

Australian Agricultural  
Sustainability Framework

# Community of Practice Exchange

Canberra 20-21 March 2024



National  
Farmers  
Federation

Australian  
Agricultural  
Sustainability  
Framework



**Australian Government**

**Department of Agriculture,  
Fisheries and Forestry**

# Building out the Framework

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AFI's role in AASF project:

# Developing Prototype AASF Reports

Purpose: create **prototype reports** that illustrate a snapshot of Australian agricultural sustainability via **indicators (i.e. measurable states)** aligned to the 17 AASF Principles and 43 Criteria

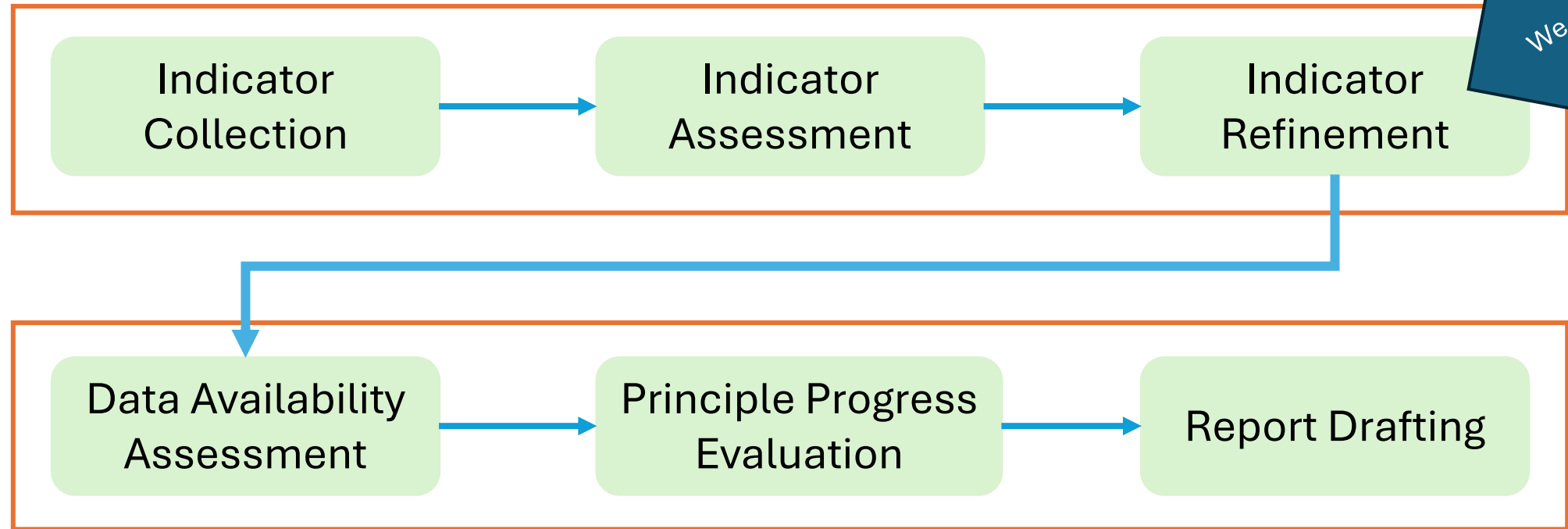
NB: A prototype report does *not* represent AASF collecting data to populate a report with quantitative sustainability goals



