: a scenario in which there are no significant changes in management practices of Great Grains                                                                                                              |                  |
| 7. What scenarios will you consider?                                                                                                                                                                                                                | p.38             |
| A scenario with sustainable practices put in place to manage main impacts and dependencies.                                                                                                                                                         |                  |

<sup>3</sup> You can choose more than one option. Please describe the value-chain boundary with more precision

|                                                                                                                                                                                                                                                                                                                                  |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 8. What is the spatial boundary of your assessment?                                                                                                                                                                                                                                                                              | p.39 |
| Our assessment of water usage and local food security will focus on three production sites in Country A. For assessment of climate risk, the spatial boundary will be global, looking at the corporation as a whole                                                                                                              |      |
| 9. What is the temporal boundary of your assessment?                                                                                                                                                                                                                                                                             | p.39 |
| The assessment will consider current impacts and dependencies only. For water, food security and food safety practices, the assessment has a baseline in January 2021 and plans to have the first results in January 2022. For climate change, the time horizon will be five years, and we will regular monitoring the situation |      |

## Step 04: Determine the impacts and/or dependencies

| Question that this Step will answer                    | Actions                                                     |
|--------------------------------------------------------|-------------------------------------------------------------|
| <b>Which impacts and/or dependencies are material?</b> | 4.2.1 List potentially material impacts and/or dependencies |
|                                                        | 4.2.2 Identify the criteria for your materiality assessment |
|                                                        | 4.2.3 Gather relevant information                           |
|                                                        | 4.2.4 Complete the materiality matrix                       |

### Outputs that you should achieve from this Step:

- A prioritized list of material impact drivers and dependencies and changes in capitals to include in your assessment.
- The outlines of impacts drivers and dependencies pathways

| Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Pages                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| 1. Which impact drivers and/or dependencies are potentially material to your business?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | p.42, 43, 44, 45, 46 |
| <b>Dependencies<sup>4</sup></b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Water availability</li> <li><input type="checkbox"/> Water quality</li> <li><input type="checkbox"/> Energy</li> <li><input checked="" type="checkbox"/> Regulation of physical environment</li> <li><input type="checkbox"/> Regulation of biological environment - Biodiversity</li> <li><input type="checkbox"/> Regulation of waste and emissions</li> <li><input type="checkbox"/> Skills and knowledge</li> <li><input type="checkbox"/> Experience</li> <li><input type="checkbox"/> Workforce availability</li> <li><input type="checkbox"/> Health of workers</li> <li><input type="checkbox"/> Social networks and cooperation</li> <li><input type="checkbox"/> Propriety rights</li> <li><input checked="" type="checkbox"/> Social acceptance and trust</li> <li><input type="checkbox"/> Law and order</li> <li><input type="checkbox"/> Accessibility to infrastructure &amp; technology</li> </ul> <p>Other: description</p> <p>Other: description</p><br><b>Impact drivers</b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Water use</li> <li><input type="checkbox"/> Terrestrial</li> <li><input checked="" type="checkbox"/> GHG emissions</li> <li><input type="checkbox"/> Pesticide, herbicide and fertilizer use</li> <li><input type="checkbox"/> Fertilizer use</li> <li><input type="checkbox"/> Soil use</li> <li><input type="checkbox"/> Solid waste</li> </ul> |                      |

<sup>4</sup> This is an indicative list of material dependencies and impact drivers to help you to identify those material to your assessment. You might have others that you can add and choose



- ☐ Livestock conditions
- ☐ Nutritional content of food
- ☐ Use of substances harmful to consumers
- ☒ Food safety practices
- ☐ Employee health and safety conditions
- ☐ Salaries and benefits
- ☐ Workers' living conditions
- ☐ Labor rights
- ☐ Gender rights
- ☐ Workers' representation
- ☒ Food security
- ☒ Food loss or waste
- ☐ Integration of workforce into communities
- ☐ Benefit sharing with indigenous communities
- ☐ Productivity
- Other: description
- Other: description

|                                                                                                             |      |
|-------------------------------------------------------------------------------------------------------------|------|
| 2. Which internal and/or external stakeholders will you engage in your materiality assessment? <sup>5</sup> | p.48 |
|-------------------------------------------------------------------------------------------------------------|------|

Workers, managers and community outreach officers

|                                                                                       |      |
|---------------------------------------------------------------------------------------|------|
| 3. Which criteria will you use for your materiality assessment (if any)? <sup>6</sup> | p.47 |
|---------------------------------------------------------------------------------------|------|

- ☒ Operational
- ☒ Legal and regulatory
- ☐ Financing
- ☒ Reputational and marketing
- ☒ Societal
- Description

5. Complete the materiality matrix on the next page, the input your prioritized list of material impact drivers/dependencies that will be brought forward to the Measure and Value stage

1. Water use
2. Food safety practices
3. Food security
4. Regulation of physical environment (climate change)

<sup>5</sup> This refers to the criteria that will help you to choose which impact drivers/dependencies you will prioritize to measure and value. Many businesses might have their own materiality assessment already in place.

