

Malawi National Adaptation Plan

Agriculture Sector M&R Framework and Indicator Definition Sheets



Ministry of Natural Resources

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AGRICULTURE SECTOR INDICATORS

STRATEGY 1: DROUGHT-TOLERANT CROPS

Adaptation Action 1: Periodically update extension information with messages aimed at building farmers' adaptive capacity to climate change shocks

Indicator Level	Indicator Name	Baseline	Target (by 2030)	Metric	Means of Verification
Output	No. of extension packages updated and disseminated	0	≥4 updated packages per year	Number of updated messages	DAECC, MoA communication logs
Output	% of Extension Workers trained on new climate adaptation messages	10%	≥90%	% of workforce	Training rosters, EPA training records
Outcome	% increase in farmers applying adaptive practices learned from updated messages	25%	≥70%	% of trained farmers applying techniques (disaggregated by sex, youth)	Farmer follow-up surveys, extension field logs
Impact	Reduction in reported loss of income due to climate-related crop shocks	High variability	≥50% reduction in income loss	% income loss due to shocks	Household resilience surveys, rural livelihood assessments

Adaptation Action 2: Conduct demonstration sessions on drought-tolerant crop varieties

Indicator Level	Indicator Name	Baseline	Target (by 2030)	Metric	Means of Verification
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Output	No. of demonstration plots established in drought-prone areas	TBD	≥160 plots (20 per district)	Number of plots	Extension planning area reports
Output	No. of farmers participating in demo sessions	TBD	≥16,000 (2,000 per district)	Number of farmers	Participant registers, field reports
Outcome	% increase in adoption of drought-tolerant varieties in demo districts	20%	≥40% adoption	% of farmers adopting	District-wide farmer surveys, seed uptake records
Impact	Increase in yield stability (reduced variability) of demo crops during dry spells	Low yield stability	≥40% increase in yield stability	Variance in yield per hectare	MoA yield monitoring data, rainfall-adjusted production reports

STRATEGY 2. AFFORESTATION/ REFORESTATION

Adaptation Action 3: Increase tree cover on degraded, low-yielding cropland and pastures in agricultural landscapes through farmer-managed and assisted natural regeneration (FMNR), direct seeding, agroforestry, crop rotation, etc.

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	Hectares of degraded land under FMNR/agroforestry interventions	TBD	≥250,000 ha	Area (ha)	GPS-tagged field surveys, Land use records
Output	No. of farmers adopting tree-based CSA techniques (e.g. FMNR, cover crops)	<5,000	≥150,000	Number of adopters	Extension and EPA reports, farmer adoption tracking

Outcome	% increase in tree cover in treated landscapes	12%	≥30%	% canopy cover	Satellite imagery, NDVI & forest cover analyses
Impact	Reduction in land degradation severity in intervention areas	80%	≥50% improvement	Soil/land degradation index	SLM assessments, Environmental audits, ELD indicators

STRATEGY 3. CLIMATE SMART AGRICULTURE (CSA)

Adaptation Action 4: Conduct capacity building (and/or refresher) sessions on CSA to all Extension Workers and Lead Farmers, cascading to the end-user farmer

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of Extension Workers and Lead Farmers attending CSA training sessions	TBD	≥100,000 Extension Workers and Lead Farmers (disaggregated by gender)	Number of sessions	MoA/DAECC training reports, attendance records
Output	% of Extension Workers trained on CSA modules	15%	≥95%	% of total Extension Staff	EPA training registers, DARS records
Outcome	% of smallholder farmers adopting at least one CSA practice due to training cascade	20%	≥75%	% of trained HHs adopting CSA	Farmer adoption surveys, EPA field monitoring
Impact	Increase in average agricultural productivity among CSA-trained farmers	Variable	≥35% yield improvement (disaggregated by value chain)	% change in yield (kg/ha)	MoA yield monitoring datasets, seasonal crop reports

Adaptation Action 5: Promote peer-to-peer transfer of climate-resilient farming practices that reduce vulnerability to climate variability

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of farmer peer-to-peer transfer visits conducted per year	TBD	≥100 per year	No. of visits	District Extension Office records, exchange logs
Output	No. of farmers participating in peer-to-peer transfer visits	TBD	≥20,000 total	Number of participants	Attendance records, participant registers
Outcome	% of participating farmers applying new CSA practices learned	10%	≥70%	% of participants	Follow-up surveys, extension agent verification
Impact	% increase in resilience indicators (income diversity, food security, input efficiency)	Low baseline	≥50% improvement	Composite resilience index	Household surveys, CSA impact evaluations

Adaptation Action 6: Disseminate Climate Risk Maps in all Agro-Ecological Areas (AEAs) and generate the Maps where not available

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of Climate Risk Maps developed or updated across AEAs	40 AEAs	198 AEAs	% of AEAs with maps	DoDMA, DCCMS, EPA coordination records
Output	No. of dissemination activities conducted (e.g.,	TBD	≥500 activities	Number of events/materials	Training logs, AEA dissemination reports

	trainings, briefings, posters)				
Outcome	% of AEA planning decisions that incorporate Climate Risk Map information	Very low	≥90% of planning processes	% of decisions using CRM	District agriculture plans, documentation reviews
Impact	% reduction in climate-related agricultural losses due to informed planning	High climate loss exposure	≥50% reduction	% loss (crop failures, income loss)	District loss and damage data, risk-adjusted yield records

Adaptation Action 7: Strengthen Agrometeorological Services for Climate-Resilient Agriculture

Objective: Strengthen the capacity of Malawi's agrometeorological services to support climate-resilient agriculture and improve food security.

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of advisories targeting farmers	28	36	count	MOA/ DCCMS
Output	Use of digitized platforms to provide climate advisories	1	2	count	DCCMS
Outcome	% of farmers integrating climate in their planning	<10%	≥50%	%	Extension services
Impact	% increase in yields	5%	≥20%	%	Extension services/DCCMS

STRATEGY 4. CONSERVATION AGRICULTURE

Adaptation Action 8: Strengthen Conservation Agriculture learning hubs that support widespread adoption of soil- and water-conserving practices to reduce climate-induced crop losses i.e Farmer field schools.

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	Conservation Agriculture curriculum developed and approved that support widespread adoption of soil- and water-conserving practices to reduce climate-induced crop losses	TBD	1 national curriculum developed	Existence of curriculum	MoA/DARS documentation, education authority endorsement
Output	No. of stakeholders oriented on the new curriculum (e.g., extension workers, lead farmers)	TBD	≥5,000 individuals	Number trained	Workshop reports, training records
Outcome	% of extension workers applying curriculum in field engagement	TBD	≥90%	% of users	Extension monitoring reports, EPA verification
Impact	% increase in adoption of crop residue retention and rotation practices in target zones	<15%	≥30%	% of adopters	Agricultural surveys, farm-level tracking data

Adaptation Action 9: Periodically update the curriculum for training Extension Workers/Agents in Conservation Agriculture

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
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Output	No. of curriculum updates completed and validated by MoA	TBD	≥3 major updates by 2030	Number of updates	Curriculum revision reports, MoA approval minutes
Output	% of Extension Workers trained on updated curriculum content	10%	≥95% of active staff	% of workforce	Training records, DAECC/EPA reports
Outcome	% improvement in extension service quality in CA practices	Moderate	≥50% improvement	Farmer feedback scores	Farmer perception surveys, field audits
Impact	Increased efficiency and consistency in CA delivery across districts	Inconsistent	Harmonized delivery in ≥90% of districts	Qualitative and quantitative performance index	M&E evaluations, annual performance reviews

STRATEGY 5. IMPROVE SOIL FERTILITY

Adaptation Action 10: Promotion of production of inorganic fertilizers and use of the same in targeted compost sites to increase soil carbon stock retention and reduce N₂ O emissions

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of compost sites using inorganic fertilizers for enhanced carbon retention	TBD	≥500 composting sites	Number of active sites	District agriculture records, compost facility logs
Output	No. of training sessions on integrated soil fertility and N ₂ O reduction held	TBD	≥300 sessions	Number of trainings	EPA/MoA training reports

Outcome	% of trained farmers using integrated composting with targeted inorganic fertilizers	Low (<10%)	≥60% of trained farmers	% of adopters	Extension reports, farmer surveys
Impact	% reduction in N ₂ O emissions from fertilizer use in target districts	High emissions	≥30% reduction	Emission estimates	Emission inventories, GHG modelling reports (MoECC, IPCC tools)

Adaptation Action 11: Procure legumes and distribute other multiple impact crops for soil fertility and dietary improvement

