Bridging data gaps to scale agroecology

Event report on the Tool for Agroecology Performance Evaluation (TAPE)

TAPE + Project activities

Committee on World Food Security (CFS) 54 Side Event | 20 October 2026 | Food and Agriculture Organization of the United Nations (FAO), Rome



Executive summary

The CFS 54 side event examined how TAPE can connect farm-level assessments with research, national monitoring and policy dialogue. Contributions covered methodological improvements under the **TAPE+ project** supported by the **European Union** (Desira+ initiative), preliminary cross-country findings from TAPE pilot phase, digital tools developed to support users, national assessments in Burundi, Cabo Verde and Kenya, and complementary geospatial and transition-monitoring research.

The preliminary synthesis reported **predominantly favourable associations between agroecological transition and sustainability indicators**. Digital developments aim to simplify assessment and analysis, while the national presentations illustrated different approaches to embedding TAPE in country-led evidence processes. The reported implementation and platform-use figures are distinct from the harmonised analytical sample.

Taken together, the presentations highlighted opportunities to strengthen the evidence available for agroecology policy, alongside continuing challenges in comparability, interpretation, data governance and sustained institutional use. Priorities for follow-up included completing and validating national assessments, improving comparability and authorised data access, strengthening research collaboration, and connecting findings with policy dialogue.

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1. Opening perspectives: why evidence matters



The side event was moderated by **Rebbie Harawa**, Leader of the FAO Cropping Systems Cluster. It brought together funding partners, farmer organisations, statistical institutions, researchers and public authorities to discuss how agroecological knowledge can be translated into credible evidence for decisions.

European Union (EU)

Speaking for the EU Delegation in Rome, **Annette Schneegans** stressed that scaling agroecology requires reliable evidence of what works, where, for whom and under which conditions. Such evidence can inform public policies, investment and locally appropriate transition pathways. She



placed TAPE+ within the EU's Development Smart Innovation through Research in Agriculture (DeSIRA+) support to research and innovation, and highlighted progress on methodology, digital tools and national assessments in Burundi, Cabo Verde and Kenya. Her remarks also acknowledged FAO and the long-standing commitment of the McKnight Foundation.

McKnight Foundation



Jane Maland Cady recalled the early discussions that led to TAPE in 2018 and the Foundation's support since its formative stages. Her central message was that what is measured influences what institutions and funders value. Agricultural measurement has long emphasised productivity and efficiency; TAPE makes it possible to consider wider environmental, social, nutritional and economic costs and benefits of food systems. She welcomed the collective progress and the continued improvement of the tool.



Rachel Bezner Kerr highlighted that measuring agroecology is essential because agroecology represents a fundamentally different approach to food systems. She identified three main reasons why agroecology measurement is important: tracking progress toward food system transformation; strengthening the scientific evidence base; and preventing co-optation and preserving agroecology's core values. Overall, Prof. Bezner Kerr emphasized that robust measurement is necessary both to build evidence for policy makers and to ensure agroecological transitions deliver their full transformative potential.



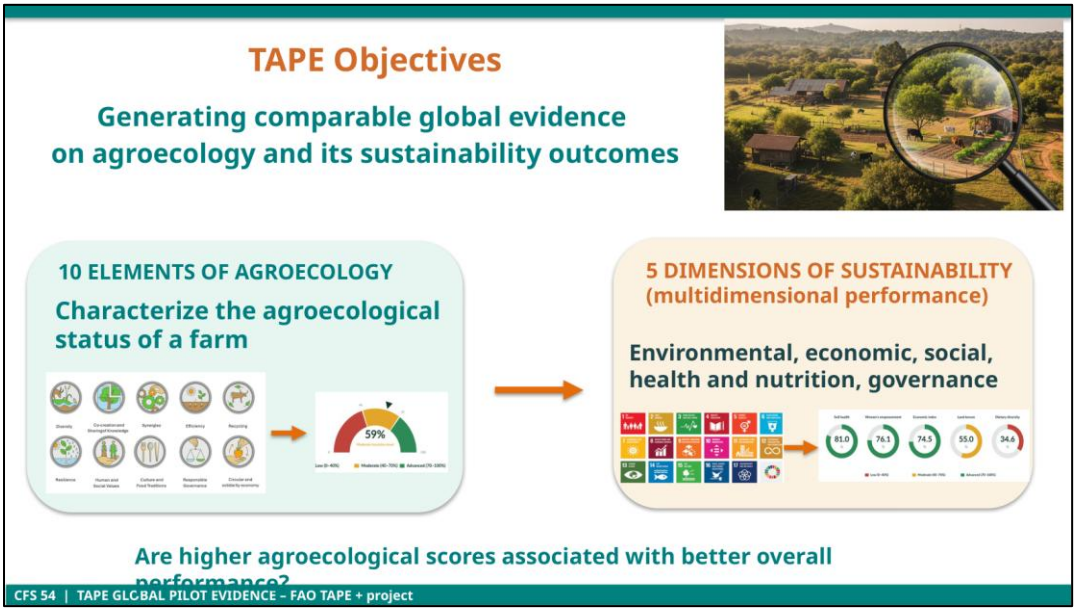
Oliver Oliveros focused on a measurement gap highlighting the mismatch between what matters on the ground and what is measured for policy decisions, indicating that agroecology measurement often receives insufficient support because policy makers rely on standardized indicators (yield per hectare, fertilizer use, etc.) rather than agroecology indicators (biodiversity, resilience, soil health, dietary diversity, social and environmental co-benefits, etc.). To bridge the measurement gap, Oliveros proposed three solutions: develop standardized agroecology metrics; Uuse participatory research approaches; and improve policy and institutional support.

2. TAPE: an assessment framework built with partners



Responding to the opening calls for broader evidence, **Rémi Cluset** explained that FAO developed TAPE following requests from Member countries for metrics capable of capturing agroecology's multiple contributions. It was co-created and tested with researchers, producers' organisations, non-governmental organisations (NGOs) and policymakers. TAPE characterises the agroecological transition of farms using the 10 Elements of Agroecology, and separately assesses performance across five sustainability dimensions. By measuring transition and performance separately, TAPE enables analysis of their relationships rather than assuming that greater transition necessarily produces better outcomes.

The methodology extends beyond a farm questionnaire. Step 0 provides contextual diagnosis and prepares sampling and adaptation; Steps 1 and 2 collect transition and performance data; Step 3 brings analysis, participatory interpretation and use of evidence into policy dialogue. TAPE may support project design, monitoring, learning, research and national strategy evaluation.