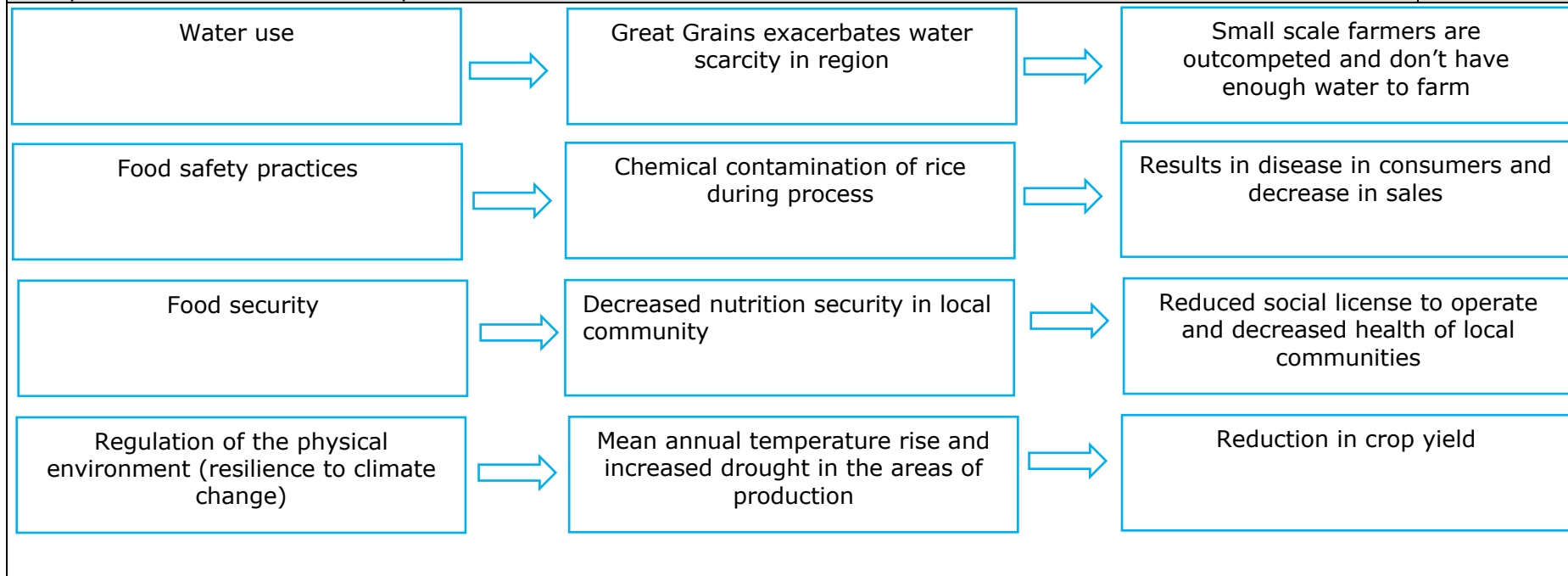
<sup>6</sup> This refers to the criteria that will help you to choose which impact drivers/dependencies you will prioritize to measure and value. Many businesses might have their own materiality assessment already in place. You might choose to use the criteria of the risk and opportunities categories: operational, legal and regulatory, financing, reputational and marketing, societal