# Project Approach



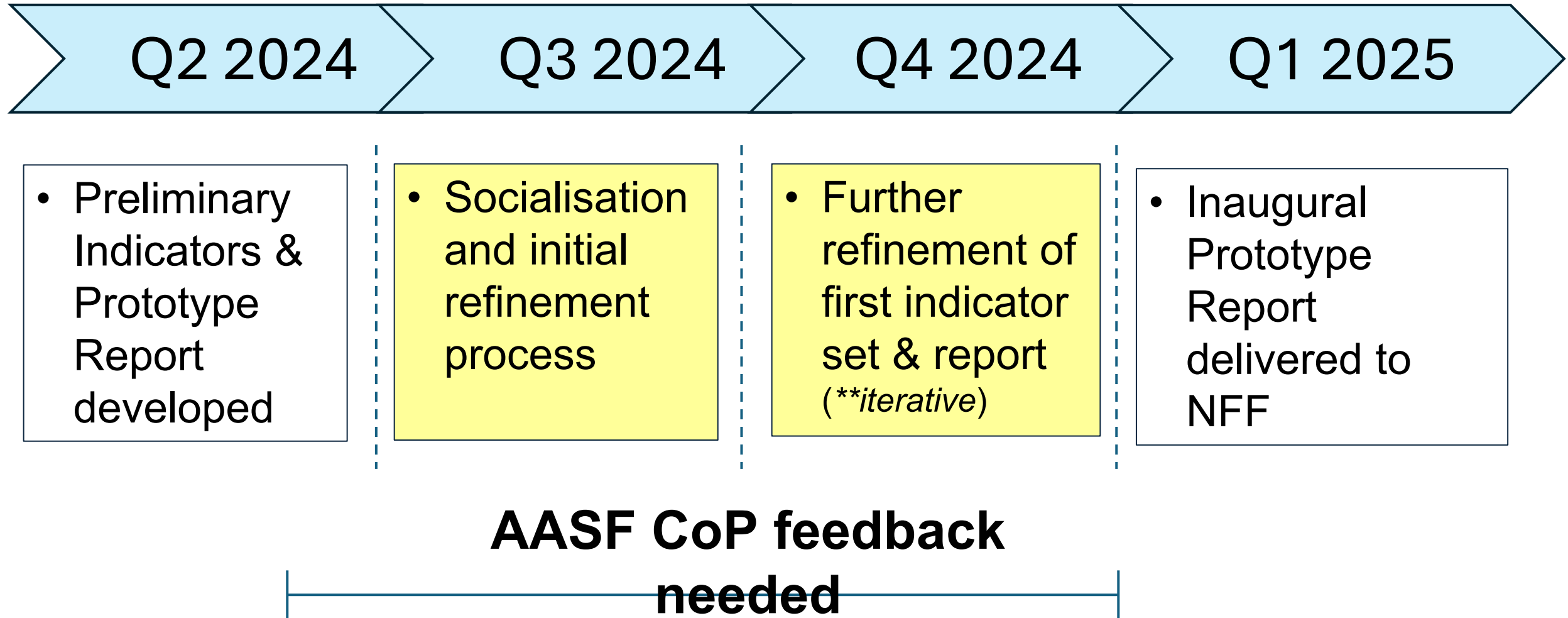
## 1. *Develop Indicators*



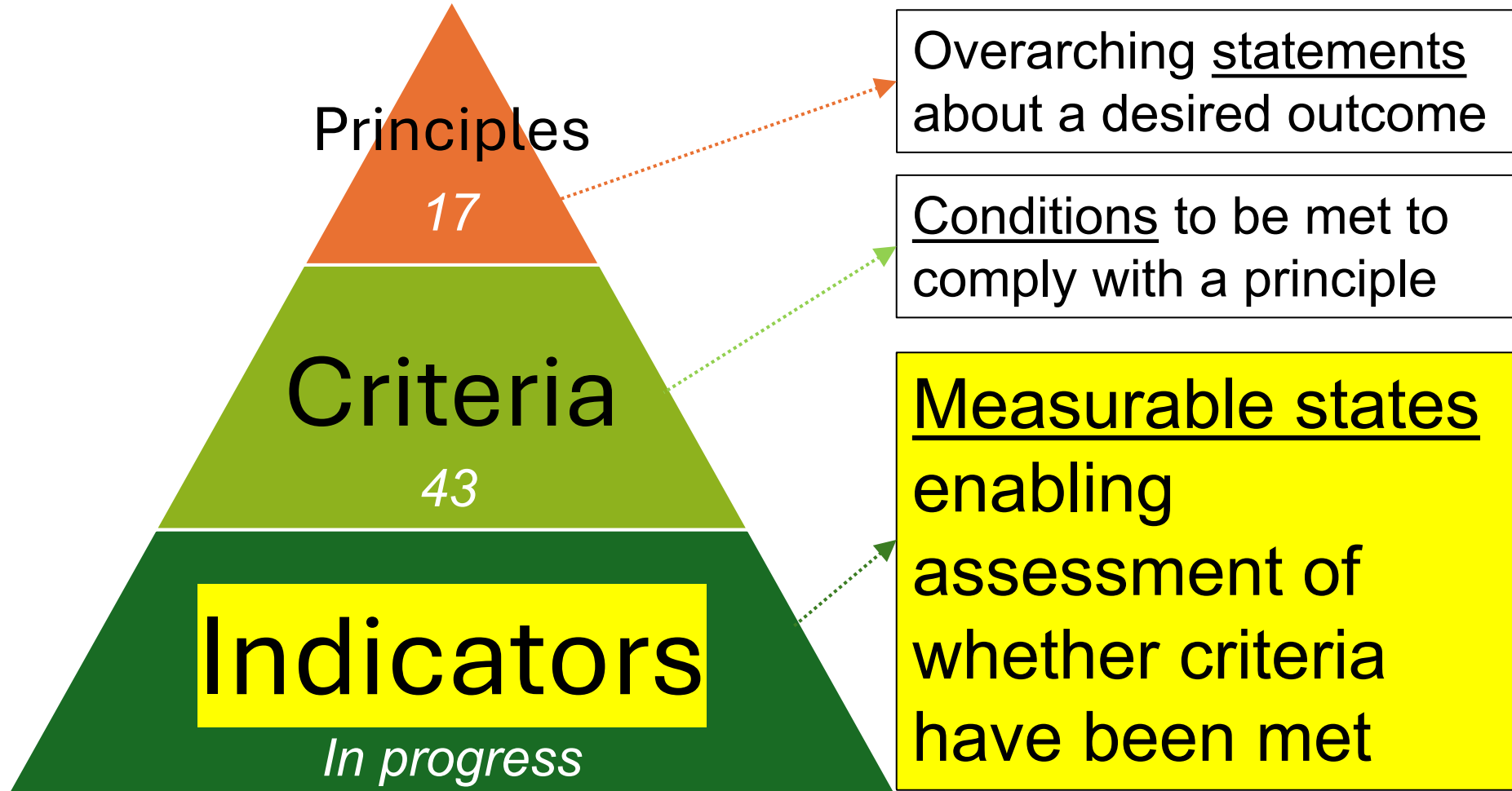
## 2. *Develop Prototype Report*



# Timeline and Key Events



# AASF Structural Taxonomy: PCI



# Indicator / Metric / Measure



- These 3 terms are often interchangeable.
- We are using “**Indicator**” to describe **measurable states enabling assessment** of whether AASF criteria are met.
- Much of the supporting language for evaluated indicators could be classified as a *metric* or *measurement*.

**Metrics:** measures of quantitative assessment which provide context via comparative data

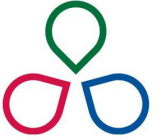
**Measures:** non-contextual numbers, figures, descriptions (i.e. data)





- Brief overview re: breadth of work to date
- Deep dive on 4 draft indicators for 3 different principles (1 from each theme)
- Qs for CoP:
  - Does the language and intention of the draft indicators reflect your expectations?
  - Are there any stumbling blocks?