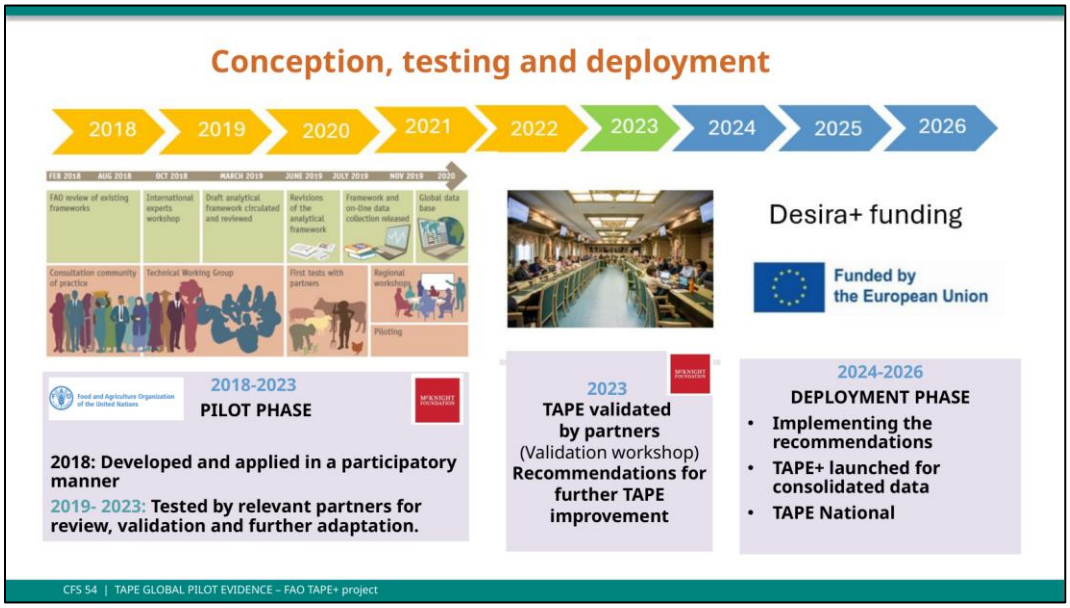


FAO presentation slide: TAPE as a complete assessment process, before, during and after the farm survey.

3. TAPE+: from pilot learning to wider deployment

Building on experience with this assessment framework, the 2023 partner validation process identified needs for clearer methodological guidance, stronger data management, an active community of practice and the possibility of national-scale applications. Supported by the European Commission through DeSIRA+, TAPE+ has sought to translate those recommendations into

operational improvements. McKnight Foundation's earlier and continuing support remains foundational to the wider TAPE programme.



FAO presentation slide: Four mutually reinforcing workstreams of TAPE+ — stronger evidence, digital tools, community of practice and national assessments.

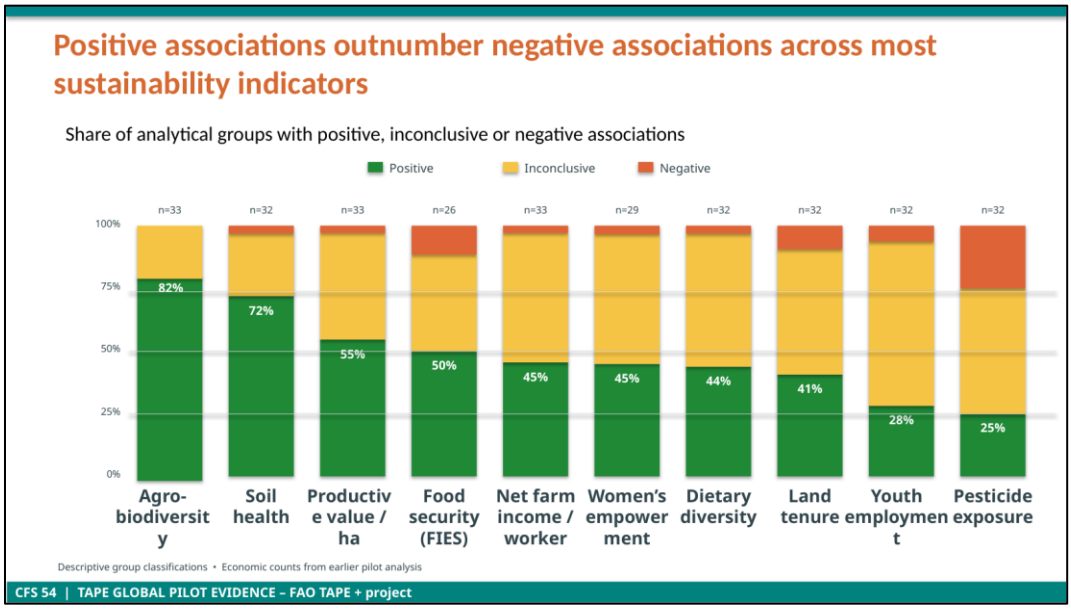
Stronger evidence includes revised questionnaires and guidance, quality controls, harmonisation of pilot datasets and new analytical methods. Digital development seeks to reduce the technical burden on project managers. The Community of Practice connects users and helps circulate methodological lessons. National pilots test how TAPE can contribute directly to government-owned statistics and monitoring frameworks.

