Plan Overview

A Data Management Plan created using DMPonline

Title: Reducing postharvest losses of tomatoes among smallholder horticultural farmers in Zimbabwe

Creator: Midzi Ndlovu

Principal Investigator: Prayer Gavhanga, Panashe Matikiti, CLEOPATRA NYAMBO

Data Manager: Midzi Ndlovu

Affiliation: Other

Template: DCC Template

Project abstract:

Postharvest losses (PHL) in tomatoes among smallholder farmers in Zimbabwe are a major constraint to income generation and food security. Reported losses range between 20% and 50%, largely caused by poor handling, inadequate packaging, inefficient transport, lack of cold chain infrastructure, and weak market access (Affognon et al., 2015; Macheka et al., 2018). Evidence from regional and national studies indicates that farmer training, improved packaging, decentralized packhouses, low-cost cooling systems, and strengthened market linkages can significantly reduce such losses (Stathers et al., 2020; Molelekoa et al., 2025) However, research gaps remain in evaluating the long-term adoption and economic viability of these interventions within Zimbabwe’s smallholder context.

ID: 190930

Start date: 11-11-2025

End date: 20-11-2025

Last modified: 14-11-2025

Copyright information:

The above plan creator(s) have agreed that others may use as much of the text of this plan as they would like in their own plans, and customise it as necessary. You do not need to credit the creator(s) as the source of the language used, but using any of the plan's text does not imply that the creator(s) endorse, or have any relationship to, your project or proposal

Reducing postharvest losses of tomatoes among smallholder horticultural farmers in Zimbabwe

Data Collection

What data will you collect or create?

- Farm-level production & harvest data (kg harvested, kg sold, kg lost)
- Postharvest loss measurements (weight, % loss by cause, shelf-life days)
- Market price/time-series (local markets)
- Weather summaries (temperature, relative humidity sourced from nearest station)
- Training attendance and pre/post knowledge test scores

How will the data be collected or created?

Use standardized survey instruments (paper or tablet).
Use KoboToolbox or ODK forms

Documentation and Metadata

What documentation and metadata will accompany the data?

- Title
- Creator(s) (name, affiliation, contact email)
- Date of collection (YYYY-MM-DD)
- Geographic coverage (district, GPS bounding box)
- Data type (survey, photo)

Ethics and Legal Compliance

How will you manage any ethical issues?

- Obtain written informed consent from all participants; include permission for photos and data sharing, or request anonymization if they object.
- Where personal data are collected (names, phone numbers, GPS coordinates tied to individuals), anonymize before wider sharing: remove direct identifiers, replace with pseudonyms/IDs, and

aggregate spatial data to village/ward if needed.
- Follow relevant Zimbabwean laws and institutional ethics approvals (document reference numbers).
- Restricted data (personal identifiers, sensitive interview parts) will be stored in an access-controlled folder; access granted only to named team members after justification.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

Licensing the Outputs
Acknowledge and Respect Third-Party Content

Storage and Backup

How will the data be stored and backed up during the research?

- **Primary working storage** will use cloud (Google Drive, Dropbox, OneDrive).
- **Daily backups:** automatic sync to a second location (cloud or external drive).
- **Encryption:** laptops and external drives must be encrypted (e.g., BitLocker, FileVault). Sensitive files (consent forms, personal IDs) stored encrypted and access-controlled..

How will you manage access and security?

Data encription and secure storage
Role-based folders (Enumerators, Analysts). Enumerators: upload data but cannot download full datasets.

- Field Supervisors: view data for their sites only.
- Data Manager: full access for cleaning and archiving.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

Cleaned, Anonymized Quantitative Datasets
Metadata and Documentation
Analysis Scripts and Code

What is the long-term preservation plan for the dataset?

- Cleaned, fully anonymized quantitative datasets (CSV or open formats)
- Anonymized qualitative transcripts (FGDs, key informant interviews)
- Derived datasets used for analysis (aggregated tables, coded themes)

Data Sharing

How will you share the data?

data will be freely accessible to anyone

Are any restrictions on data sharing required?

None

Responsibilities and Resources

Who will be responsible for data management?

Midzi Ndlovu

What resources will you require to deliver your plan?

Funding