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of legume seed packs and multi-impact crops distributed	TBD	≥2 million packs	Number of packs	Distribution reports, procurement records
Output	% of targeted farmers receiving soil-enhancing legumes and crops	TBD	≥80%	% of target farmers	EPA field distribution records
Outcome	% increase in area under legume-based rotations and intercropping	Low (<15%)	≥65%	Hectares	Crop rotation maps, farmer plot data
Impact	Improvement in soil nutrient status and dietary diversity scores	Low	≥50% increase in N-content and HDDS score	Soil tests, household dietary surveys	Soil lab reports, NSO/IHS data

Adaptation Action 12: Adopt use of Soil Fertility Monitoring Tools

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of farmer outreach sessions promoting soil testing tool use	TBD	≥1,000 sessions	Number of sessions	EPA extension plans, attendance logs
Output	No. of IEC materials on soil monitoring distributed	TBD	≥250,000 materials	Number of materials	Communication and outreach records
Outcome	% of smallholder farmers routinely using soil fertility monitoring tools	Very low (<5%)	≥60%	% adoption	Household surveys, extension officer records
Impact	% increase in appropriate input use and crop response efficiency	Low input efficiency	≥40% improvement	Yield per input ratio	Yield and cost-benefit analyses, EPA monitoring

STRATEGY 6. CROP DIVERSIFICATION

Adaptation Action 13: Promote periodic research in alternative climate-suitable crop portfolios

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of research studies commissioned on climate-suitable crops	TBD	≥30 research studies	Number of studies	MoA/DARS annual reports, research publications
Output	No. of AEAs with updated crop suitability profiles	<15%	100% of AEAs	% of AEAs	Crop zoning reports, DARS suitability maps
Outcome	% increase in policy and planning documents referencing new crop portfolio research	Low	≥75%	% of plans incorporating findings	MoA strategic documents, AEA plans
Impact	% increase in climate-suitable crops integrated into production systems	Low (<10%)	≥60%	% adoption across districts	Agricultural census, farm-level production records

Adaptation Action 14: Identify and promote crop varieties that are better adapted to projected temperature increases and rainfall variability

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of crop varieties that are better adapted to projected temperature increases and rainfall variability packed and distributed	TBD	≥5 million packs	Number distributed	Procurement logs, EPA distribution registers

Output	% of vulnerable farming households receiving diversified input packages	TBD	≥80%	% of target households	Extension delivery reports, targeting forms
Outcome	% increase in land under alternative (non-maize) crop production	Low (<20%)	≥65%	% of cropped land	Land use surveys, district crop calendars
Impact	% increase in household dietary diversity and income from alternative crops	Low HDDS/income	≥50% improvement	HDDS, income change	Household surveys (NSO/IHS), value chain studies

Adaptation Action 15: Strengthen market access for climate-resilient crops to incentivize farmer adoption of diversified, climate-adaptive production systems

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of structured market platforms established or supported for climate-resilient crops	Few informal markets	≥50 structured market platforms	Number of markets	MoA/Ministry of Trade reports, District Market Inventories
Output	No. of farmers trained on structured market access and price negotiation for climate-resilient crops	TBD	≥100,000 farmers	Number of farmers	Training rosters, Extension reports
Outcome	% of farmers selling through structured markets for climate-resilient crops	<10%	≥70%	% of participating HHs	Cooperative records, buyer contracts, EPA surveys
Impact	% increase in price stability and market-driven	High price volatility	≥50% improvement	Farmgate price variance, crop supply stability	Market price data (AMIS), market traceability systems

	production for climate-resilient crops				
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STRATEGY 7. ANIMAL HEALTH AND LIVESTOCK DEVELOPMENT

Adaptation Action 16: Climate-proof livestock infrastructure (e.g. dip tanks, shelters, water points) to protect animals from climate-related stress and disease risks

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of dip tanks, shelters, and water points constructed or rehabilitated	TBD	≥200 dip tanks, shelters, and water points	Number of units	DAHLD infrastructure registry, district reports
Output	% of high-risk livestock zones covered by functional dip tanks, shelters, and water points	<20%	≥80%	% of zones	GIS mapping of coverage
Outcome	% reduction in tick-borne and vector-related livestock diseases	High prevalence	≥60% reduction	Disease prevalence	DAHLD Animal health surveillance reports/ Laboratory diagnosis reports
Impact	% increase in livestock survival and productivity in treated areas	Moderate	≥40%	Livestock population increase rates	Livestock monitoring systems, producer records

Adaptation Action 17: Promote climate-resilient livestock breeds with improved tolerance to heat, drought, and disease.

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	No. of breeding and cross-breeding centers established (including satellite breeding centres) for climate-resilient livestock breeds	TBD	≥ 30 stud centers for dairy, beef and goats	Number of centers	DAHLD records, facility assessments
Output	No. of improved climate-resilient livestock breeds distributed through centers	TBD	≥100,000 animals	Number of animals	Breeding center logs
Outcome	% increase in adoption of improved livestock breeds	Low (<15%)	≥70%	% adoption	Farmer surveys, extension officer field logs
Impact	Increase in productivity and climate resilience of livestock herds	Low resilience	≥50% improvement	Productivity index	Livestock yield records, breeding success rates

Adaptation Action 18: Expand Drought-Tolerant Pastures (Napier and Brachiaria)

Indicator Level	Indicator Name	Baseline	Target (2030)	Metric	Means of Verification
Output	Total land area under improved pastures (Napier and Brachiaria)	Hectares (ha)	Napier: 30,000 ha (existing NDC baseline);	Napier: +6,000 ha (total 36,000 ha); Brachiaria: 800 ha nationwide	MoA livestock production records; Remote sensing & GIS mapping; District

			Brachiaria: 8 ha (Mchinji only)		Agricultural Extension reports
Output	Number of farmers trained in pasture establishment and management	<500 farmers trained (isolated initiatives)	5,000 livestock farmers trained across 15 districts	Number of farmers	Training reports; Extension service databases; FAO/NGO project documentation
Outcome	Average forage yield per hectare under drought conditions	Napier: ~5 tonnes/ha; Brachiaria: ~3 tonnes/ha	Napier: ≥12 tonnes/ha; Brachiaria: ≥10 tonnes/ha	Tonnes of dry matter/ha	On-farm yield surveys; MoA technical reports; Field performance monitoring
Impact	% reduction in feed shortage period for livestock producers	4–5 months of annual feed scarcity	Feed scarcity reduced to ≤2 months per year by 2030	Percentage of months with adequate feed supply	Annual livestock feed availability assessments; National Livestock Statistics Bulletin; MoA monitoring surveys

Indicator Definition Sheets (IDS)

The Agriculture Sector IDSs provide standardized technical specifications for measuring and reporting progress in implementing the agriculture adaptation priorities of the Malawi NAP.

Each IDS defines the relevant indicator, its purpose, unit of measurement, calculation methodology, baseline and target, data sources, means of verification, reporting frequency, institutional responsibility and applicable disaggregation.

The IDSs are intended to promote consistency, comparability and transparency in monitoring changes in agricultural resilience, productivity, climate-risk management and the adoption of climate-resilient practices over successive reporting cycles.

STRATEGY 1: DROUGHT-TOLERANT CROPS

Adaptation Action 1: Periodically update extension information with messages aimed at building farmers' adaptive capacity to climate change shocks

IDS AGR-AA1-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of extension packages updated and disseminated
Indicator Definition	Number of extension information packages on climate adaptation that are updated and disseminated to intended extension users and farmers.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	Number of updated messages
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	0
Baseline Year	2025
Target	≥ 4 updated packages per year
Target Year	2030
Data Source(s)	DAECC, MoA communication logs; relevant programme and administrative datasets.
Means of Verification	DAECC, MoA communication logs

Field	Description
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual, with routine activity tracking during the year.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA1-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	% of Extension Workers trained on new climate adaptation messages
Indicator Definition	Percentage measure of of extension workers trained on new climate adaptation messages among the defined target population or area.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	% of workforce
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	10%
Baseline Year	2025
Target	≥90%
Target Year	2030
Data Source(s)	Training rosters, EPA training records; relevant programme and administrative datasets.
Means of Verification	Training rosters, EPA training records
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.

Field	Description
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA1-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% increase in farmers applying adaptive practices learned from updated messages
Indicator Definition	Percentage measure of increase in farmers applying adaptive practices learned from updated messages among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	% of trained farmers applying techniques (disaggregated by sex, youth)
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	25%
Baseline Year	2025
Target	≥70%
Target Year	2030
Data Source(s)	Farmer follow-up surveys, extension field logs; underlying survey datasets and administrative monitoring records.
Means of Verification	Farmer follow-up surveys, extension field logs
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual.