## How did we choose the initial sets of draft indicators?

Criteria	Description	Example
<b>National Applicability</b>	Applicability to majority of regions and production systems in Australia (for a specific commodity)	<i>The indicator is not specific to just one region or production system</i>
<b>Measurability</b>	Ability to measure continuous improvement against AASF Principle	<i>The indicator can be used to measure improvement in a production system tied to an AASF principle</i>
<b>Policy &amp; Market Relevance</b>	Relevance to current and future sustainability demands found in government policy and markets actors	<i>The indicator can be linked directly to the sustainability agendas and existing reporting requirements of governments and market actors</i>
<b>Clarity</b>	Clarity of use/intent for potential AASF users	<i>The intended outcome and intention of the indicator is clearly stated and easily interpreted by AASF users</i>
<b>Alignment</b>	Alignment with domestic and international frameworks or standards	<i>The indicator is present, in some form, in multiple frameworks and standards within or outside Australia</i>





# Indicators: P1

## AASF P1: Emissions reduction | Net anthropogenic emissions are limited to minimise climate change

Indicator	Contributing Indicators	Source
Net Industry Emissions	Net emissions emitted by beef industry	Australian Beef Sustainability Framework
	Percentage total CO2e reduced by beef industry from a 2005 baseline	Australian Beef Sustainability Framework
	Net emissions generated by sheep industry (farm and sheepmeat processing)	Australian Sheep Sustainability Framework
	Australian cotton farm GHG emissions, kg CO2-e / kg lint	Cotton Research and Development Corporation
	Amount of greenhouse gases produced	Natural Capital Measurement Catalogue
	Global Farm Metric Framework Aim 1 – Climate	Global Farm Metric
	Global Farm Metric Framework Aim 13 – positive impacts of farming on people and planet increase and are valued	Global Farm Metric
SDG 13: Take urgent action to combat climate change and its impacts	U.N. Sustainable Development Goals	
Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures	
Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Taskforce on Climate-Related Financial Disclosures	

Industry emissions intensity	Energy use GJ/unit of production	Australian-Grown Horticulture Sustainability Framework
	Operations demonstrate, based on record keeping, reductions in overall energy use or non-renewable energy use per unit of grown or processed product	Sustainable Agriculture Network
	Percent reduction in GHG emissions intensity	Australian Dairy Sustainability Framework
	Australian cotton farm GHG emissions, kg CO2-e / kg lint	Cotton Research and Development Corporation
	Productive output per unit energy input	Natural Capital Measurement Catalogue
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Taskforce on Climate-Related Financial Disclosures
	Global Farm Metric Framework Aim 1 – Climate	Global Farm Metric
Global Farm Metric Framework Aim 13 – positive impacts of farming on people and planet increase and are valued	Global Farm Metric	
SDG 13: Take urgent action to combat climate change and its impacts	U.N. Sustainable Development Goals	
Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures	

Share of energy from renewables	Share of energy from renewable sources	Australian-Grown Horticulture Sustainability Framework
	Amount of non-renewable fuels used, by type (no indicator at this time, though the Framework says that it will investigate a renewable energy indicator for the next iteration)	Natural Capital Measurement Catalogue
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Taskforce on Climate-Related Financial Disclosures
Emissions per kg liveweight livestock	Emissions per kg liveweight when raising beef	Taskforce on Nature-Related Financial Disclosures
	Emission intensity per kg liveweight (LW) when sheep	Taskforce on Nature-Related Financial Disclosures
	Kg feed per kg liveweight produced	Global Farm Metric Framework Aim 1 – Climate

Emissions per kg liveweight livestock	Global Farm Metric Framework Aim 13 – positive impacts of farming on people and planet increase and are valued	Global Farm Metric
	SDG 12.2: By 2030, achieve the sustainable management and efficient use of natural resources	U.N. Sustainable Development Goals
	SDG 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems ...	U.N. Sustainable Development Goals
Carbon sequestration in on-farm vegetation per area	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Taskforce on Climate-Related Financial Disclosures
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Taskforce on Climate-Related Financial Disclosures
	Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures
Industry Nitrous Oxide Emissions	Productive output per unit energy input	Natural Capital Measurement Catalogue