| 6. Materiality Assessment                           |                                          |                      |                          |                    |                        |
|-----------------------------------------------------|------------------------------------------|----------------------|--------------------------|--------------------|------------------------|
|                                                     | <b>Materiality criteria <sup>7</sup></b> |                      |                          |                    |                        |
| <b>Material impact driver or dependency</b>         | Operational                              | Legal and regulatory | Reputational & marketing | Societal           | Include in assessment? |
| Water use                                           | HIGH materiality                         | HIGH materiality     | HIGH materiality         | HIGH materiality   | YES                    |
| GHG emission                                        | LOW materiality                          | HIGH materiality     | LOW materiality          | MEDIUM materiality | NO                     |
| Food safety practices                               | MEDIUM materiality                       | HIGH materiality     | HIGH materiality         | HIGH materiality   | YES                    |
| Food security                                       | HIGH materiality                         | HIGH materiality     | HIGH materiality         | HIGH materiality   | YES                    |
| Food loss or waste                                  | LOW materiality                          | LOW materiality      | MEDIUM materiality       | HIGH materiality   | NO                     |
| Water availability                                  | HIGH materiality                         | LOW materiality      | LOW materiality          | HIGH materiality   | NO                     |
| Regulation of physical environment (climate change) | HIGH materiality                         | HIGH materiality     | MEDIUM materiality       | HIGH materiality   | YES                    |
| Social acceptance and trust                         | LOW materiality                          | HIGH materiality     | HIGH materiality         | HIGH materiality   | NO                     |

<sup>7</sup> Fill in the criteria you selected in question 3. You may not need all the columns. Rank each impact driver/ dependency along the criteria selected as "not material", "low material" "medium material" or "high material". In the last column, decide if this will be included in the assessment.

6. Draw simple pathways for those material impact drivers/dependencies to understand the related changes in capitals and possible value of their consequence

p.43



# MEASURE AND VALUE STAGE HOW?



## Step 05: Measure impact drivers and/or dependencies

### Question that this Step will answer

### Actions

How can your impact drivers and/or dependencies be measured?

5.2.1 Map your activities against impact drivers and/or dependencies

5.2.2 Define which impact drivers and/or dependencies indicator you will use

5.2.3 Identify how you will measure impact drivers and/or dependencies

5.2.4 Collect data

### Outputs that you should achieve from this Step:

- Map of activities of the value chain against impacts drivers and/or dependencies
- A list of indicators for each material impact driver and/or dependency associated with the chosen business activities, in accordance with the chosen organizational focus and value-chain boundary.
- Available data and data gaps identified

| Template to fill                                                               |                                                                    |                                                        |                                            | p.55, 56, 57, 58, 59, 60                                                     |
|--------------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------|------------------------------------------------------------------------------|
| Material impact driver or dependency<br>(copy it from prioritized list step 5) | Indicator <sup>8</sup> (s) or intermediate                         | Indicator unit                                         | Data sources <sup>9</sup>                  | Data uncertainty                                                             |
| 1. Water use                                                                   | Amount of water consumed annually by Great Grains in each location | m3 water/Ha/year                                       | Primary data collected from 3 sample sites | No major gaps identified                                                     |
| 2. Food safety practices                                                       | Use of chemical detergents in cleaning rice                        | Litres (L) industrial detergent per kilogram (Kg) rice | Primary data: Quality Control Department   | Data from standard processes but lack on data in case of incidental episodes |

<sup>8</sup> Based on your prioritized list defined in STEP 4, question 5; define which indicator (or intermediate indicator if necessary) and unit you will measure. This could be a qualitative or quantitative indicator.

<sup>9</sup> Identify how you will obtain the data needed to measure your impact drivers and/or dependencies. You can use primary data (collected by your business or consultants) or secondary data (publications, databases, estimates)

|                                                  |                                          |                                  |                                                   |                                                                 |
|--------------------------------------------------|------------------------------------------|----------------------------------|---------------------------------------------------|-----------------------------------------------------------------|
| <i>3. Food security</i>                          | Price of rice compared to average income | \$/Kg rice                       | Primary data: in-house data from sales department | N/A                                                             |
| <i>4. Regulation of the physical environment</i> | Global mean temperature                  | Degrees celcius change per annum | Secondary - IPCC data on global temperatures      | Global mean temperatures may vary from site specific conditions |

## Step 06: Measure changes in the state of capitals

### Question that this Step will answers      Actions

|                                                                                                                       |                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>What are the changes in the state and trends of capitals related to your business impacts and/or dependencies?</b> | 6.2.1 Identify changes in capitals associated with your business activities and impact drivers |
|                                                                                                                       | 6.2.2 Identify changes in capitals associated with external factors                            |
|                                                                                                                       | 6.2.3 Assess trends affecting the state of capitals                                            |
|                                                                                                                       | 6.2.4 Select methods for measuring change                                                      |
|                                                                                                                       | 6.2.5 Undertake or commission measurement                                                      |