Field	Description
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA1-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	Reduction in reported loss of income due to climate-related crop shocks
Indicator Definition	Change in the share or value of household income lost because of climate-related crop shocks compared with the baseline.
Purpose / Relevance to Adaptation	Assesses longer-term results that strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	% income loss due to shocks
Calculation Method	Compare climate-related income loss with the baseline level.
Formula	$\frac{[(\text{Baseline income loss} - \text{Current income loss}) \div \text{Baseline income loss}] \times 100}{}$
Numerator	Difference between baseline and current income loss.
Denominator	Baseline climate-related income loss.
Baseline	High variability
Baseline Year	2025
Target	≥50% reduction in income loss
Target Year	2030
Data Source(s)	Household resilience surveys, rural livelihood assessments; underlying survey datasets and administrative monitoring records.
Means of Verification	Household resilience surveys, rural livelihood assessments
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.

Field	Description
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 2: Conduct demonstration sessions on drought-tolerant crop varieties

IDS AGR-AA2-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of demonstration plots established in drought-prone areas
Indicator Definition	Count of qualifying demonstration plots established in drought-prone areas recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	Number of plots
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 160 plots (20 per district)
Target Year	2030
Data Source(s)	Extension planning area reports; relevant programme and administrative datasets.
Means of Verification	Extension planning area reports
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA; land-use type; crop/practice/intervention type.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.

Field	Description
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA2-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of farmers participating in demo sessions
Indicator Definition	Count of qualifying farmers participating in demo sessions recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	Number of farmers
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 16,000$ (2,000 per district)
Target Year	2030
Data Source(s)	Participant registers, field reports; relevant programme and administrative datasets.
Means of Verification	Participant registers, field reports
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.

Field	Description
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA2-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% increase in adoption of drought-tolerant varieties in demo districts
Indicator Definition	Percentage measure of increase in adoption of drought-tolerant varieties in demo districts among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	% of farmers adopting
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	20%
Baseline Year	2025
Target	≥40% adoption
Target Year	2030
Data Source(s)	District-wide farmer surveys, seed uptake records; underlying survey datasets and administrative monitoring records.
Means of Verification	District-wide farmer surveys, seed uptake records
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.

Field	Description
Methodological Notes / Assumptions	Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA2-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	Increase in yield stability (reduced variability) of demo crops during dry spells
Indicator Definition	Improvement in the consistency of crop yields during dry spells, reflected by reduced yield variability across comparable seasons.
Purpose / Relevance to Adaptation	Assesses longer-term results that strengthen farmers' capacity to manage drought and climate-related crop shocks.
Metric / Unit of Measurement	Variance in yield per hectare
Calculation Method	Compare yield variability during dry spells with the baseline variability.
Formula	$\frac{[(\text{Baseline yield variance} - \text{Current yield variance}) \div \text{Baseline yield variance}] \times 100}{}$
Numerator	Difference between baseline and current yield variance.
Denominator	Baseline yield variance.
Baseline	Low yield stability
Baseline Year	2025
Target	≥40% increase in yield stability
Target Year	2030
Data Source(s)	MoA yield monitoring data, rainfall-adjusted production reports; relevant programme and administrative datasets.
Means of Verification	MoA yield monitoring data, rainfall-adjusted production reports
Data Collection Method	Collect seasonal field/producer production data using standardized measurement units and aggregate annually.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Seasonal data collection; annual reporting.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Use consistent measurement units and reference periods; verify sampled field/producer records and check outliers.

Field	Description
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

STRATEGY 2. AFFORESTATION/ REFORESTATION

Adaptation Action 3: Increase tree cover on degraded, low-yielding cropland and pastures in agricultural landscapes through farmer-managed and assisted natural regeneration (FMNR), direct seeding, agroforestry, crop rotation, etc.

IDS AGR-AA3-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	Hectares of degraded land under FMNR/agroforestry interventions
Indicator Definition	Measure of hectares of degraded land under FMNR/agroforestry interventions under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to restore degraded agricultural landscapes and improve ecosystem and soil resilience.
Metric / Unit of Measurement	Area (ha)
Calculation Method	Sum verified hectares under qualifying FMNR/agroforestry interventions.
Formula	Total area (ha) = Σ verified intervention hectares
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 250,000$ ha
Target Year	2030
Data Source(s)	GPS-tagged field surveys, Land use records; underlying survey datasets and administrative monitoring records.
Means of Verification	GPS-tagged field surveys, Land use records
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; land-use type; intervention type; farm/landscape category.
Reporting Frequency	Seasonal data collection; annual reporting.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant forestry and land-management institutions.
Data Quality / Verification	Cross-check reported values against the stated means of verification and apply routine completeness and consistency checks.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA3-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of farmers adopting tree-based CSA techniques (e.g. FMNR, cover crops)
Indicator Definition	Count of qualifying farmers adopting tree-based CSA techniques (e.g. FMNR, cover crops) recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to restore degraded agricultural landscapes and improve ecosystem and soil resilience.
Metric / Unit of Measurement	Number of adopters
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	<5,000
Baseline Year	2025
Target	$\geq 150,000$
Target Year	2030
Data Source(s)	Extension and EPA reports, farmer adoption tracking; relevant programme and administrative datasets.
Means of Verification	Extension and EPA reports, farmer adoption tracking
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; land-use type; intervention type; farm/landscape category.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant forestry and land-management institutions.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA3-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% increase in tree cover in treated landscapes

Field	Description
Indicator Definition	Percentage measure of increase in tree cover in treated landscapes among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that restore degraded agricultural landscapes and improve ecosystem and soil resilience.
Metric / Unit of Measurement	% canopy cover
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	12%
Baseline Year	2025
Target	≥30%
Target Year	2030
Data Source(s)	Satellite imagery, NDVI & forest cover analyses; relevant sector monitoring datasets.
Means of Verification	Satellite imagery, NDVI & forest cover analyses
Data Collection Method	Compile georeferenced field data and analyse GIS/remote-sensing information using consistent boundaries and classifications.
Disaggregation	District; EPA; land-use type; intervention type; farm/landscape category.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant forestry and land-management institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA3-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	Reduction in land degradation severity in intervention areas
Indicator Definition	Change in the severity of land degradation in intervention areas using the agreed soil/land degradation index.

Field	Description
Purpose / Relevance to Adaptation	Assesses longer-term results that restore degraded agricultural landscapes and improve ecosystem and soil resilience.
Metric / Unit of Measurement	Soil/land degradation index
Calculation Method	Compare the current standardized land degradation index with the baseline.
Formula	$\frac{[(\text{Baseline index} - \text{Current index}) \div \text{Baseline index}] \times 100}{100}$
Numerator	Difference between baseline and current degradation index.
Denominator	Baseline degradation index.
Baseline	80%
Baseline Year	2025
Target	≥50% improvement
Target Year	2030
Data Source(s)	SLM assessments, Environmental audits, ELD indicators; relevant sector monitoring datasets.
Means of Verification	SLM assessments, Environmental audits, ELD indicators
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA; land-use type; intervention type; farm/landscape category.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant forestry and land-management institutions.
Data Quality / Verification	Use a standardized index and scoring protocol across periods; retain underlying component data and document any methodological changes.
Methodological Notes / Assumptions	Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

STRATEGY 3. CLIMATE SMART AGRICULTURE (CSA)

Adaptation Action 4: Conduct capacity building (and/or refresher) sessions on CSA to all Extension Workers and Lead Farmers, cascading to the end-user farmer

IDS AGR-AA4-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of Extension Workers and Lead Farmers attending CSA training sessions
Indicator Definition	Count of qualifying Extension Workers and Lead Farmers attending CSA training sessions recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	Number of sessions
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 100,000$ Extension Workers and Lead Farmers (disaggregated by gender)
Target Year	2030
Data Source(s)	MoA/DAECC training reports, attendance records; relevant programme and administrative datasets.
Means of Verification	MoA/DAECC training reports, attendance records
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.

Field	Description
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. The indicator counts people while the stated metric is “Number of sessions”; report unique participants as the primary count and retain session totals as a supporting measure. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA4-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	% of Extension Workers trained on CSA modules
Indicator Definition	Percentage measure of of extension workers trained on csa modules among the defined target population or area.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	% of total Extension Staff
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	15%
Baseline Year	2025
Target	≥95%
Target Year	2030
Data Source(s)	EPA training registers, DARS records; relevant programme and administrative datasets.
Means of Verification	EPA training registers, DARS records
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.