Share of energy from renewables	Emissions per tonne Hot Standard Carcase Weight	Australian Beef Sustainability Framework
	Global Farm Metric Framework Aim 1 – Climate	Global Farm Metric
	Global Farm Metric Framework Aim 13 – positive impacts of farming on people and planet increase and are valued	Global Farm Metric
Emissions per kg liveweight livestock	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Taskforce on Climate-Related Financial Disclosures
	Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures
	SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all	U.N. Sustainable Development Goals
Carbon sequestration in on-farm vegetation per area	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Taskforce on Climate-Related Financial Disclosures
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Taskforce on Climate-Related Financial Disclosures
	Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures
Industry Nitrous Oxide Emissions	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Taskforce on Climate-Related Financial Disclosures
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Taskforce on Climate-Related Financial Disclosures
	Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures

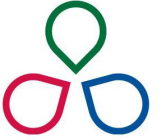
9 draft indicators currently being assessed for P1 / C1-3

Indicator ID = combining sources to find common language & purpose

Industry Nitrous Oxide Emissions	Agricultural soils – Direct soil emissions – Inorganic fertilisers	Australian-Grown Horticulture Framework
	Greenhouse gas emissions: Agricultural soils – Indirect soil emissions including atmospheric deposition, fertiliser and nitrogen leaching and run-off fertiliser	Australian-Grown Horticulture Framework
	Nitrous oxide emissions from soils	Field to Market
Carbon sequestration in on-farm vegetation per area	SDG 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems ...	U.N. Sustainable Development Goals
	Global Farm Metric Framework Aim 1 – Climate	Global Farm Metric
	Global Farm Metric Framework Aim 17 – Monitoring the impacts of farm practices on the farm and on the outside world drives constant improvement	Global Farm Metric
Industry Nitrous Oxide Emissions	Global Farm Metric Framework Aim 7 – Farm inputs are sustainably and ethically produced and are safe and suitable for the farm system and its environment. Use of non-consumables is designed to maximise lifespan, re-use, recycling and safe disposal	Global Farm Metric
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks	Taskforce on Climate-Related Financial Disclosures
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Taskforce on Climate-Related Financial Disclosures
Carbon sequestration in on-farm vegetation per area	Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	Taskforce on Climate-Related Financial Disclosures
	Greenhouse Gas Emissions	Taskforce on Nature-Related Financial Disclosures
Industry Nitrous Oxide Emissions	Percent land area receiving adequate fertiliser/soil ameliorant application, by type	Natural Capital Measurement Catalogue

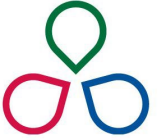


# Indicators: P1



AASF i2	Existing sustainability indicators and supporting language	Derived from ...
<b>(DRAFT ONLY)</b>  <b>Industry emissions intensity</b>	Energy use GJ/unit of production	<i>Australian-Grown Horticulture Sustainability Framework</i>
	Operations demonstrate reductions in overall energy use or non-renewable energy use per unit of grown or processed product	<i>Sustainable Agriculture Network</i>
	Percent reduction in GHG emissions intensity	<i>Australian Dairy Sustainability Framework</i>
	Australian cotton farm GHG emissions, kg CO <sub>2</sub> -e / kg lint	<i>Cotton Research and Development Corporation</i>
	Productive output per unit energy input	<i>Natural Capital Measurement Catalogue</i>
	Absolute Scope 1, Scope 2, and Scope 3; emissions intensity (MT of CO <sub>2</sub> e)	<i>Taskforce on Climate-Related Financial Disclosures</i>
	SDG indicator 13.2.2: Total greenhouse gas emissions per year	<i>U.N. SDGs</i>





**C1:** GHG emissions are reduced throughout lifecycle

**C2:** Carbon emissions reduced ...

**C3:** GHG emissions are offset ..

i1: Net Industry Emissions

i2: Industry emissions intensity

i3: Emissions per kg liveweight livestock

i4: Emissions per tonne HSCW livestock

i5: Industry Nitrous Oxide Emissions

i6: Share of energy from renewables

i7: Carbon sequestration in on-farm vegetation per area

i8: Industry participation in registered carbon credits schemes

i9: Emissions offset by industry (e.g. via credits purchase)