4. First global pilot evidence: promising, but observational

Data and analytical scope

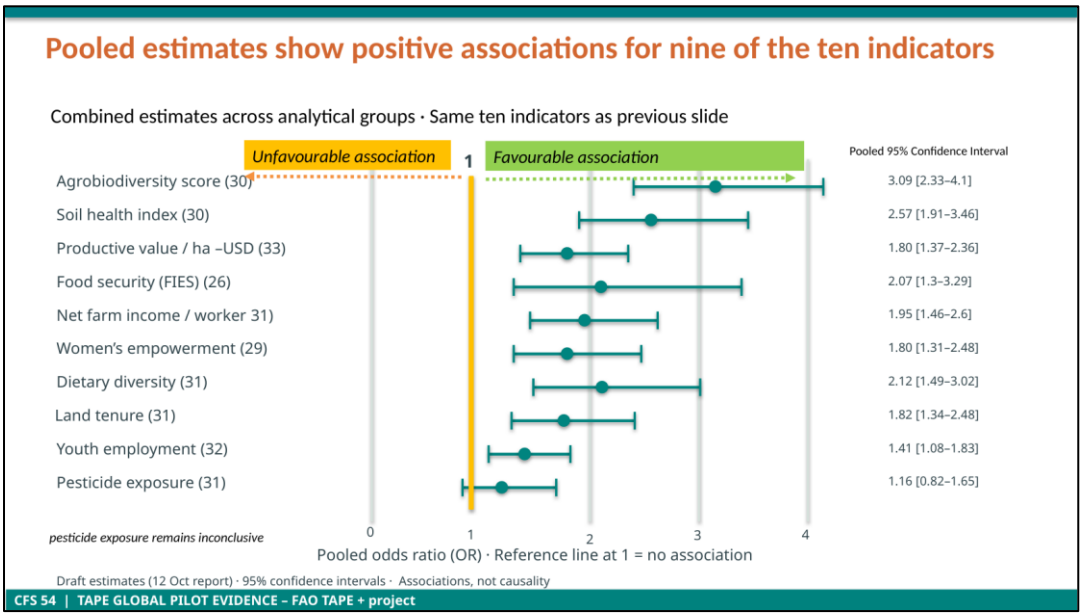
Rémi Cluset presented the first result of the FAO report being prepared with a group of experts. It covers 6,777 farm households in 20 countries and 33 analytical groups drawn from pilot studies with varying questionnaires and sampling methods. The synthesis examined associations between agroecological transition and individual sustainability indicators using descriptive and pooled analyses. A separate analysis examined the relationship between transition scores and multidimensional sustainability performance.

Findings across indicators and dimensions

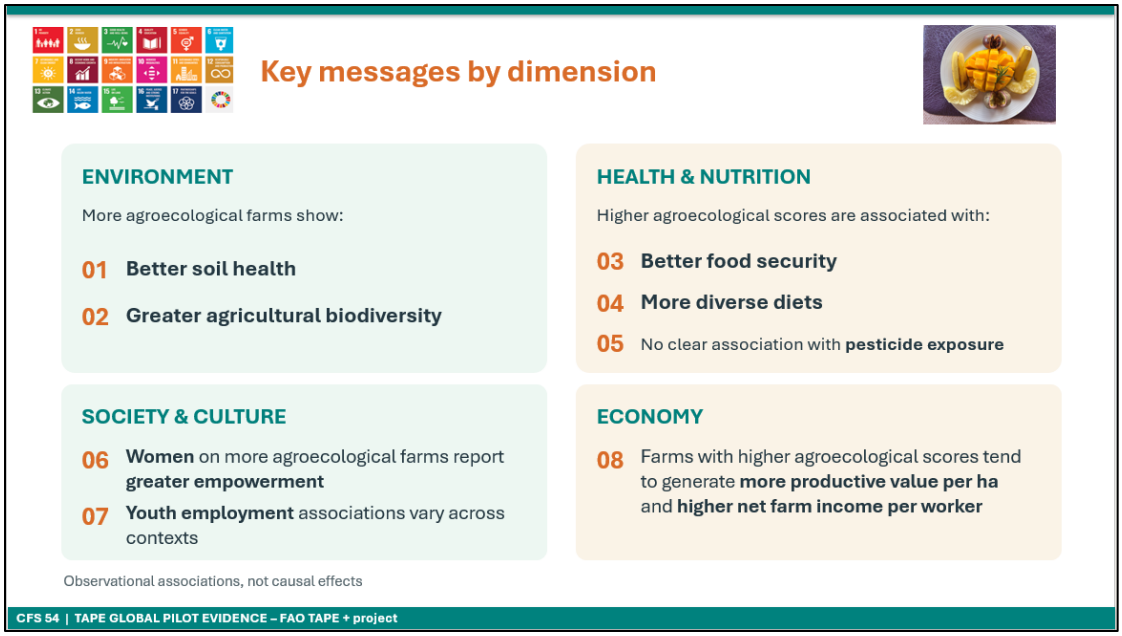


FAO preliminary pilot analysis: frequency of positive, inconclusive and negative associations across analytical groups.

The descriptive analysis summarised the direction of associations across analytical groups. It found more favourable than unfavourable associations for most indicators, especially agricultural biodiversity and soil health. The pooled analysis combined estimates from the pilot studies, reporting odds ratios with 95 percent confidence intervals. It indicated statistically significant favourable associations for nine of ten reported indicators; pesticide exposure remained inconclusive.

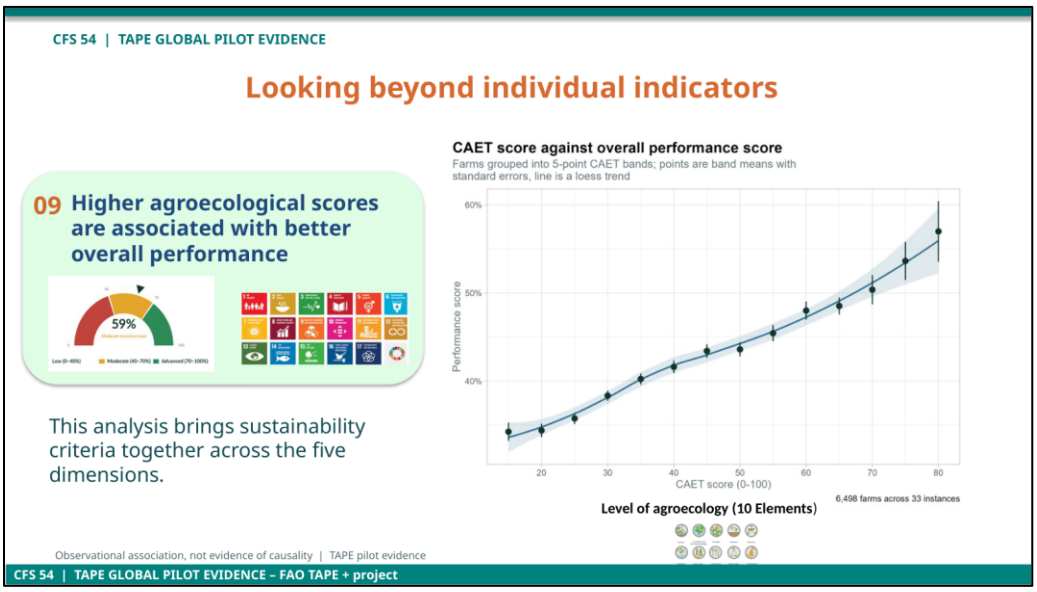


FAO preliminary pooled analysis: odds ratios with 95% confidence intervals. Observational associations, not causal effects.



