

Data Checklist

This is a list of questions that will be asked and the farm information to be collected as part of the Global Farm Metric trials.

The trials use a self-assessment Excel tool based on the Global Farm Metric framework to provide a holistic view of farm-level sustainability.

Contact us:

@GFMcoalition

www.globalfarmmetric.org

info@globalfarmmetric.org



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CATEGORY	ASSESSMENT QUESTIONS
Farm information	<p>Systems present on farm (arable, livestock, horticulture, fruit, forage and grassland, etc.)</p> <p>Location (postcode for atmospheric deposition zone and average rainfall)</p> <p>Size of farm and total utilised agricultural area (ha)</p> <p>Cropping areas (type, area, yield (tonnes), by-product yields, quantity brought on farm, sold, sold as value added product and fed to livestock on farm)</p> <p>Grassland areas (forage crops, temporary or permanent pasture, area, clover content, yield)</p> <p>Quantity of plug plants and seeds bought-in or sold (tonnes)</p> <p>Boundary features (length and average width of hedgerows, dry stone walls, ditches, banks)</p> <p>Types of habitats (total area of: woodland, broadleaved and mixed woodland, coniferous woodland, orchards/silvopasture, heathland and shrubland, sparsely vegetated land, wetland, moorland, lakes and ponds, artificial water holding areas, designated non cropped areas, built up land including roads, length and width of rivers/streams etc.)</p> <p>Livestock inventory (type and average number of own and visiting livestock and average live weight. Number brought on farm and sold/sent off farm (inc. deaths), live and dead weight of sold animals)</p> <p>Primary livestock products (quantity brought on farm and quantity sold/sent off farm as primary and/or value-added product (dozens, tonnes, litres))</p> <p>Quantity of bought-in and sold feeds (tonnes)</p> <p>Quantity of bought and sold bedding (tonnes)</p> <p>Quantity of organic manure and inorganic fertiliser bought in and sold (tonnes)</p> <p>Farm workers (number of owners, family members, volunteers, other farm workers)</p> <p>Total hours worked (by different types of farm workers)</p> <p>Green House Gas Emissions (type of assessment, emissions & sequestration (kg CO₂ eq))</p> <p>Renewable energy (produced on farm (kWh))</p>

Climate	<p>Droughts, heatwaves, extreme precipitation events (number experienced over last 5 years)</p> <p>Change in no. of extreme precipitation, dry, hot and cold events 1990–2022 (auto calculated)</p> <p>Change in average annual rainfall 1990–2022 (auto calculated based on location)</p> <p>Change in average annual temperature 1990–2022 (auto calculated based on location)</p> <p>Change in Growing Degree Days (GDD) from 1990–2021 (auto calculated based on location)</p>
Community	<p>Key amenities and farming services & infrastructure (miles travelled and accessibility)</p> <p>Distance to sell products (miles travelled by farmer and/or buyer)</p> <p>Availability of local workers (ease of recruitment for permanent, seasonal & occasional staff)</p> <p>Membership in farming groups (number of active memberships)</p> <p>Public access (length, ha and condition of bridleways, open-access, permissive paths etc)</p> <p>Heritage and designations (presence, area (ha), condition and access to sites of scientific, geological and archaeological interest)</p> <p>Landscape quality (composition of landscape – multiple choice)</p> <p>Delivery of education services (hours, reach, feedback, intent, profitability & importance)</p>
Nature	<p>Soil pollution (lead, copper, cadmium, zinc levels)</p> <p>Water pollution (presence of water bodies, water quality species survey)</p> <p>Air pollution (presence and abundance of indicator lichens on 4 standing trees)</p> <p>Health of farm biodiversity (bird survey – species observed in different habitats)</p> <p>Proportion of natural and agricultural habitats (auto-populated)</p> <p>Connectedness of different farm habitats (multiple choice)</p> <p>Quality of land for farming (Agricultural Land Classification system – % of grade 1–5)</p>
Soil & Water	<p>Depth of majority of soil on farm (UK Soil Observatory map)</p> <p>Soil erosion (visual signs, Visual Evaluation of Soil Structure (VESS test) on 3–5 samples/field)</p> <p>Soil Organic Matter (from LOI for 3 fields at 0–15cm and 0–30cm – optional/if available)</p> <p>Soil biology (number of earthworms – 3–5 samples/field)</p> <p>pH, nutrient and micronutrient levels (samples from 3 fields – optional/if available)</p> <p>Area of water holding habitats (ha – auto-populated)</p>