Field	Description
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA4-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% of smallholder farmers adopting at least one CSA practice due to training cascade
Indicator Definition	Percentage measure of of smallholder farmers adopting at least one csa practice due to training cascade among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	% of trained HHs adopting CSA
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	20%
Baseline Year	2025
Target	≥75%
Target Year	2030
Data Source(s)	Farmer adoption surveys, EPA field monitoring; underlying survey datasets and administrative monitoring records.
Means of Verification	Farmer adoption surveys, EPA field monitoring
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA4-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	Increase in average agricultural productivity among CSA-trained farmers
Indicator Definition	Change in average crop productivity among farmers trained in Climate Smart Agriculture.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	% change in yield (kg/ha)
Calculation Method	Compare current average yield with the baseline average yield using the same crop and area basis.
Formula	$[(\text{Current yield} - \text{Baseline yield}) \div \text{Baseline yield}] \times 100$
Numerator	Difference between current and baseline yield.
Denominator	Baseline yield.
Baseline	Variable
Baseline Year	2025
Target	≥35% yield improvement (disaggregated by value chain)
Target Year	2030
Data Source(s)	MoA yield monitoring datasets, seasonal crop reports; relevant programme and administrative datasets.
Means of Verification	MoA yield monitoring datasets, seasonal crop reports
Data Collection Method	Collect seasonal field/producer production data using standardized measurement units and aggregate annually.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Seasonal data collection; annual reporting.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 5: Promote peer-to-peer transfer of climate-resilient farming practices that reduce vulnerability to climate variability

IDS AGR-AA5-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of farmer peer-to-peer transfer visits conducted per year
Indicator Definition	Count of qualifying farmer peer-to-peer transfer visits conducted per year recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	No. of visits
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 100 per year
Target Year	2030
Data Source(s)	District Extension Office records, exchange logs; relevant programme and administrative datasets.
Means of Verification	District Extension Office records, exchange logs
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, with routine activity tracking during the year.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA5-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of farmers participating in peer-to-peer transfer visits
Indicator Definition	Count of qualifying farmers participating in peer-to-peer transfer visits recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	Number of participants
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 20,000$ total
Target Year	2030
Data Source(s)	Attendance records, participant registers; relevant programme and administrative datasets.
Means of Verification	Attendance records, participant registers
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA5-03 (Outcome)

Field	Description
Indicator Level	Outcome

Field	Description
Indicator Name	% of participating farmers applying new CSA practices learned
Indicator Definition	Percentage measure of of participating farmers applying new csa practices learned among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	% of participants
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	10%
Baseline Year	2025
Target	≥70%
Target Year	2030
Data Source(s)	Follow-up surveys, extension agent verification; underlying survey datasets and administrative monitoring records.
Means of Verification	Follow-up surveys, extension agent verification
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA5-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% increase in resilience indicators (income diversity, food security, input efficiency)

Field	Description
Indicator Definition	Change in a composite resilience score covering income diversity, food security and input-use efficiency among participating households.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	Composite resilience index
Calculation Method	Apply the agreed standardized index and compare the current score with the baseline score.
Formula	$\frac{[(\text{Current index} - \text{Baseline index}) \div \text{Baseline index}] \times 100}{100}$
Numerator	Difference between current and baseline index score.
Denominator	Baseline index score.
Baseline	Low baseline
Baseline Year	2025
Target	≥50% improvement
Target Year	2030
Data Source(s)	Household surveys, CSA impact evaluations; underlying survey datasets and administrative monitoring records.
Means of Verification	Household surveys, CSA impact evaluations
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 6: Disseminate Climate Risk Maps in all Agro-Ecological Areas (AEAs) and generate the Maps where not available

IDS AGR-AA6-01 (Output)

Field	Description
Indicator Level	Output

Field	Description
Indicator Name	No. of Climate Risk Maps developed or updated across AEAs
Indicator Definition	Measure of no. of Climate Risk Maps developed or updated across AEAs under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	% of AEAs with maps
Calculation Method	Count AEAs with a current Climate Risk Map and compare with total AEAs.
Formula	$(\text{AEAs with current Climate Risk Maps} \div \text{Total AEAs}) \times 100$
Numerator	Number of AEAs with a current map.
Denominator	Total number of AEAs.
Baseline	40 AEAs
Baseline Year	2025
Target	198 AEAs
Target Year	2030
Data Source(s)	DoDMA, DCCMS, EPA coordination records; relevant programme and administrative datasets.
Means of Verification	DoDMA, DCCMS, EPA coordination records
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	AEA; district; map/activity type; planning level; climate hazard.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; DCCMS; DoDMA; District Agriculture Offices/EPAs.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA6-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of dissemination activities conducted (e.g., trainings, briefings, posters)

Field	Description
Indicator Definition	Count of qualifying dissemination activities conducted (e.g., trainings, briefings, posters) recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	Number of events/materials
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 500 activities
Target Year	2030
Data Source(s)	Training logs, AEA dissemination reports; relevant programme and administrative datasets.
Means of Verification	Training logs, AEA dissemination reports
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	AEA; district; map/activity type; planning level; climate hazard.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; DCCMS; DoDMA; District Agriculture Offices/EPAs.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA6-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% of AEA planning decisions that incorporate Climate Risk Map information

Field	Description
Indicator Definition	Proportion of relevant AEA planning decisions that explicitly use Climate Risk Map information.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	% of decisions using CRM
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	Very low
Baseline Year	2025
Target	≥90% of planning processes
Target Year	2030
Data Source(s)	District agriculture plans, documentation reviews; relevant sector monitoring datasets.
Means of Verification	District agriculture plans, documentation reviews
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	AEA; district; map/activity type; planning level; climate hazard.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; DCCMS; DoDMA; District Agriculture Offices/EPAs.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA6-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% reduction in climate-related agricultural losses due to informed planning
Indicator Definition	Reduction in crop and income losses attributable to climate events in areas using climate-risk information for planning.

Field	Description
Purpose / Relevance to Adaptation	Assesses longer-term results that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	% loss (crop failures, income loss)
Calculation Method	Compare current climate-related agricultural losses with the baseline loss level.
Formula	$[(\text{Baseline loss} - \text{Current loss}) \div \text{Baseline loss}] \times 100$
Numerator	Difference between baseline and current agricultural loss.
Denominator	Baseline climate-related agricultural loss.
Baseline	High climate loss exposure
Baseline Year	2025
Target	≥50% reduction
Target Year	2030
Data Source(s)	District loss and damage data, risk-adjusted yield records; relevant programme and administrative datasets.
Means of Verification	District loss and damage data, risk-adjusted yield records
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	AEA; district; map/activity type; planning level; climate hazard.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; DCCMS; DoDMA; District Agriculture Offices/EPAs.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 7: Strengthen Agrometeorological Services for Climate-Resilient Agriculture

Objective: *Strengthen the capacity of Malawi's agrometeorological services to support climate-resilient agriculture and improve food security.*

IDS AGR-AA7-01 (Output)

Field	Description
Indicator Level	Output

Field	Description
Indicator Name	No. of advisories targeting farmers
Indicator Definition	Count of qualifying advisories targeting farmers recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	count
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	28
Baseline Year	2025
Target	36
Target Year	2030
Data Source(s)	MOA/ DCCMS; relevant sector monitoring datasets.
Means of Verification	MOA/ DCCMS
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	Advisory/platform type; geographic coverage; delivery channel; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	DCCMS; Ministry of Agriculture; agricultural extension services.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA7-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	Use of digitized platforms to provide climate advisories
Indicator Definition	Number of operational digitized platforms used to deliver climate advisories to farmers.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve climate-informed and climate-smart agricultural decision-making and practice adoption.

Field	Description
Metric / Unit of Measurement	count
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	1
Baseline Year	2025
Target	2
Target Year	2030
Data Source(s)	DCCMS; relevant sector monitoring datasets.
Means of Verification	DCCMS
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	Advisory/platform type; geographic coverage; delivery channel; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	DCCMS; Ministry of Agriculture; agricultural extension services.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA7-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% of farmers integrating climate in their planning
Indicator Definition	Percentage of farmers who use climate information or advisories in farm planning and production decisions.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	%
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator $\div$ Denominator) $\times$ 100
Numerator	Number of units meeting the indicator criterion.

Field	Description
Denominator	Total eligible units assessed.
Baseline	<10%
Baseline Year	2025
Target	≥50%
Target Year	2030
Data Source(s)	Extension services; relevant sector monitoring datasets.
Means of Verification	Extension services
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual.
Responsible Institution(s)	DCCMS; Ministry of Agriculture; agricultural extension services.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA7-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% increase in yields
Indicator Definition	Percentage improvement in crop yields associated with strengthened agrometeorological information and advisory services.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve climate-informed and climate-smart agricultural decision-making and practice adoption.
Metric / Unit of Measurement	%
Calculation Method	Compare current average yield with the baseline average yield using the same crop and area basis.
Formula	$[(\text{Current yield} - \text{Baseline yield}) \div \text{Baseline yield}] \times 100$
Numerator	Difference between current and baseline yield.
Denominator	Baseline yield.
Baseline	5%
Baseline Year	2025
Target	≥20%

Field	Description
Target Year	2030
Data Source(s)	Extension services/DCCMS; relevant sector monitoring datasets.
Means of Verification	Extension services/DCCMS
Data Collection Method	Collect seasonal field/producer production data using standardized measurement units and aggregate annually.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Seasonal data collection; annual reporting.
Responsible Institution(s)	DCCMS; Ministry of Agriculture; agricultural extension services.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

STRATEGY 4. CONSERVATION AGRICULTURE

Adaptation Action 8: Strengthen Conservation Agriculture learning hubs that support widespread adoption of soil- and water-conserving practices to reduce climate-induced crop losses i.e Farmer field schools.