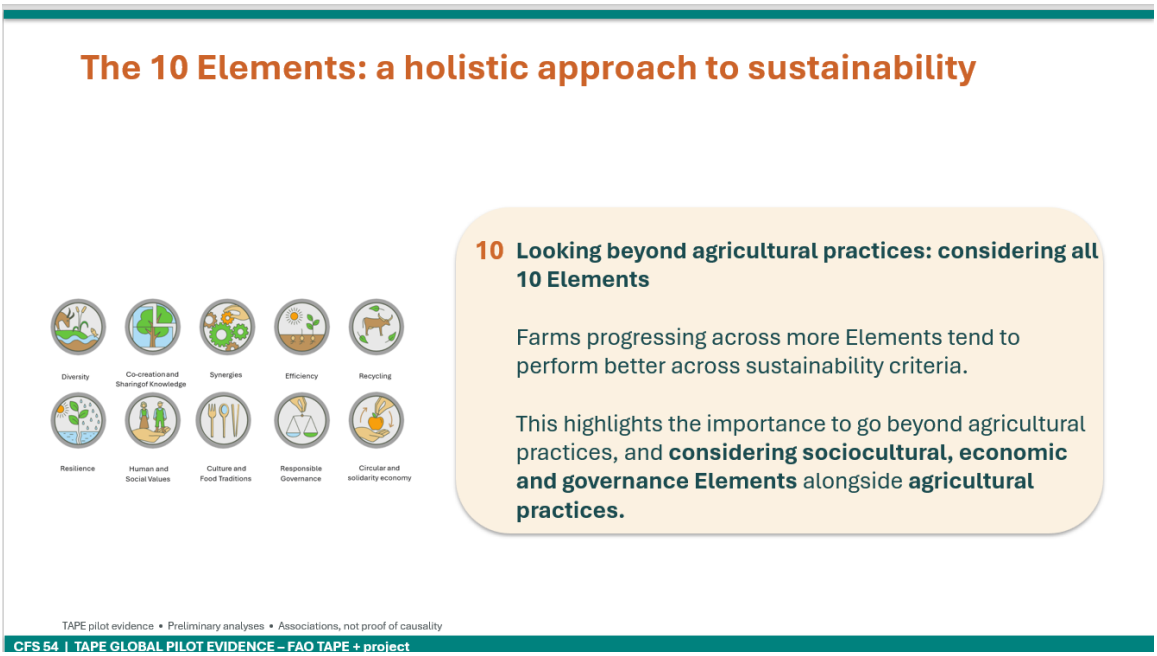
Key messages

FAO preliminary pilot analysis: key messages by sustainability dimension, synthesising the descriptive and pooled analyses shown in the preceding two graphs.



FAO preliminary pilot analysis: relationship between agroecological transition and a multidimensional sustainability performance score.

The multidimensional analysis suggested an association between higher agroecological transition scores and higher multidimensional sustainability performance. The results also emphasised that the farms progressing across more Elements tended to perform better across sustainability criteria. This highlights the importance to go beyond biophysical practices and considering social values, knowledge, governance and economic organisation.



Interpretation and limitations

These observational results are not globally representative and cannot establish causal effects. Their interpretation depends on confidence intervals, variation among studies and the definitions used for each outcome. The exploratory patterns support further harmonised follow-up studies, rather than claims of proven impact.

5. Digital transformation: the FAO TAPE digital platform

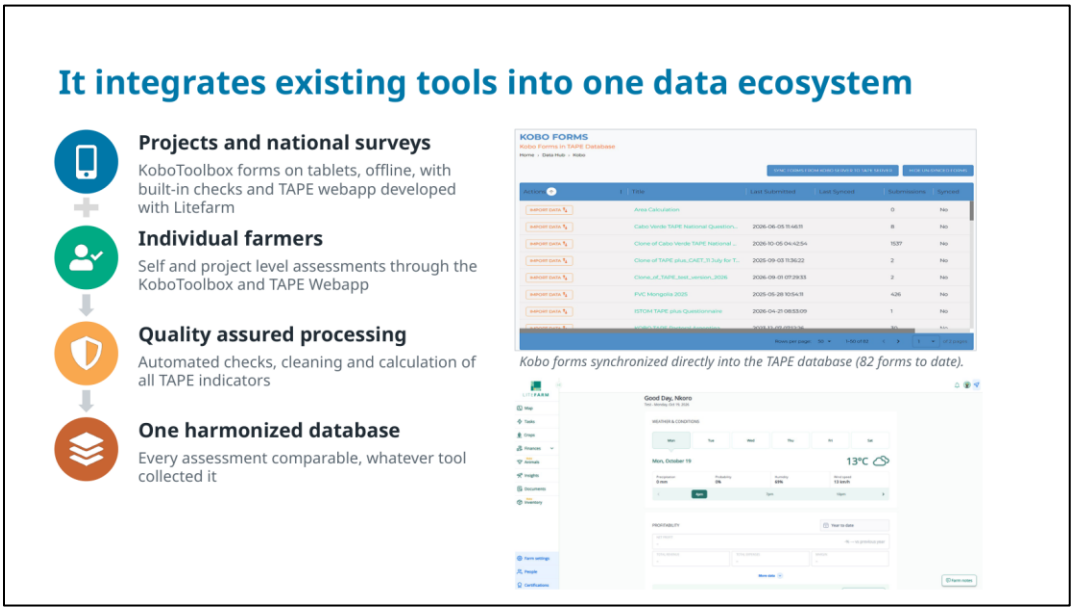


Addressing the data-management needs highlighted by the pilot studies, **Davidson Nkoro** presented the FAO platform as a secure common environment for project management, harmonised data processing, indicator calculation and result visualisation. It connects Kobo-based collection to quality assurance and dashboards, and is designed to support both project-level work and national assessments.