### Outputs that you should achieve from this Step:

- A list of the changes in capitals that are material to your business, in relation to your impacts and/or dependencies, based on your chosen organization focus and value chain boundary. These changes should be expressed through qualitative or quantitative data.
- Likelihood-weighted estimates of the attribution of change, where relevant.

| Template to fill                     |                                                                    |                                                                                 |                                                   |                                                        |                                   |                                                                                                    | p.72, 73, 74, 75, 76, 77, 78, 79, 80                                                                            |
|--------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| STEP 5 (copy from step 4 & 5)        |                                                                    | STEP 6                                                                          |                                                   |                                                        |                                   |                                                                                                    |                                                                                                                 |
| Material impact driver or dependency | Indicator                                                          | Change in capitals resulting from the impact driver/dependency <sup>10</sup>    | Method for measuring capital change <sup>11</sup> | Indicator for change (units)                           | Data sources                      | Data uncertainty                                                                                   | Summary of findings <sup>12</sup>                                                                               |
| 1. Water use                         | Amount of water consumed annually by Great Grains in each location | Natural capital: reduced water availability                                     | Life Cycle Impact Assessment                      | m3 equiv./m3                                           | Secondary data                    | Secondary data used based on modelling techniques but considering local context at watershed level | Three locations were measured: 2 locations showed a higher change in water scarcity than the third              |
| 2. Food safety practices             | Use of detergent in washing rice before packaging                  | Human capital: Increase in concentration of toxic substances in final products. | Lab analysis                                      | Micrograms of detergent per 100 grams of final product | Primary data                      | No significant uncertainties                                                                       | The concentration of toxic substances in final products is higher than thresholds allowed by health authorities |
| 3. Food security                     | Decrease availability of nutritious food for local community       | Social & human capital: increase price of basic food basket                     | National statistics                               | % increase in price of basic basket                    | Primary data: national statistics | Secondary data based on averages                                                                   | Increase in prices of rice is having significant impact on access to basic products for local community         |

<sup>10</sup> Indicate to which capital (natural, human, social, produced) this change refers

<sup>11</sup> To measure change, you can undertake direct measurement or modeling methods

<sup>12</sup> You will be able to complete this summary of findings after undertaking or commissioning the measurement. To measure the change in capitals, you need to refer back to the baseline selected in step 03. You might also need to assess external factors that affect the state of capitals.

|                                                     |                              |                                                                                                                     |                                                                                           |                 |                                     |                              |                                                                                              |
|-----------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------|-------------------------------------|------------------------------|----------------------------------------------------------------------------------------------|
| 4.<br><i>Regulation of the physical environment</i> | Global mean temperature rise | Natural capital:<br>Increased temperature in production zone<br>Increased occurrence and length of drought periods. | Secondary data of measurement temperature in production sites from local weather stations | Degrees celcius | Primary data collection by business | No significant uncertainties | Historical data shows that there has been on average a 0.2* rise, and in some areas up to 2* |
|-----------------------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------|-------------------------------------|------------------------------|----------------------------------------------------------------------------------------------|

## Step 07: Value impacts and/or dependencies

**Question that this Step will answers**      **Actions**

|                                                                        |                                                                               |
|------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>What is the value of your capitals impacts and/or dependencies?</b> | 7.2.1 Define the consequences of impacts and/or dependencies                  |
|                                                                        | 7.2.2 Determine the relative significance of associated costs and/or benefits |
|                                                                        | 7.2.3 Select appropriate valuation techniques                                 |
|                                                                        | 7.2.4 Undertake or commission valuation                                       |

### **Outputs that you should achieve from this Step:**

- A completed valuation (whether qualitative, quantitative, or monetary) of costs and benefits.
- Documentation of all key assumptions, data sources, limitations, methods used, and resulting values<sup>13</sup>.