IDS AGR-AA8-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	Conservation Agriculture curriculum developed and approved that support widespread adoption of soil- and water-conserving practices to reduce climate-induced crop losses
Indicator Definition	Existence of an approved Conservation Agriculture curriculum that supports widespread adoption of soil- and water-conserving practices.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	Existence of curriculum
Calculation Method	Verify whether the approved national curriculum exists and has formal approval.
Formula	1 = curriculum developed and approved; 0 = not yet achieved
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	1 national curriculum developed
Target Year	2030
Data Source(s)	MoA/DARS documentation, education authority endorsement; relevant sector monitoring datasets.
Means of Verification	MoA/DARS documentation, education authority endorsement
Data Collection Method	Review and record approved documents and administrative records using a standardized document checklist.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Cross-check reported values against the stated means of verification and apply routine completeness and consistency checks.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA8-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of stakeholders oriented on the new curriculum (e.g., extension workers, lead farmers)
Indicator Definition	Count of qualifying stakeholders oriented on the new curriculum (e.g., extension workers, lead farmers) recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	Number trained
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 5,000$ individuals
Target Year	2030
Data Source(s)	Workshop reports, training records; relevant programme and administrative datasets.
Means of Verification	Workshop reports, training records
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA8-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% of extension workers applying curriculum in field engagement
Indicator Definition	Percentage measure of of extension workers applying curriculum in field engagement among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	% of users
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	TBD
Baseline Year	2025
Target	≥90%
Target Year	2030
Data Source(s)	Extension monitoring reports, EPA verification; relevant programme and administrative datasets.
Means of Verification	Extension monitoring reports, EPA verification
Data Collection Method	Review and record approved documents and administrative records using a standardized document checklist.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA8-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% increase in adoption of crop residue retention and rotation practices in target zones
Indicator Definition	Percentage measure of increase in adoption of crop residue retention and rotation practices in target zones among the defined target population or area.
Purpose / Relevance to Adaptation	Assesses longer-term results that increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	% of adopters
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	<15%
Baseline Year	2025
Target	≥30%
Target Year	2030
Data Source(s)	Agricultural surveys, farm-level tracking data; underlying survey datasets and administrative monitoring records.
Means of Verification	Agricultural surveys, farm-level tracking data
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 9: Periodically update the curriculum for training Extension Workers/Agents in Conservation Agriculture

IDS AGR-AA9-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of curriculum updates completed and validated by MoA
Indicator Definition	Count of qualifying curriculum updates completed and validated by MoA recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	Number of updates
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 3 major updates by 2030
Target Year	2030
Data Source(s)	Curriculum revision reports, MoA approval minutes; relevant programme and administrative datasets.
Means of Verification	Curriculum revision reports, MoA approval minutes
Data Collection Method	Review and record approved documents and administrative records using a standardized document checklist.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA9-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	% of Extension Workers trained on updated curriculum content
Indicator Definition	Percentage measure of of extension workers trained on updated curriculum content among the defined target population or area.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	% of workforce
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	10%
Baseline Year	2025
Target	≥95% of active staff
Target Year	2030
Data Source(s)	Training records, DAECC/EPA reports; relevant programme and administrative datasets.
Means of Verification	Training records, DAECC/EPA reports
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA9-03 (Outcome)

Field	Description
Indicator Level	Outcome

Field	Description
Indicator Name	% improvement in extension service quality in CA practices
Indicator Definition	Percentage measure of improvement in extension service quality in ca practices among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	Farmer feedback scores
Calculation Method	Compare the current value with the baseline using the same measurement method.
Formula	$[(\text{Current value} - \text{Baseline value}) \div \text{Baseline value}] \times 100$
Numerator	Difference between current and baseline value.
Denominator	Baseline value.
Baseline	Moderate
Baseline Year	2025
Target	≥50% improvement
Target Year	2030
Data Source(s)	Farmer perception surveys, field audits; underlying survey datasets and administrative monitoring records.
Means of Verification	Farmer perception surveys, field audits
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA9-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	Increased efficiency and consistency in CA delivery across districts

Field	Description
Indicator Definition	Degree to which Conservation Agriculture extension is delivered consistently and efficiently across districts using a common performance standard.
Purpose / Relevance to Adaptation	Assesses longer-term results that increase adoption and quality of Conservation Agriculture practices that conserve soil and water.
Metric / Unit of Measurement	Qualitative and quantitative performance index
Calculation Method	Apply the agreed standardized index and compare the current score with the baseline score.
Formula	$\frac{[(\text{Current index} - \text{Baseline index}) \div \text{Baseline index}] \times 100}{100}$
Numerator	Difference between current and baseline index score.
Denominator	Baseline index score.
Baseline	Inconsistent
Baseline Year	2025
Target	Harmonized delivery in ≥90% of districts
Target Year	2030
Data Source(s)	M&E evaluations, annual performance reviews; relevant sector monitoring datasets.
Means of Verification	M&E evaluations, annual performance reviews
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Cross-check reported values against the stated means of verification and apply routine completeness and consistency checks.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

STRATEGY 5. IMPROVE SOIL FERTILITY

Adaptation Action 10: Promotion of production of inorganic fertilizers and use of the same in targeted compost sites to increase soil carbon stock retention and reduce N₂ O emissions

IDS AGR-AA10-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of compost sites using inorganic fertilizers for enhanced carbon retention
Indicator Definition	Count of qualifying compost sites using inorganic fertilizers for enhanced carbon retention recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Number of active sites
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥500 composting sites
Target Year	2030
Data Source(s)	District agriculture records, compost facility logs; relevant programme and administrative datasets.
Means of Verification	District agriculture records, compost facility logs
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA10-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of training sessions on integrated soil fertility and N₂ O reduction held
Indicator Definition	Count of qualifying training sessions on integrated soil fertility and N ₂ O reduction held recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Number of trainings
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥300 sessions
Target Year	2030
Data Source(s)	EPA/MoA training reports; relevant programme and administrative datasets.
Means of Verification	EPA/MoA training reports
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA10-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% of trained farmers using integrated composting with targeted inorganic fertilizers
Indicator Definition	Percentage measure of of trained farmers using integrated composting with targeted inorganic fertilizers among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	% of adopters
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	Low (<10%)
Baseline Year	2025
Target	≥60% of trained farmers
Target Year	2030
Data Source(s)	Extension reports, farmer surveys; underlying survey datasets and administrative monitoring records.
Means of Verification	Extension reports, farmer surveys
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA10-04 (Impact)

Field	Description
Indicator Level	Impact

Field	Description
Indicator Name	% reduction in N₂ O emissions from fertilizer use in target districts
Indicator Definition	Percentage reduction in estimated nitrous oxide emissions associated with fertilizer use in target districts.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Emission estimates
Calculation Method	Estimate fertilizer-related N ₂ O emissions using the agreed national/IPCC method and compare with baseline.
Formula	$\frac{[(\text{Baseline N}_2 \text{ O emissions} - \text{Current N}_2 \text{ O emissions}) \div \text{Baseline N}_2 \text{ O emissions}] \times 100}{}$
Numerator	Difference between baseline and current N ₂ O emissions.
Denominator	Baseline N ₂ O emissions.
Baseline	High emissions
Baseline Year	2025
Target	≥30% reduction
Target Year	2030
Data Source(s)	Emission inventories, GHG modelling reports (MoECC, IPCC tools); relevant programme and administrative datasets.
Means of Verification	Emission inventories, GHG modelling reports (MoECC, IPCC tools)
Data Collection Method	Compile verified activity data and estimate emissions using the approved national/IPCC-compatible methodology.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Continuous/periodic monitoring; annual reporting.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 11: Procure legumes and distribute other multiple impact crops for soil fertility and dietary improvement

IDS AGR-AA11-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of legume seed packs and multi-impact crops distributed
Indicator Definition	Count of qualifying legume seed packs and multi-impact crops distributed recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Number of packs
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 2 million packs
Target Year	2030
Data Source(s)	Distribution reports, procurement records; relevant programme and administrative datasets.
Means of Verification	Distribution reports, procurement records
Data Collection Method	Reconcile procurement or inventory records with delivery/distribution records and verified recipient or site information.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA11-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	% of targeted farmers receiving soil-enhancing legumes and crops
Indicator Definition	Percentage measure of of targeted farmers receiving soil-enhancing legumes and crops among the defined target population or area.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	% of target farmers
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	TBD
Baseline Year	2025
Target	≥80%
Target Year	2030
Data Source(s)	EPA field distribution records; relevant programme and administrative datasets.
Means of Verification	EPA field distribution records
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA11-03 (Outcome)