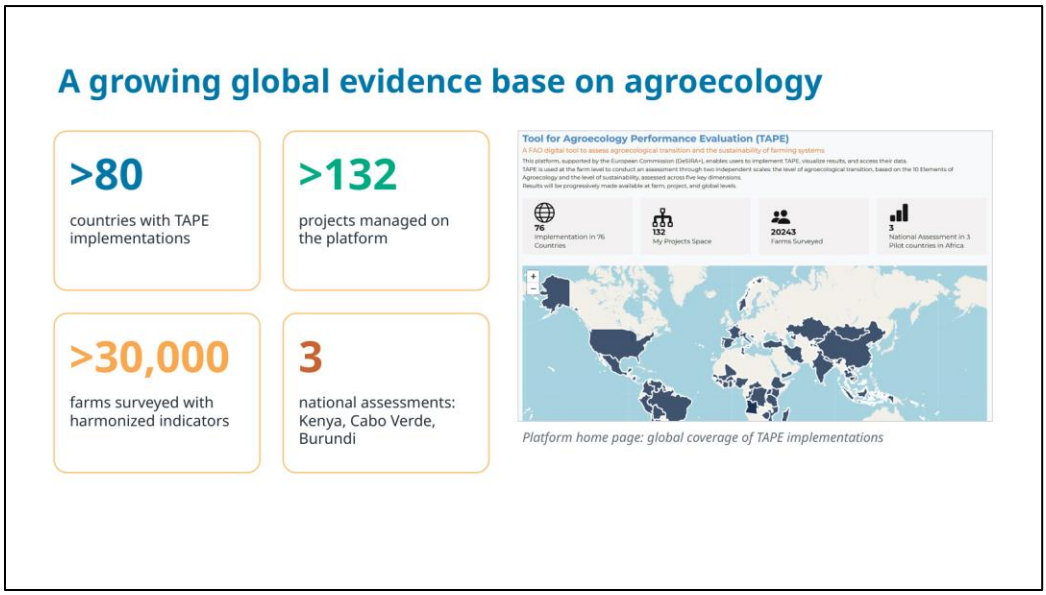
The presentation reported TAPE implementations in more than 80 countries and more than 30,000 surveyed farms. It also reported more than 132 projects were to be managed on the platform.

Project spaces allow teams to register assessments, review contextual characteristics, examine the Characterization of the Agroecological Transition (CAET) and Step 2 indicators, and obtain outputs without rebuilding calculations for every survey. The emerging global evidence hub aims to make cleared datasets explorable by country, project and year. Access to underlying data is subject to

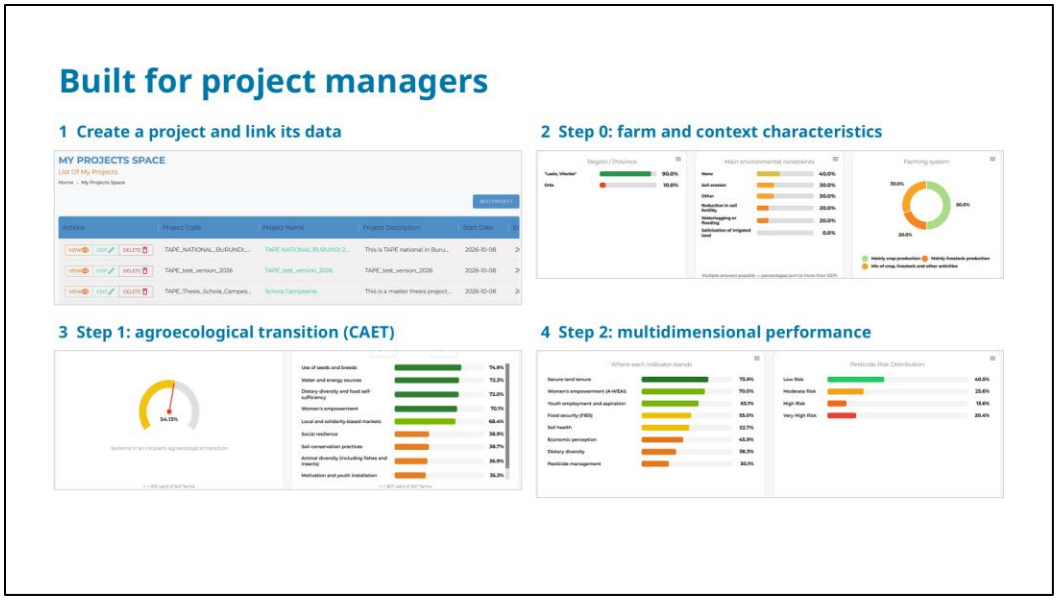
publication authorisation and data governance; some longitudinal functionality is still under development.



FAO digital platform: Kobo and web-based collection, harmonised quality checks and common database.



FAO presentation slide: reported implementation coverage and national assessments.



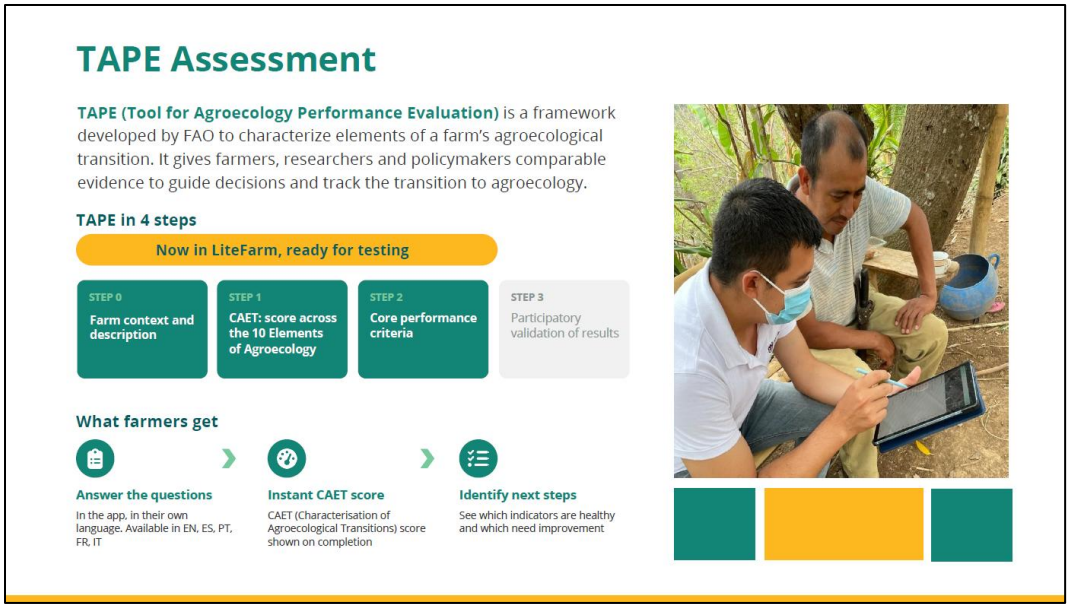
FAO digital platform: project spaces and TAPE Steps 0–2 dashboards.

