

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Research Design

This study adopts a descriptive survey research design. This design is deemed suitable as it enables the researcher to obtain relevant data from a sample of respondents in Ilorin, Kwara State, to examine the impact of agricultural financing on food security. The approach supports the collection and analysis of data in a way that provides insight into the challenges and opportunities within the local agricultural financing system.

#### 3.2 Population of the Study

The population for this study comprises registered smallholder farmers, agricultural extension officers, and representatives of financial institutions involved in agricultural financing within Ilorin East and Ilorin South Local Government Areas of Kwara State. These groups were chosen because of their firsthand knowledge and involvement in agricultural financing and food production.

#### 3.3 Sample Size and Sampling Technique

A total of 150 respondents were selected using a stratified random sampling technique. The population was stratified into three categories—farmers, agricultural officers, and bank officials—and random samples were drawn from each group to ensure balanced representation. This method helped to capture diverse perspectives within the Ilorin agricultural ecosystem.

#### 3.4 Sources of Data

The study utilized both primary and secondary sources of data. Primary data were gathered directly from respondents in the field using structured questionnaires. Secondary data were sourced from published materials such as the Central Bank of Nigeria (CBN) reports, National Bureau of Statistics (NBS) publications, relevant journals, and past academic research related to agricultural financing and food security in Nigeria.

#### 3.5 Research Instrument

The main instrument used for data collection was a structured questionnaire. The questionnaire included both open-ended and close-ended questions designed to elicit detailed responses on the availability, accessibility, and utilization of agricultural financing, and its influence on food security among farmers in Ilorin.

#### 3.6 Validity and Reliability of the Instrument

To ensure the instrument's validity, the questionnaire was reviewed by experts in agricultural economics and research methodology at a tertiary institution in Kwara State. A pilot study was conducted among 20 respondents in a neighboring community not included in the final sample. The reliability of the instrument was tested using Cronbach's alpha, and a coefficient score of 0.80 confirmed a high degree of reliability.

### 3.7 Method of Data Collection

The data collection was conducted through face-to-face distribution and retrieval of questionnaires. The researcher visited farms, government agricultural offices, and financial institutions within Ilorin to personally administer the questionnaires. This ensured clarity of responses and a higher return rate.

### 3.8 Method of Data Analysis

Data collected were analyzed using both descriptive and inferential statistics. Descriptive statistics such as frequency counts, percentages, and mean scores were used to summarize the data. Inferential statistics, specifically chi-square tests and simple regression analysis, were used to test the research hypotheses and assess the relationship between agricultural financing and food security in Ilorin, Kwara State.