**C1:** GHG emissions are reduced throughout lifecycle

**C2:** Carbon emissions reduced ...

**C3:** GHG emissions are offset ..

i1: Net Industry Emissions

i2: Industry emissions intensity

i3: Emissions per kg liveweight livestock

i4: Emissions per tonne HSCW livestock

i5: Industry Nitrous Oxide Emissions

i6: Share of energy from renewables

i7: Carbon sequestration in on-farm vegetation per area

i8: Industry participation in registered carbon credits schemes

i9: Emissions offset by industry (e.g. via credits purchase)





# Indicators: P1



## AASF PRINCIPLE 1: Emissions reduction

P1: Net anthropogenic emissions are limited to

**Criteria 1:** GHG emissions are reduced throughout lifecycle

i1: Net industry emissions

i2: Industry emissions intensity

i3: Emissions per kg liveweight livestock

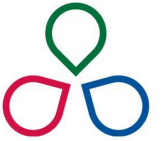
**Criteria 3:** Where necessary, GHG emissions are offset by purchasing recognised credits or participating in recognised projects

i9: Emissions offset by industry (e.g. via credits purchase)

Does the language and intention of these draft indicators reflect your expectations?

Are there any stumbling blocks?





Indicator	Unit	Source(s)	Reference Source	Most Recent Data Year	Progress	Criteria
Percent compliance with legislated animal welfare standards	% compliance with legislated animal welfare standards	Australian Dairy Sustainability Framework	Survey (unknown)	2019	98% out of 100% goal	C26, C27, C28
Percent adoption of relevant recommended industry practices for animal care (multiple)	% (varied across indicators in Appendix 8 of ADSF)	Australian Dairy Sustainability Framework	Survey (unknown)	2019	Varied	C26, C27, C28
Percentage of industry using pain relief for invasive husbandry practices	% industry using pain relief for invasive husbandry practices	Australian Beef Sustainability Framework	<a href="#">E.SUS.0005 -MLA Project Proof Beef</a>	2021	N/A	C26
Percentage of cattle processed through an establishment accredited under the Australian Livestock Processing Industry Animal Welfare Certification System (AAWCS)	% cattle processed through an establishment accredited under the AAWCS	Australian Beef Sustainability Framework	MLA, Aggregated slaughter numbers from accredited establishments	2022	N/A	C28
Percentage of cattle processed through an Exporter Supply Chain Assurance System (ESCAS) accredited establishment	% cattle processed through an ESCAS	Australian Beef Sustainability Framework	DAFF data pulled by ABSF	2022	N/A	C26, C27, C28
Total mortality rate of cattle exported on sea voyages	Mortality rate	Australian Beef Sustainability Framework	DAFF data pulled by ABSF	2022	N/A	C27, C28
Total mortality rate of cattle on domestic road transport (TBC)	Mortality rate	Australian Beef Sustainability Framework	Data for this indicator is being developed	N/A	N/A	C27, C28
Percentage producer awareness of the Australian Animal Welfare Standards for Cattle	% awareness	Australian Beef Sustainability Framework	LPA Audits	2022	N/A	C26, C27, C28
Percentage compliance with National Feedlot Accreditation Scheme (NFAS) Animal Welfare Requirements	% compliance	Australian Beef Sustainability Framework	NFAS Audits	2022	N/A	C26
Percentage of feedlot capacity with access to shade	% of total feedlot capacity	Australian Beef Sustainability Framework	ALFA Survey	2022	N/A	C26
Percentage/Number of producers undertaking low stress stock handling training	Unclear	Australian Beef Sustainability Framework	<a href="#">E.SUS.0005 -MLA Project Proof Beef</a>	2021	N/A	C26
Percent of pig producers aware of and implementing welfare standards and guidelines	% of total pig producers	Australian Pork Sustainability Framework	Producer surveys	No data collected yet	Goal of 100%	C26, C27, C28
Percent of pigs transported safely	% of total pigs	Australian Pork Sustainability Framework	Abattoir surveys	No data collected yet	Goal of 100%	C27
Percent of producers aware of humane killing requirements in standards and guidelines	% of total producers	Australian Pork Sustainability Framework	Producer surveys	No data collected yet	N/A	C28
Percent of producers who use appropriate pain management tools at (X) - three different indicators for mulesing, castration, and tail docking	% of total producers	Aus Sheep Sustainability Framework	National Producer Surveys	2022	N/A	C26
% sheep transported in line with animal welfare standards (fit to load)	% of total sheep	Aus Sheep Sustainability Framework	Data for this indicator is being developed	N/A	N/A	C27
% mortality on ships	% of total sheep	Aus Sheep Sustainability Framework	DAFF data pulled by SSF	2022	N/A	C27, C28
% of producers aware of humane killing requirements in the Australian Animal Welfare Standards & Guidelines (AAWSG) for sheep.	% of total producers	Sheep Sustainability Framework	National Producer Surveys	2022	N/A	C28
% of lambs and sheep slaughtered through an establishment accredited by the Australian Animal Welfare Certification System (AAWCS).	% of total lambs and sheep	Sheep Sustainability Framework	MLA FY2022 - no further identification of source	2022	N/A	C28
Number of stock affected by animal welfare issues	Number	Natural Capital Measurement Catalogue	<a href="#">Natural Capital Assessment – Impacts – Biodiversity and Ecosystems – Animal Welfare</a>	N/A	N/A	C26, C27, C28
Percent of stock unaffected by animal welfare	%	Natural Capital Measurement Catalogue	<a href="#">Natural Capital Assessment – Impacts – Biodiversity and Ecosystems – Animal Welfare</a>	N/A	N/A	C26, C27, C28
SDG 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	N/A	U.N. Sustainable Development Goals	<a href="#">SDG 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</a>	N/A	N/A	C26, C27, C28
Global Farm Metric Aim 10: Livestock are healthy, enjoy a high quality of life, and are resilient to their conditions	N/A	Global Farm Metric	<a href="#">Global Farm Metric Framework</a>	N/A	N/A	C26, C27, C28
Global Farm Metric Aim 14: Negative impacts of farming on people and planet continuously reduce	N/A	Global Farm Metric	<a href="#">Global Farm Metric Framework</a>	N/A	N/A	C26, C27, C28