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6. Farmer-centred digital assessment: LiteFarm collaboration



Complementing the FAO platform's project-management and analysis functions, **Hannah Wittman** (University of British Columbia) presented a pilot interface that allows farmers and service providers to record TAPE-related information and view feedback while retaining a role in the governance of their data. The collaboration explores interoperability with FAO's TAPE digital platform. The TAPE integration remains under development and technical testing and is not yet ready for deployment.



LiteFarm: pilot interface for TAPE assessment.

7. National TAPE assessments: institutionalising evidence

The national presentations illustrated how the methodological and digital developments described above are being applied within country-led evidence processes.

Burundi — statistical legitimacy and farmer organisation ownership



Annick Sezibera of the Confédération des Associations des Producteurs Agricoles pour le Développement (CAPAD) described an assessment embedded in a national multistakeholder platform bringing together government, FAO, research and farmer organisations. A national technical team was formally established, and a statistical visa was obtained in July 2026. The presentation cited survey coverage of 2,120 households in five provinces.

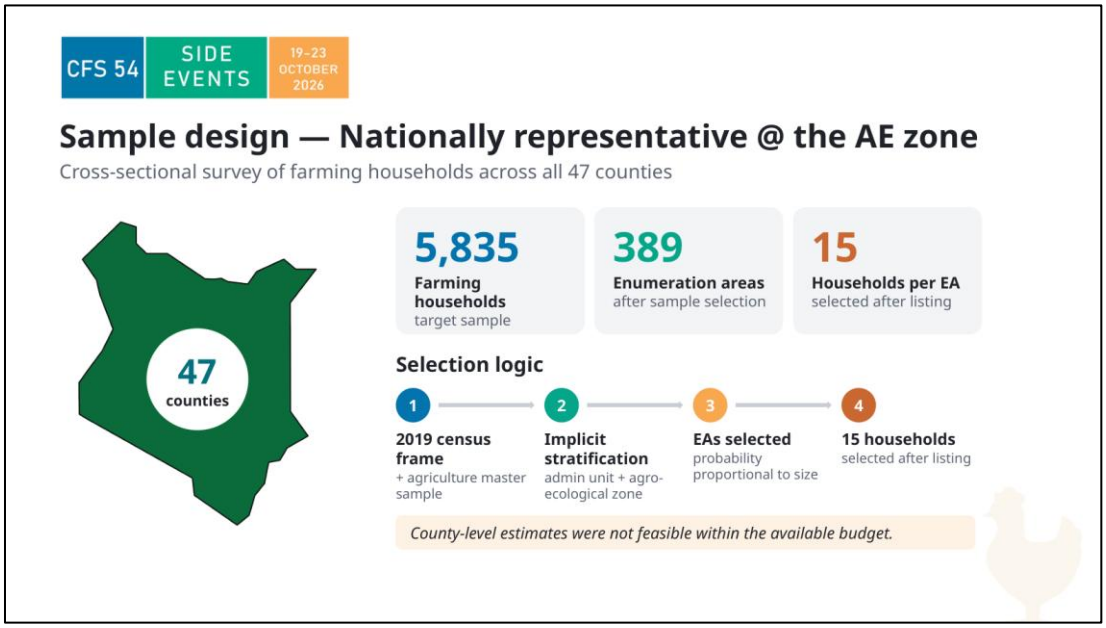
A pilot involving 69 households identified a risk that an excessively long economic module could affect interview quality, prompting the decision to limit the detailed module to a targeted subsample of 200 households. Power supply and rural logistics required contingency measures. Farmer organisations helped mobilise field teams, facilitate access and strengthen ownership. The experience illustrated the importance of adapting survey methods and logistics, while the national platform and public statistical endorsement provided an institutional basis for the assessment.

Kenya — a baseline for monitoring the national agroecology strategy



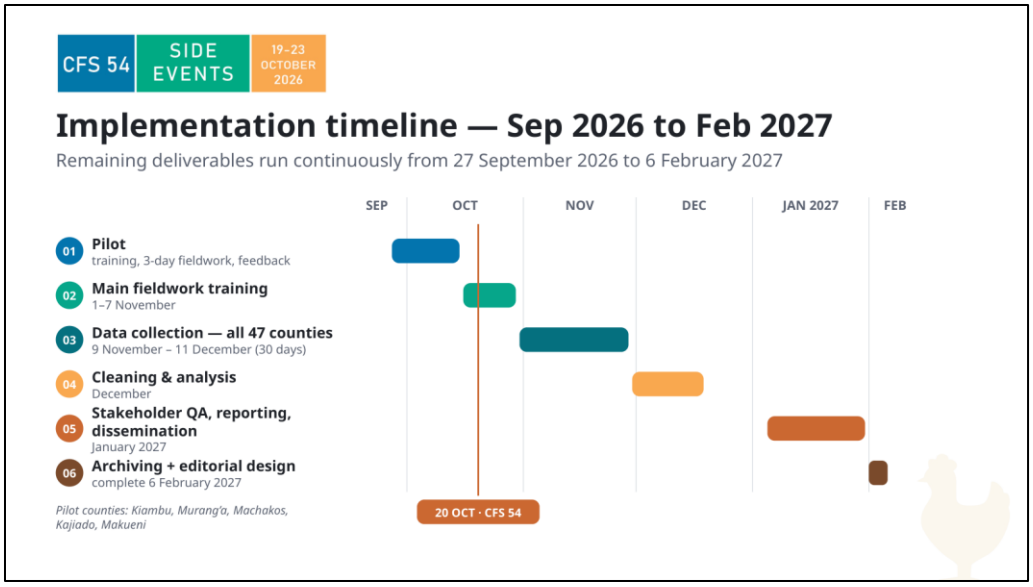


Brian Chiputwa (Landscape Alliance) and **Benson Kaboro Matere** (Kenya Bureau of Statistics) outlined how TAPE is intended to support monitoring of the National Agroecology Strategy for Food System Transformation (2024–2033). The monitoring framework distinguishes delivery of planned policy actions, changes in the agroecological status of farms and broader sustainability outcomes; TAPE can provide a baseline for the latter two. The target design includes 5,835 farming households in 389 enumeration areas across all 47 counties. It supports national and agroecological-zone analysis, but not precise county-level estimates within the available budget.



Kenya: target sample, enumeration areas and statistical selection approach.