Field	Description
Indicator Level	Outcome

Field	Description
Indicator Name	% increase in area under legume-based rotations and intercropping
Indicator Definition	Percentage measure of increase in area under legume-based rotations and intercropping among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Hectares
Calculation Method	Compare the current value with the baseline using the same measurement method.
Formula	$[(\text{Current value} - \text{Baseline value}) \div \text{Baseline value}] \times 100$
Numerator	Difference between current and baseline value.
Denominator	Baseline value.
Baseline	Low (<15%)
Baseline Year	2025
Target	≥65%
Target Year	2030
Data Source(s)	Crop rotation maps, farmer plot data; relevant sector monitoring datasets.
Means of Verification	Crop rotation maps, farmer plot data
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; land-use type; crop/practice/intervention type.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. The source combines a hectare metric with percentage baseline/target values; report both hectares and proportional coverage until the reporting convention is formally validated.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA11-04 (Impact)

Field	Description
Indicator Level	Impact

Field	Description
Indicator Name	Improvement in soil nutrient status and dietary diversity scores
Indicator Definition	Improvement in soil nutrient status and household dietary diversity, measured through soil testing and HDDS-related household data.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Soil tests, household dietary surveys
Calculation Method	Measure soil nutrient indicators and HDDS separately and compare each with its baseline.
Formula	Improvement (%) = [(Current value – Baseline value) ÷ Baseline value] × 100, calculated separately for soil N-content and HDDS
Numerator	Difference between current and baseline value for each component.
Denominator	Baseline value for each component.
Baseline	Low
Baseline Year	2025
Target	≥50% increase in N-content and HDDS score
Target Year	2030
Data Source(s)	Soil lab reports, NSO/IHS data; relevant programme and administrative datasets.
Means of Verification	Soil lab reports, NSO/IHS data
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; DARS; District Agriculture Offices/EPAs; relevant technical institutions.
Data Quality / Verification	Cross-check reported values against the stated means of verification and apply routine completeness and consistency checks.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 12: Adopt use of Soil Fertility Monitoring Tools

IDS AGR-AA12-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of farmer outreach sessions promoting soil testing tool use
Indicator Definition	Count of qualifying farmer outreach sessions promoting soil testing tool use recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Number of sessions
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 1,000$ sessions
Target Year	2030
Data Source(s)	EPA extension plans, attendance logs; relevant programme and administrative datasets.
Means of Verification	EPA extension plans, attendance logs
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA12-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of IEC materials on soil monitoring distributed
Indicator Definition	Count of qualifying IEC materials on soil monitoring distributed recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Number of materials
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 250,000$ materials
Target Year	2030
Data Source(s)	Communication and outreach records; relevant programme and administrative datasets.
Means of Verification	Communication and outreach records
Data Collection Method	Reconcile procurement or inventory records with delivery/distribution records and verified recipient or site information.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA12-03 (Outcome)

Field	Description
Indicator Level	Outcome

Field	Description
Indicator Name	% of smallholder farmers routinely using soil fertility monitoring tools
Indicator Definition	Percentage measure of of smallholder farmers routinely using soil fertility monitoring tools among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	% adoption
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	Very low (<5%)
Baseline Year	2025
Target	≥60%
Target Year	2030
Data Source(s)	Household surveys, extension officer records; underlying survey datasets and administrative monitoring records.
Means of Verification	Household surveys, extension officer records
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; EPA; sex; youth; participant/household category; practice or crop where relevant.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA12-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% increase in appropriate input use and crop response efficiency

Field	Description
Indicator Definition	Improvement in crop output obtained per unit of agricultural input following use of soil fertility information.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve soil fertility management, input efficiency and resilient crop production.
Metric / Unit of Measurement	Yield per input ratio
Calculation Method	Calculate crop output per unit of relevant input and compare with the baseline ratio.
Formula	Yield per input ratio = Crop output ÷ Input used; improvement = [(Current ratio – Baseline ratio) ÷ Baseline ratio] × 100
Numerator	Crop output, or change in the yield-per-input ratio.
Denominator	Quantity/cost of relevant input, or baseline ratio.
Baseline	Low input efficiency
Baseline Year	2025
Target	≥40% improvement
Target Year	2030
Data Source(s)	Yield and cost-benefit analyses, EPA monitoring; relevant sector monitoring datasets.
Means of Verification	Yield and cost-benefit analyses, EPA monitoring
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; EPA/AEA where relevant; intervention type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; District Agriculture Offices/EPAs; relevant extension structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

STRATEGY 6. CROP DIVERSIFICATION

Adaptation Action 13: Promote periodic research in alternative climate-suitable crop portfolios

IDS AGR-AA13-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of research studies commissioned on climate-suitable crops
Indicator Definition	Count of qualifying research studies commissioned on climate-suitable crops recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	Number of studies
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 30 research studies
Target Year	2030
Data Source(s)	MoA/DARS annual reports, research publications; relevant programme and administrative datasets.
Means of Verification	MoA/DARS annual reports, research publications
Data Collection Method	Review and record approved documents and administrative records using a standardized document checklist.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture/DARS; research institutions; District Agriculture Offices.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA13-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of AEAs with updated crop suitability profiles
Indicator Definition	Coverage of Agro-Ecological Areas with current crop suitability profiles based on relevant climate and agro-ecological information.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	% of AEAs
Calculation Method	Count AEAs with an updated profile and divide by the total number of AEAs.
Formula	(AEAs with updated profiles ÷ Total AEAs) × 100
Numerator	Number of AEAs with updated crop suitability profiles.
Denominator	Total number of AEAs.
Baseline	<15%
Baseline Year	2025
Target	100% of AEAs
Target Year	2030
Data Source(s)	Crop zoning reports, DARS suitability maps; relevant programme and administrative datasets.
Means of Verification	Crop zoning reports, DARS suitability maps
Data Collection Method	Compile georeferenced field data and analyse GIS/remote-sensing information using consistent boundaries and classifications.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture/DARS; research institutions; District Agriculture Offices.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA13-03 (Outcome)

Field	Description
Indicator Level	Outcome

Field	Description
Indicator Name	% increase in policy and planning documents referencing new crop portfolio research
Indicator Definition	Percentage measure of increase in policy and planning documents referencing new crop portfolio research among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	% of plans incorporating findings
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	Low
Baseline Year	2025
Target	≥75%
Target Year	2030
Data Source(s)	MoA strategic documents, AEA plans; relevant sector monitoring datasets.
Means of Verification	MoA strategic documents, AEA plans
Data Collection Method	Review and record approved documents and administrative records using a standardized document checklist.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture/DARS; research institutions; District Agriculture Offices.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA13-04 (Impact)

Field	Description
Indicator Level	Impact

Field	Description
Indicator Name	% increase in climate-suitable crops integrated into production systems
Indicator Definition	Percentage measure of increase in climate-suitable crops integrated into production systems among the defined target population or area.
Purpose / Relevance to Adaptation	Assesses longer-term results that support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	% adoption across districts
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	Low (<10%)
Baseline Year	2025
Target	≥60%
Target Year	2030
Data Source(s)	Agricultural census, farm-level production records; relevant programme and administrative datasets.
Means of Verification	Agricultural census, farm-level production records
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture/DARS; research institutions; District Agriculture Offices.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 14: Identify and promote crop varieties that are better adapted to projected temperature increases and rainfall variability