---

<sup>13</sup> Annex A, p.117 of the Guidelines provides you with a list of frameworks, tools, databases that can be useful for the valuation phase. P. 84, 85, 86, 87 of the Natural Capital Protocol also offers a useful summary of different valuation techniques for natural capital



| Template to fill                     |                                                                    |                                                                                 |                                                                                                                                   |                   |                                                                                 |                                                                            |
|--------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| STEP 5<br>(copy from step 5)         |                                                                    | STEP 6<br>(copy from step 6)                                                    | STEP 7                                                                                                                            |                   |                                                                                 |                                                                            |
| Material impact driver or dependency | Indicator                                                          | Change in capitals resulting from the impact driver/dependency                  | Planning phase                                                                                                                    |                   |                                                                                 | Results of valuation                                                       |
|                                      |                                                                    |                                                                                 | Consequences of impact drivers or dependencies on business or society                                                             | Type of valuation | Chosen valuation technique                                                      | Value                                                                      |
| 1. Water use                         | Amount of water consumed annually by Great Grains in each location | Natural capital: reduced water availability                                     | <b>Impact on society:</b><br>Impact on food security due to reduction of water availability for irrigation (DALY/m <sup>3</sup> ) | Monetary          | Value transfer from DALY valuation studies based on contingent valuation method | Location A: 0.34 \$/Ha<br>Location B: 1.22 \$/Ha<br>Location C: 0.64 \$/Ha |
|                                      |                                                                    |                                                                                 | <b>Impact on business:</b><br>Long term depletion of local water stock incurs costs for Great Grains in the future.               | Monetary          | Projected market prices for water                                               | \$3.20/L in 2021                                                           |
| 2. Food safety practices             | Use of detergent                                                   | Human capital: Increase in concentration of toxic substances in final products. | <b>Impact on society:</b><br>Increased prevalence of disease in consumers                                                         | Quantitative      | Number of people who reported being ill via a consumer survey                   | 4% consumers reported being ill                                            |
|                                      |                                                                    |                                                                                 | <b>Impact on business:</b><br>Loss of trust from consumers and potential lower sales                                              | Quantitative      | Decrease in sales                                                               | 50% decrease in sales after local health authorities                       |

|                                                                                       |                                                               |                                                                                                                  |                                                                  |              |                                                                                              | revealed<br>source of<br>contamination                            |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <i>3. Food security</i>                                                               | Decreased availability of nutritious food for local community | Social & human capital:<br>Change in health of workforce and local community. .                                  | <b>Impact on society:</b><br>decrease health of community        | Quantitative | Modelling community health based on worker's health check results (projected through family) | 14% increase in number of people with poor nutrition              |
|                                                                                       |                                                               |                                                                                                                  | <b>Impact on business:</b><br>decrease productivity of workforce | Monetary     | Market price for hours lost due to decrease in productivity                                  | 10% of annual salary per employee                                 |
| <i>4. Regulation of the physical environment (ability to adapt to climate change)</i> | Global mean temperature rise                                  | Natural capital: Increased temperature in production zone<br>Increased occurrence and length of drought periods. | <b>Impact on society:</b> N/A                                    | N/A          | N/A                                                                                          | N/A                                                               |
|                                                                                       |                                                               |                                                                                                                  | <b>Impact on business:</b><br>Yields are reduced due to droughts | Monetary     | Market valuation                                                                             | Projected \$2 million loss by 2025 due loss of crops from drought |

## APPLY STAGE WHAT NEXT?



### Step 08: Interpret and test the results

**Question that this Step will answer**

|                                                                                         |                                                              |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>How can you interpret, validate, and verify your assessment process and results?</b> | 8.2.1 Test key assumptions                                   |
|                                                                                         | 8.2.2 Identify who is affected                               |
|                                                                                         | 8.2.3 Collate results                                        |
|                                                                                         | 8.2.4 Validate and verify the assessment process and results |
|                                                                                         | 8.2.5 Review the strengths and weaknesses of the assessment  |

#### Outputs that you should achieve from this Step:

A summary of:

- Results collated in a way that makes sense and can be interpreted internally and for other relevant audiences
- Key messages, caveats, assumptions, and uncertainties, including the results of sensitivity analysis if appropriate
- Output(s) from validation and internal/external verification (if appropriate) of the assessment process and results, including an objective acknowledgement of key assumptions and uncertainties around the results
- Notes on the review process itself, including how critical assumptions were tested, what level of confidence was deemed necessary, and why

| Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Pages     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. What are your findings?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | p.100     |
| <b>Water use:</b> some areas of production use a lot of water compared to local water availability; which impact negatively on farming productivity of local farmers, leading to bad local reputation<br><b>Food safety practices:</b> the contamination event affected consumer trust but that certain measures would rectify this<br><b>Food security:</b> Lack of nutrition affects worker productivity, and retaining some export can help remediate this effect<br><b>Regulation of physical environment:</b> Climate change will affect production |           |
| 2. Did you test key assumptions and conduct a sensitivity analysis? If so, do your results vary from your initial results?                                                                                                                                                                                                                                                                                                                                                                                                                               | p.99, 100 |
| Key assumptions were tested for regulation of physical environment (climate), testing different prediction of temperature increase in the future, as well as fluctuations in market prices for nutritious foods. Results varied substantially owing to the volatility of market prices in food insecure regions, and the novelty of the carbon market                                                                                                                                                                                                    |           |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 3. How do you plan to present and interpret your results?                                                                                                                                                                                                                                                                                                                                                                                                                            | p.101           |
| The findings of this assessment will be translated into infographics in an attractive power-point presentation to easily communicate to all different departments in the organisation, as well as integrated into board papers                                                                                                                                                                                                                                                       |                 |
| 4. Who is affected by the results of the assessment?                                                                                                                                                                                                                                                                                                                                                                                                                                 | p.101           |
| This result will affect the managers who will have to adapt their operations in response to the information uncovered in the assessment, as well as the local community and farmers who may benefit from the application of the results, and the consumers who were affected by the contamination.                                                                                                                                                                                   |                 |
| 5. What were the key strengths and weaknesses of your assessment?                                                                                                                                                                                                                                                                                                                                                                                                                    | p.102, 103, 104 |
| <p><b>Strengths:</b> considering all capitals, using primary data to measure the impact drivers and dependencies</p> <p><b>Weakness:</b> For water use, only three sites were assessed and then data extrapolated to the rest of the business, creating uncertainties. The gap in data of people affected by the contamination could significantly change the results. However, the level of confidence and robustness of the assessment is good enough to take better decisions</p> |                 |
| 6. With whom, and how, will you share these learnings and conclusions?                                                                                                                                                                                                                                                                                                                                                                                                               | p.101           |
| Internally, through briefing documents and a workshop for key decision makers involved in writing a new strategy to respond to these issues.                                                                                                                                                                                                                                                                                                                                         |                 |

## Step 09: Take Action

**Question that this Step will answer**      **Actions**

|                                                                                        |                                                             |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------|
| <b>How will you apply your results and integrate capitals into existing processes?</b> | 9.2.1 Apply and act upon the results                        |
|                                                                                        | 9.2.2 Communicate internally and externally                 |
|                                                                                        | 9.2.3 Make capitals assessments part of how you do business |

### Outputs that you should achieve from this Step:

- Actions that you will take as a result of the assessment
- A communication plan
- A plan for making capitals assessments part of how you do business

| Questions STEP 9                                     |                                                                                                                                   | Pages |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------|
| Material impact driver/dependency (copy from step 4) | 1. How will you apply and act upon the result?                                                                                    |       |
| 1. Water use                                         | To create a new water use strategy and engage actively with impacted farmers to build a water stewardship scheme in the watershed |       |
| 2. Food safety practices                             | To communicate our actions clearly externally                                                                                     |       |
| 3. Food security                                     | To contribute more actively to food security in the region of operation by retaining exports for local area                       |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>4. <i>Regulation of the physical environment (ability to adapt to climate change)</i></p>                                                                                                                                                                                                                                                                                                                                                                        | <p>To explore potential reforestation of sites in high temperature areas<br/>To trial the use of new rice variants, more resistant to drought</p> |
| <p>2. Which decisions have you or will you make based on the results of the assessment?</p>                                                                                                                                                                                                                                                                                                                                                                         | <p>p. 107, 108, 109</p>                                                                                                                           |
| <p>Business decided to look into an Payment for Ecosystem Services schemes to diversify income sources from the reforestation around their production sites, so as to reduce the high temperatures and improve working conditions</p> <p>Decided to carry out a stakeholder engagement to identify ways to address food security without outcompeting small scale farmers</p> <p>Decided to carry out a water valuation before expanding to any future sites</p>    |                                                                                                                                                   |
| <p>3. How will your assessment inform your business strategy?</p>                                                                                                                                                                                                                                                                                                                                                                                                   | <p>p. 112, 114, 115</p>                                                                                                                           |
| <ul style="list-style-type: none"> <li>• Include the water use strategy into global business strategy.</li> <li>• Include the contribution to food security into business Corporate Social Responsibility</li> <li>• Set target for reforestation around production sites</li> <li>• To include water use, food safety practice and climate change into the responsibility of the risk management department and monitor those indicators every 6 months</li> </ul> |                                                                                                                                                   |