The presentation outlined preparations for the survey, including questionnaire adaptation, computer-assisted personal interviewing (CAPI) checks, training and quality-assurance arrangements. Main fieldwork was planned for November–December 2026, with baseline outputs expected in early 2027. Sustained policy use will depend on integrating the indicators into the national monitoring and evaluation (M&E) framework and financing comparable repeat measurements.



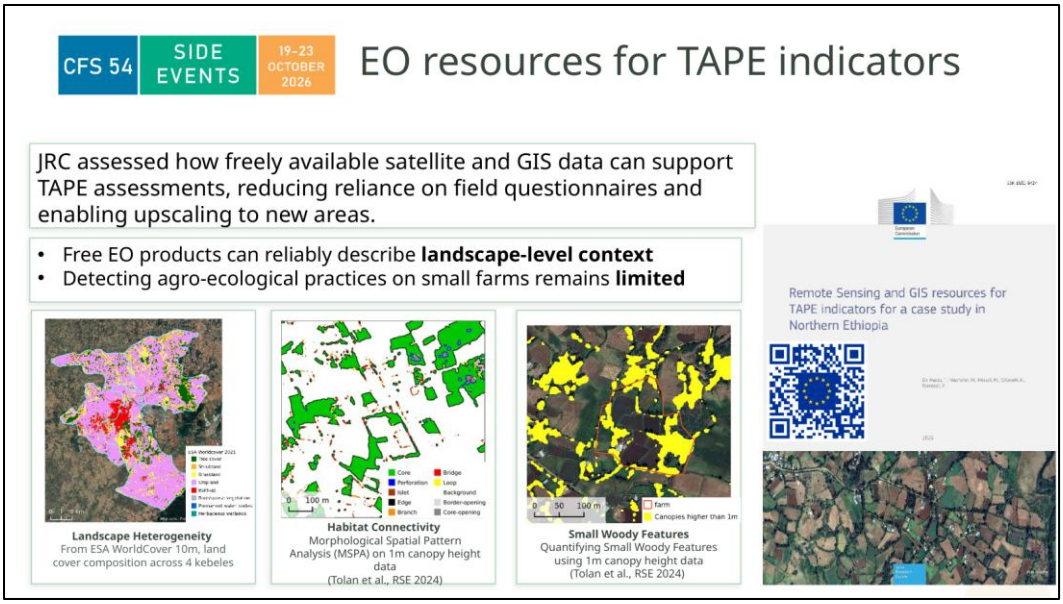
Kenya: planned fieldwork, data cleaning and dissemination schedule for the national baseline.

Cabo Verde — a geographically and socially differentiated national picture

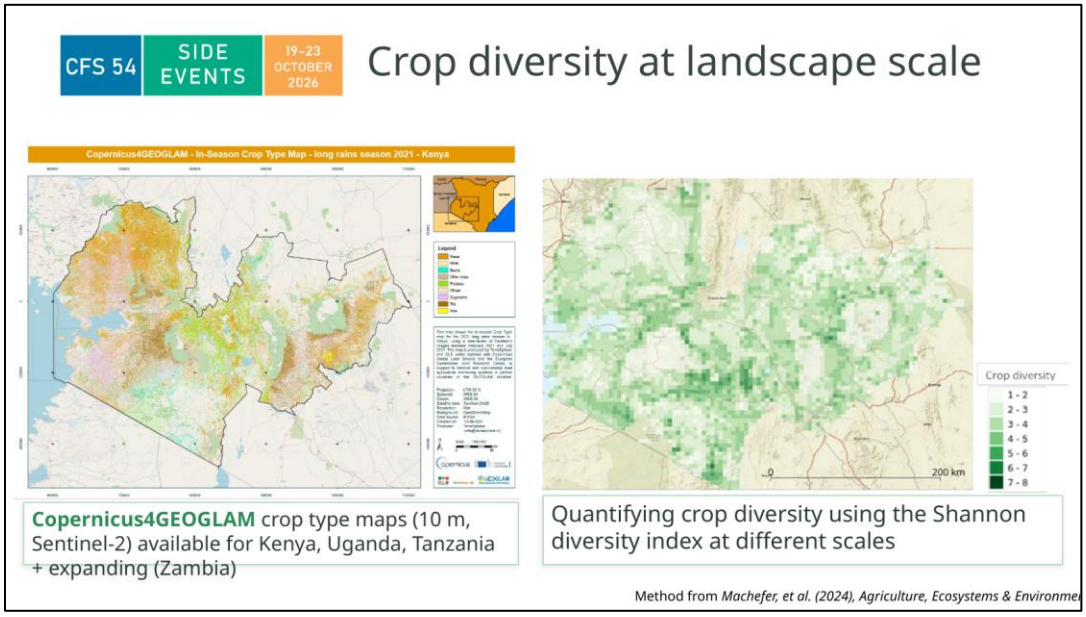
8. Joint Research Centre (JRC) innovation: Earth observation complements farm surveys



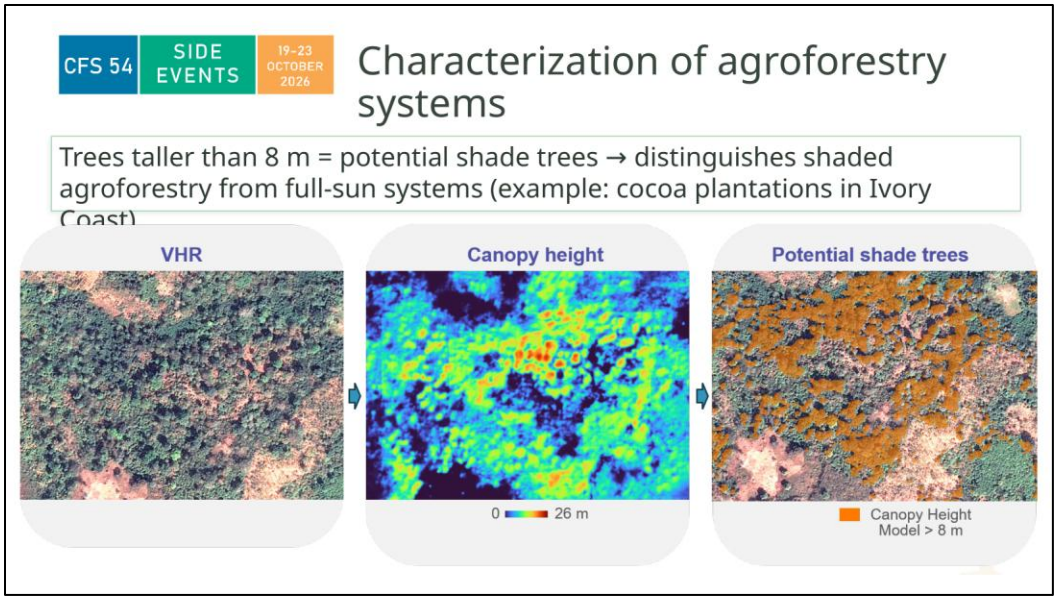
Alongside the national surveys, **Carlo Rega** presented work by the European Commission JRC on how free Earth observation and geographic information system (GIS) datasets could enrich TAPE's contextual and landscape analysis. Examples include land-cover composition, landscape heterogeneity, habitat connectivity, woody features and landscape-level crop diversity. One-metre canopy-height data can reveal structural landscape features; Sentinel-2 crop-type maps support diversity analysis at broader spatial scales.