IDS AGR-AA14-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of crop varieties that are better adapted to projected temperature increases and rainfall variability packed and distributed
Indicator Definition	Count of qualifying crop varieties that are better adapted to projected temperature increases and rainfall variability packed and distributed recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	Number distributed
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥5 million packs
Target Year	2030
Data Source(s)	Procurement logs, EPA distribution registers; relevant programme and administrative datasets.
Means of Verification	Procurement logs, EPA distribution registers
Data Collection Method	Compile georeferenced field data and analyse GIS/remote-sensing information using consistent boundaries and classifications.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture/DARS; District Agriculture Offices/EPAs; seed and input delivery institutions.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA14-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	% of vulnerable farming households receiving diversified input packages
Indicator Definition	Percentage measure of of vulnerable farming households receiving diversified input packages among the defined target population or area.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	% of target households
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	TBD
Baseline Year	2025
Target	≥80%
Target Year	2030
Data Source(s)	Extension delivery reports, targeting forms; relevant programme and administrative datasets.
Means of Verification	Extension delivery reports, targeting forms
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District/AEA; sex; youth; crop/value chain; household or farmer category.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture/DARS; District Agriculture Offices/EPAs; seed and input delivery institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA14-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% increase in land under alternative (non-maize) crop production
Indicator Definition	Percentage measure of increase in land under alternative (non-maize) crop production among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	% of cropped land
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	Low (<20%)
Baseline Year	2025
Target	≥65%
Target Year	2030
Data Source(s)	Land use surveys, district crop calendars; underlying survey datasets and administrative monitoring records.
Means of Verification	Land use surveys, district crop calendars
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Seasonal data collection; annual reporting.
Responsible Institution(s)	Ministry of Agriculture/DARS; District Agriculture Offices/EPAs; seed and input delivery institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA14-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% increase in household dietary diversity and income from alternative crops
Indicator Definition	Percentage measure of increase in household dietary diversity and income from alternative crops among the defined target population or area.
Purpose / Relevance to Adaptation	Assesses longer-term results that support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	 HDDS, income change
Calculation Method	Compare the current value with the baseline using the same measurement method.
Formula	$\frac{[(\text{Current value} - \text{Baseline value}) \div \text{Baseline value}] \times 100}{100}$
Numerator	Difference between current and baseline value.
Denominator	Baseline value.
Baseline	Low HDDS/income
Baseline Year	2025
Target	≥50% improvement
Target Year	2030
Data Source(s)	Household surveys (NSO/IHS), value chain studies; underlying survey datasets and administrative monitoring records.
Means of Verification	Household surveys (NSO/IHS), value chain studies
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District/AEA; sex; youth; crop/value chain; household or farmer category.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture/DARS; District Agriculture Offices/EPAs; seed and input delivery institutions.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 15: Strengthen market access for climate-resilient crops to incentivize farmer adoption of diversified, climate-adaptive production systems

IDS AGR-AA15-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of structured market platforms established or supported for climate-resilient crops
Indicator Definition	Count of qualifying structured market platforms established or supported for climate-resilient crops recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	Number of markets
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	Few informal markets
Baseline Year	2025
Target	≥ 50 structured market platforms
Target Year	2030
Data Source(s)	MoA/Ministry of Trade reports, District Market Inventories; relevant programme and administrative datasets.
Means of Verification	MoA/Ministry of Trade reports, District Market Inventories
Data Collection Method	Compile market, cooperative and transaction records and analyse values using consistent product and market classifications.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Ministry of Agriculture; Ministry responsible for Trade; District Agriculture Offices; farmer/cooperative market structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA15-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of farmers trained on structured market access and price negotiation for climate-resilient crops
Indicator Definition	Count of qualifying farmers trained on structured market access and price negotiation for climate-resilient crops recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	Number of farmers
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥100,000 farmers
Target Year	2030
Data Source(s)	Training rosters, Extension reports; relevant programme and administrative datasets.
Means of Verification	Training rosters, Extension reports
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District/AEA; sex; youth; crop/value chain; household or farmer category.
Reporting Frequency	Quarterly/seasonal monitoring; annual reporting.
Responsible Institution(s)	Ministry of Agriculture; Ministry responsible for Trade; District Agriculture Offices; farmer/cooperative market structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA15-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% of farmers selling through structured markets for climate-resilient crops
Indicator Definition	Percentage measure of of farmers selling through structured markets for climate-resilient crops among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	% of participating HHs
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	<10%
Baseline Year	2025
Target	≥70%
Target Year	2030
Data Source(s)	Cooperative records, buyer contracts, EPA surveys; underlying survey datasets and administrative monitoring records.
Means of Verification	Cooperative records, buyer contracts, EPA surveys
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District/AEA; sex; youth; crop/value chain; household or farmer category.
Reporting Frequency	Annual.
Responsible Institution(s)	Ministry of Agriculture; Ministry responsible for Trade; District Agriculture Offices; farmer/cooperative market structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA15-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% increase in price stability and market-driven production for climate-resilient crops
Indicator Definition	Improvement in farmgate price stability and consistency of market-oriented supply for climate-resilient crops.
Purpose / Relevance to Adaptation	Assesses longer-term results that support diversified, climate-suitable production systems and resilient agricultural markets.
Metric / Unit of Measurement	Farmgate price variance, crop supply stability
Calculation Method	Compare farmgate price variability and crop supply stability with baseline values.
Formula	Price stability improvement = [(Baseline variance – Current variance) ÷ Baseline variance] × 100; supply stability calculated consistently
Numerator	Difference between baseline and current variability/stability measures.
Denominator	Baseline variability/stability measure.
Baseline	High price volatility
Baseline Year	2025
Target	≥50% improvement
Target Year	2030
Data Source(s)	Market price data (AMIS), market traceability systems; relevant sector monitoring datasets.
Means of Verification	Market price data (AMIS), market traceability systems
Data Collection Method	Compile market, cooperative and transaction records and analyse values using consistent product and market classifications.
Disaggregation	District/AEA; crop/value chain; intervention or market type; reporting period.
Reporting Frequency	Quarterly/seasonal monitoring; annual reporting.
Responsible Institution(s)	Ministry of Agriculture; Ministry responsible for Trade; District Agriculture Offices; farmer/cooperative market structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.

Field	Description
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

STRATEGY 7. ANIMAL HEALTH AND LIVESTOCK DEVELOPMENT

Adaptation Action 16: Climate-proof livestock infrastructure (e.g. dip tanks, shelters, water points) to protect animals from climate-related stress and disease risks

IDS AGR-AA16-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of dip tanks, shelters, and water points constructed or rehabilitated
Indicator Definition	Count of qualifying dip tanks, shelters, and water points constructed or rehabilitated recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Number of units
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 200 dip tanks, shelters, and water points
Target Year	2030
Data Source(s)	DAHLD infrastructure registry, district reports; relevant programme and administrative datasets.
Means of Verification	DAHLD infrastructure registry, district reports
Data Collection Method	Compile georeferenced field data and analyse GIS/remote-sensing information using consistent boundaries and classifications.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA16-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	% of high-risk livestock zones covered by functional dip tanks, shelters, and water points
Indicator Definition	Percentage measure of of high-risk livestock zones covered by functional dip tanks, shelters, and water points among the defined target population or area.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	% of zones
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	<20%
Baseline Year	2025
Target	≥80%
Target Year	2030
Data Source(s)	GIS mapping of coverage; relevant sector monitoring datasets.
Means of Verification	GIS mapping of coverage
Data Collection Method	Compile georeferenced field data and analyse GIS/remote-sensing information using consistent boundaries and classifications.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA16-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% reduction in tick-borne and vector-related livestock diseases
Indicator Definition	Reduction in the prevalence of tick-borne and other vector-related livestock diseases in targeted areas.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Disease prevalence
Calculation Method	Calculate disease prevalence and compare the current rate with the baseline.
Formula	$\frac{[(\text{Baseline prevalence} - \text{Current prevalence}) \div \text{Baseline prevalence}] \times 100}{}$
Numerator	Difference between baseline and current disease prevalence.
Denominator	Baseline disease prevalence.
Baseline	High prevalence
Baseline Year	2025
Target	≥60% reduction
Target Year	2030
Data Source(s)	DAHLD Animal health surveillance reports/ Laboratory diagnosis reports; relevant programme and administrative datasets.
Means of Verification	DAHLD Animal health surveillance reports/ Laboratory diagnosis reports
Data Collection Method	Compile routine sector monitoring and administrative data from the stated sources and verify against supporting records.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Continuous/periodic monitoring; annual reporting.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA16-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% increase in livestock survival and productivity in treated areas
Indicator Definition	Improvement in livestock survival and productive performance in areas benefiting from climate-proofed livestock infrastructure.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Livestock population increase rates
Calculation Method	Compare the current value with the baseline using the same measurement method.
Formula	$\frac{[(\text{Current value} - \text{Baseline value}) \div \text{Baseline value}] \times 100}{100}$
Numerator	Difference between current and baseline value.
Denominator	Baseline value.
Baseline	Moderate
Baseline Year	2025
Target	≥40%
Target Year	2030
Data Source(s)	Livestock monitoring systems, producer records; relevant programme and administrative datasets.
Means of Verification	Livestock monitoring systems, producer records
Data Collection Method	Collect seasonal field/producer production data using standardized measurement units and aggregate annually.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Seasonal data collection; annual reporting.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 17: Promote climate-resilient livestock breeds with improved tolerance to heat, drought, and disease.

IDS AGR-AA17-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of breeding and cross-breeding centers established (including satellite breeding centres) for climate-resilient livestock breeds
Indicator Definition	Count of qualifying breeding and cross-breeding centers established (including satellite breeding centres) for climate-resilient livestock breeds recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Number of centers
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	≥ 30 stud centers for dairy, beef and goats
Target Year	2030
Data Source(s)	DAHLD records, facility assessments; relevant programme and administrative datasets.
Means of Verification	DAHLD records, facility assessments
Data Collection Method	Use administrative infrastructure records and physical/site verification to confirm completion and operational status.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA17-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	No. of improved climate-resilient livestock breeds distributed through centers
Indicator Definition	Count of qualifying improved climate-resilient livestock breeds distributed through centers recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Number of animals
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	TBD
Baseline Year	2025
Target	$\geq 100,000$ animals
Target Year	2030
Data Source(s)	Breeding center logs; relevant programme and administrative datasets.
Means of Verification	Breeding center logs
Data Collection Method	Use administrative infrastructure records and physical/site verification to confirm completion and operational status.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Annual, based on routine administrative records.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Establish and document the quantitative 2025 baseline before trend assessment. Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.