Governance	<p>Ownership type (multiple choice)</p> <p>Succession plan (multiple choice – agreed, still to be agreed, no plan etc..)</p> <p>Consequences of management decisions (consideration of nature, community & business)</p> <p>Groups involved in decision making (likelihood of involving workers, family, advisors etc)</p> <p>Certification schemes (participation and prioritisation of schemes – multiple choice)</p> <p>External factors affecting management choices (type & degree affected – multiple choice)</p> <p>Availability of external support for resilience and sustainability (multiple choice)</p>
Resources	<p>% of equipment owned or rented in good working condition</p> <p>% of farm infrastructure owned or rented in good working condition</p> <p>% of buildings owned or rented in good repair</p>
Inputs	<p>Use of external inputs (level of use and access to alternatives)</p> <p>Use of common land (level of use and access to alternatives)</p> <p>Use of rented land (level of use and access to alternatives)</p> <p>Use of external infrastructure & equipment (level of use and access to alternatives)</p> <p>Use of shared machinery or equipment (level of use and access to alternatives)</p> <p>Use of rented machinery or equipment (level of use and access to alternatives)</p> <p>Use of contractors (level of use and access to alternatives)</p>
Farmers & Workers	<p>Working days lost to sickness (number of)</p> <p>Experience level of workers (no. workers with 0–2, 2–5, > 5 years' experience)</p> <p>Sufficiency of income from farming activities (multiple choice)</p> <p>Number of salaried employees with second jobs (to your knowledge)</p> <p>Recruitment of different types of new workers (ease of recruitment – multiple choice)</p>
Crops & Pasture	<p>Germination success (% of seeds germinating of dominant crop)</p> <p>Crop and grassland health problems (% of dominant crop and/or grassland affected)</p> <p>Severity of problem (multiple choice)</p> <p>Level of pre-harvest loss (% of dominant crop lost – arable or horticulture)</p> <p>Average lifespan of perennial crops (in years, inc. permanent pasture, orchards, vineyards)</p>

Livestock	<p>% affected by health problems (by livestock group/own and visiting livestock)</p> <p>Severity of health problems (by livestock group/own and visiting livestock — multiple choice)</p> <p>Number of livestock deaths and mortality rate (by livestock group for own and visiting livestock – auto populated)</p> <p>Length of productive life in years (by livestock group)</p> <p>Conception rate (% of adult female animals becoming pregnant for each livestock group)</p>
Products	<p>% of different livestock breeds (for each livestock group)</p> <p>Livestock, crop and farming system diversity (auto calculated)</p> <p>Diversity in sward (if grassland present — multiple choice)</p> <p>Capacity to alter production (multiple choice)</p> <p>Livestock production type (presence and condition of housing, adaptation to local conditions)</p> <p>Crop production type (growing conditions, adaptation of crop to local conditions)</p> <p>Grassland production type (growing conditions, adaptation of grassland to local conditions)</p>
Economics	<p>Economic situation (indication of profit & loss — multiple choice, no figures required)</p> <p>Vulnerability to cost increase of 10% (multiple choice)</p> <p>Ability to carry out necessary investments (multiple choice)</p> <p>Financial flexibility (multiple choice)</p> <p>Diversity of customer base (% of sales income for each customer)</p> <p>Reliance on sales channel (multiple choice)</p>
Outputs	<p>% of non-organic farm waste recycled</p> <p>Quality of products sold (% of high/average/low quality livestock products or crops)</p> <p>Education/training courses offered and accredited (multiple choice)</p> <p>Feedback received (regarding education/training courses — multiple choice)</p> <p>Fuel & fibre product standards (multiple choice)</p>