European Commission JRC: which agroecological indicators can be informed by Earth observation, and which cannot.



European Commission JRC: satellite-based crop diversity and landscape indicators.



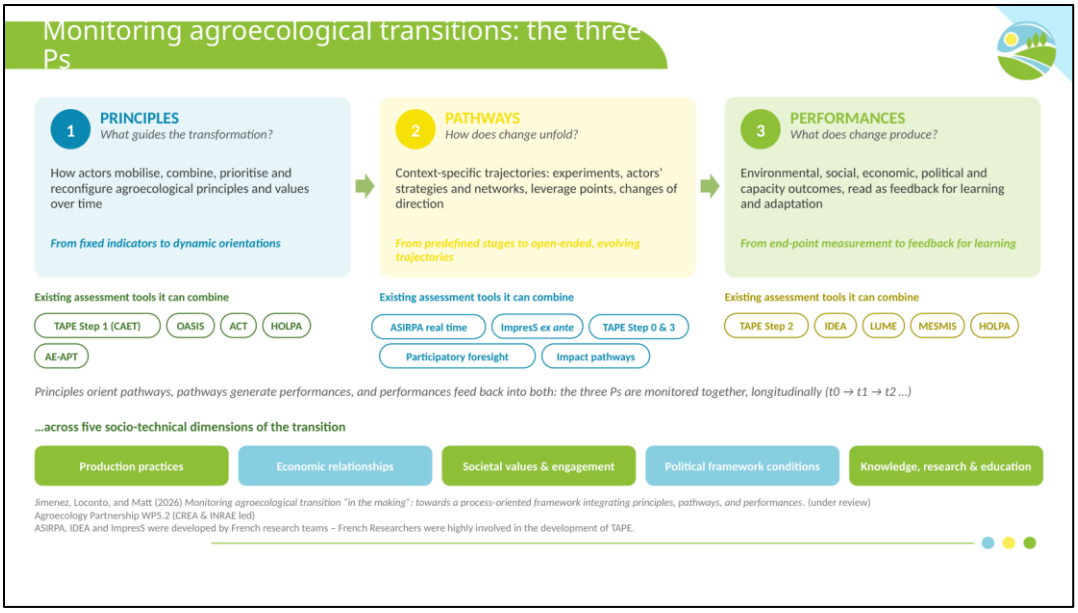
European Commission JRC: identifying potential shade-tree agroforestry systems using canopy information.

The scientific opportunity is to combine spatial variables with geolocated TAPE field observations, potentially improving context analysis and the interpretation of farm-level results. The JRC was equally clear about limitations: small-farm practices, management decisions and most social or economic indicators cannot be inferred reliably from space. Field boundaries and Global Positioning System (GPS) observations are therefore essential to future integration. The collaboration explores how EU geospatial research can complement TAPE's farm-level assessments.

9. French National Research Institute for Agriculture, Food and Environment (INRAE) and European research: following transitions in the making



Where the JRC contribution explored the spatial context of farm performance, **Allison Loconto** focused on how transitions unfold over time. She highlighted French and European research networks, including the Agroecological Crop Protection Initiative (ACPI), Agroecological Crop Protection: towards international co-innovation dynamics and evidence of sustainability (ACROPICS) and the European AGROECOLOGY Partnership, and introduced a framework connecting principles, pathways and performances: principles orient the transition, pathways describe how change unfolds, and performance measures provide feedback for learning and adaptation. TAPE Steps 1 and 2 can contribute alongside tools such as Analyse socio-économique des impacts de la recherche publique agronomique (ASIRPA; Socio-Economic Analysis of the Impacts of Public Agronomic Research), through its real-time evaluation approach, ASIRPA Real-Time.



INRAE: principles, pathways and performances as complementary dimensions of transition monitoring.

In ACROPICS, the presentation reported a TAPE baseline of 539 farms in eight sustainable agroecological systems, with participatory pathway work in multiple countries. The contribution illustrated how TAPE can be combined with process-oriented approaches to examine current performance alongside the social and institutional mechanisms shaping transitions.

10. Closing remarks



The closing remarks were delivered by Mr. Alexander Jones, FAO Assistant Director-General. Mr. Jones highlighted that agroecology is increasingly recognized as a key pathway for sustainable and resilient agrifood systems, but scaling it requires strong and comparable evidence. The FAO Tool for Agroecology Performance Evaluation (TAPE) has become a global standard, generating data from over 20,000 farming households across more than 70 countries. Since 2024, FAO has expanded this work through TAPE+, with support from the European Commission, to strengthen the tool and assess agroecology at national levels. Initial experiences in Burundi, Cabo Verde, and Kenya demonstrate the potential of national-level evidence to inform policies and investments. The progress achieved reflects strong collaboration among governments, farmers, researchers, civil society, and development partners. FAO emphasized that credible evidence is essential for mobilizing investments and accelerating agroecological transitions. The organization remains committed to expanding TAPE+ and supporting countries in building more resilient, inclusive, and sustainable food systems.

11. Overall conclusions

Taken together, the presentations outlined an emerging evidence pathway linking partner-led farm assessments, strengthened methodologies, digital infrastructure, nationally anchored surveys,

geospatial research and collaborative interpretation. Their complementary contributions show how TAPE can inform research and policy processes, while the preliminary statistical findings remain subject to the limitations set out in Section 4. The national accounts also underline that policy use depends on institutional arrangements and sustained measurement, not data collection alone.

Editorial and source notes

More about TAPE: Brochure TAPE 2026

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