Field	Description
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA17-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	% increase in adoption of improved livestock breeds
Indicator Definition	Percentage measure of increase in adoption of improved livestock breeds among the defined target population or area.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	% adoption
Calculation Method	Divide the number of qualifying units by the total eligible units and multiply by 100.
Formula	(Numerator ÷ Denominator) × 100
Numerator	Number of units meeting the indicator criterion.
Denominator	Total eligible units assessed.
Baseline	Low (<15%)
Baseline Year	2025
Target	≥70%
Target Year	2030
Data Source(s)	Farmer surveys, extension officer field logs; underlying survey datasets and administrative monitoring records.
Means of Verification	Farmer surveys, extension officer field logs
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Because the framework expresses the baseline/target as percentage levels, report the current level against the stated target; retain the approved indicator name.

Field	Description
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA17-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	Increase in productivity and climate resilience of livestock herds
Indicator Definition	Improvement in livestock productive performance and ability to maintain performance under heat, drought and disease stress.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Productivity index
Calculation Method	Apply the agreed standardized index and compare the current score with the baseline score.
Formula	$\frac{[(\text{Current index} - \text{Baseline index}) \div \text{Baseline index}] \times 100}{100}$
Numerator	Difference between current and baseline index score.
Denominator	Baseline index score.
Baseline	Low resilience
Baseline Year	2025
Target	≥50% improvement
Target Year	2030
Data Source(s)	Livestock yield records, breeding success rates; relevant programme and administrative datasets.
Means of Verification	Livestock yield records, breeding success rates
Data Collection Method	Collect seasonal field/producer production data using standardized measurement units and aggregate annually.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Seasonal data collection; annual reporting.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Use consistent measurement units and reference periods; verify sampled field/producer records and check outliers.
Methodological Notes / Assumptions	Translate the qualitative baseline into a quantitative 2025 reference value using the same method used for subsequent reporting. Where the indicator contains more than one result dimension, calculate and report each component separately before overall interpretation.

Field	Description
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.

Adaptation Action 18: Expand Drought-Tolerant Pastures (Napier and Brachiaria)

IDS AGR-AA18-01 (Output)

Field	Description
Indicator Level	Output
Indicator Name	Total land area under improved pastures (Napier and Brachiaria)
Indicator Definition	Total hectares established under improved drought-tolerant Napier and Brachiaria pastures.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Hectares (ha)
Calculation Method	Sum verified hectares established under Napier and Brachiaria pastures.
Formula	Total improved pasture area (ha) = Σ verified hectares under Napier + Brachiaria
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	Napier: 30,000 ha (existing NDC baseline); Brachiaria: 8 ha (Mchinji only)
Baseline Year	2025
Target	Napier: +6,000 ha (total 36,000 ha); Brachiaria: 800 ha nationwide
Target Year	2030
Data Source(s)	MoA livestock production records; Remote sensing & GIS mapping; District Agricultural Extension reports; relevant programme and administrative datasets.
Means of Verification	MoA livestock production records; Remote sensing & GIS mapping; District Agricultural Extension reports
Data Collection Method	Compile georeferenced field data and analyse GIS/remote-sensing information using consistent boundaries and classifications.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Annual.
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.

Field	Description
Data Quality / Verification	Cross-check reported values against the stated means of verification and apply routine completeness and consistency checks.
Methodological Notes / Assumptions	The source table is visibly column-shifted for this row; this IDS interprets “Hectares (ha)” as the metric, the NDC pasture areas as the baseline, and the pasture expansion values as the 2030 target.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA18-02 (Output)

Field	Description
Indicator Level	Output
Indicator Name	Number of farmers trained in pasture establishment and management
Indicator Definition	Count of qualifying number of farmers trained in pasture establishment and management recorded under the adaptation action.
Purpose / Relevance to Adaptation	Tracks delivery of activities and services needed to improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Number of farmers
Calculation Method	Count unique qualifying units completed, distributed, established, trained or recorded during the reporting period.
Formula	Total = Σ qualifying unique units recorded
Numerator	Not applicable.
Denominator	Not applicable.
Baseline	<500 farmers trained (isolated initiatives)
Baseline Year	2025
Target	5,000 livestock farmers trained across 15 districts
Target Year	2030
Data Source(s)	Training reports; Extension service databases; FAO/NGO project documentation; relevant programme and administrative datasets.
Means of Verification	Training reports; Extension service databases; FAO/NGO project documentation
Data Collection Method	Compile standardized attendance, training or activity registers at each event and aggregate verified unique records.
Disaggregation	District; sex; livestock species/breed; producer category; intervention type.
Reporting Frequency	Annual, based on routine administrative records.

Field	Description
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Reconcile source registers and reports; use unique identifiers where possible; remove duplicate records and verify a sample.
Methodological Notes / Assumptions	Count each qualifying unit once; keep repeat or refresher activities identifiable to prevent double counting.
Link to Adaptation Result	Tracks delivery of the immediate products, services or capacities required to implement this adaptation action.

IDS AGR-AA18-03 (Outcome)

Field	Description
Indicator Level	Outcome
Indicator Name	Average forage yield per hectare under drought conditions
Indicator Definition	Average dry-matter forage yield per hectare from Napier and Brachiaria pastures under drought conditions.
Purpose / Relevance to Adaptation	Measures whether implementation is leading to changes that improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Tonnes of dry matter/ha
Calculation Method	Measure dry-matter forage harvested from sampled pasture area under drought conditions.
Formula	Forage yield (t DM/ha) = Total dry matter harvested (t) ÷ Area harvested (ha)
Numerator	Total dry matter harvested from sampled plots.
Denominator	Total sampled pasture area in hectares.
Baseline	Napier: ~5 tonnes/ha; Brachiaria: ~3 tonnes/ha
Baseline Year	2025
Target	Napier: ≥12 tonnes/ha; Brachiaria: ≥10 tonnes/ha
Target Year	2030
Data Source(s)	On-farm yield surveys; MoA technical reports; Field performance monitoring; underlying survey datasets and administrative monitoring records.
Means of Verification	On-farm yield surveys; MoA technical reports; Field performance monitoring
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; livestock species/breed; infrastructure/technology type; production system; reporting period.
Reporting Frequency	Seasonal data collection; annual reporting.

Field	Description
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Use consistent measurement units and reference periods; verify sampled field/producer records and check outliers.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Shows whether the adaptation action is changing practices, access, behaviour or service performance as intended.

IDS AGR-AA18-04 (Impact)

Field	Description
Indicator Level	Impact
Indicator Name	% reduction in feed shortage period for livestock producers
Indicator Definition	Reduction in the annual period during which livestock producers experience inadequate feed supply.
Purpose / Relevance to Adaptation	Assesses longer-term results that improve livestock health, productivity and resilience to climate-related stress.
Metric / Unit of Measurement	Percentage of months with adequate feed supply
Calculation Method	Record months of feed shortage each year and compare with the baseline; also report months with adequate feed.
Formula	$\frac{[(\text{Baseline shortage months} - \text{Current shortage months}) \div \text{Baseline shortage months}] \times 100}{}$
Numerator	Reduction in annual feed-shortage months.
Denominator	Baseline annual feed-shortage months.
Baseline	4–5 months of annual feed scarcity
Baseline Year	2025
Target	Feed scarcity reduced to ≤ 2 months per year by 2030
Target Year	2030
Data Source(s)	Annual livestock feed availability assessments; National Livestock Statistics Bulletin; MoA monitoring surveys; underlying survey datasets and administrative monitoring records.
Means of Verification	Annual livestock feed availability assessments; National Livestock Statistics Bulletin; MoA monitoring surveys
Data Collection Method	Use periodic structured surveys, supported by field or administrative verification where available.
Disaggregation	District; sex; livestock species/breed; producer category; intervention type.
Reporting Frequency	Annual, with routine activity tracking during the year.

Field	Description
Responsible Institution(s)	Department of Animal Health and Livestock Development (DAHLD), Ministry of Agriculture; District livestock/veterinary structures.
Data Quality / Verification	Validate numerator and denominator, apply consistent definitions and sampling, and cross-check results against source records or field verification.
Methodological Notes / Assumptions	Apply a consistent definition, reference population/area and measurement method across reporting periods.
Link to Adaptation Result	Demonstrates the longer-term resilience, productivity, livelihood or environmental result expected from the adaptation action.