# Indicators: P12



## AASF PRINCIPLE 12: Animal wellbeing

**P12: Farmed animals are given the best care for whole of life**

**Criteria 27:** Safe transportation of animals is demonstrated

i76: Total mortality rate of livestock on domestic road transport

**Criteria 28:** Humane end-of-life for farmed animals is ensured

i77: Portion of livestock processed through an AAWCS accredited establishment

i78: Portion of livestock processed through an ESCAS accredited establishment

i79: Compliance with NFAS Animal Welfare Requirements

Does the language and intention of these draft indicators reflect your expectations?

Are there any stumbling blocks?





# Indicators: P13



## AASF PRINCIPLE 13: Societal Benefits

P13: Society benefits from the agriculture industry's positive contribution to the community

**Criteria 29:** Industry contributes to local economic growth and social well-being

i82: Total direct employment

i83: Portion of workforce with higher education and/or traineeship and apprenticeship qualifications

i84: Agriculture's contribution to national GDP

**Criteria 31:** Community trust in the industry is upheld

i85: Number of industry-sponsored community events

Does the language and intention of these draft indicators reflect your expectations?

Are there any stumbling blocks?



# Draft Prototype AASF Report



- We need your insight!
- You'll have an opportunity to review when the Preliminary Draft Indicators Report is socialised with the CoP.
- This is a work in progress - nothing is set in stone.
- Your feedback will inform how things are refined for the Preliminary Draft Indicators Report





Australian  
Farm Institute

# Thank you!



Contact us  
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