

# Delta Framework Sustainability Indicators

A common set of environmental, social, and economic indicators to measure sustainability at farm-level across cotton and coffee sectors



## Environmental Indicators

- 1 Use of Highly Hazardous Pesticides (HHPs)**  
Unit: kg active ingredient (a.i.) of HHPs per ha of harvested land
- 2 Pesticide risk indicator**  
Unit: specific model score per ha of harvested land
- 3 Irrigation water management**
  - 3.1 Water extracted for irrigation**  
Unit: water extracted for irrigation (blue water) per ha of harvested land
  - 3.1 Irrigation efficiency**  
Unit: percentage of water actually required for irrigation over water extracted for irrigation
  - 3.3 Water productivity**  
Unit: yield (kg of cotton lint or GBE) per m<sup>3</sup> of water consumed per ha of harvested land
- 4 Topsoil carbon content**  
Unit: grams of organic carbon per tonne soil per ha of harvested land
- 5 Fertiliser use by type and Nitrogen Use Efficiency**  
Unit: kg a.i. of N, P, K per ha of harvested land
- 6 Forest, wetland and grassland converted for crop production**  
Unit: ha of forest, wetland or grassland converted to crop production
- 7 Greenhouse gas emissions**  
Unit: kg CO<sub>2</sub> equivalent per kg seed cotton or coffee cherries



## Economic Indicators

- 8 Yield (average)**  
Unit: kg cotton lint or GBE per ha of harvested land
- 9 Gross margin from crop production**  
Unit: USD per ha seed cotton or GBE  
In future: Living Income
- 10 Price at farmgate** (for premium-based organisations)  
Unit: local currency per tonne of seed cotton or GBE
- 11 Proportion of workers earning a legal minimum wage (or above) by sex and by age**  
Unit: proportion (%) of workers earning a legal minimum wage (or above) over the total number of workers working on the farm by sex and age



## Social Indicators

- 12 Incidence of child labour**  
Unit: number of children aged 5 to 17 years engaged in child labour, by sex and age
- 13 Incidence of forced labour**  
Unit: number of people aged over 17 years engaged in forced labour, by sex and age
- 14 Women's empowerment**  
Unit: Women's Empowerment score
- 15 Frequency of fatalities and non-fatalities on the farm**  
Unit: % of fatalities and non-fatal occupational injuries on farm (while working on the cotton or coffee crop)

Units: GBE coffee Green Bean Equivalent; ha hectare; kg kilogram

[www.deltaframework.org](http://www.deltaframework.org)



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Confederation



Federal Department of Economic Affairs,  
Education and Research EAER  
State Secretariat for Economic Affairs SECO