

## **APPENDIX A: QUESTIONNAIRE AND INTERVIEW GUIDE**

### **Assessment of the Impacts of Urban Expansion on Agricultural Land in Rubavu District, Western Province of Rwanda**

#### **Study Introduction and Consent**

You are invited to participate in a research study conducted by Kanamugire Boniface. The purpose of this study is to examine how urban expansion in Rubavu District is affecting agricultural land and the livelihoods of farming households.

Participation is voluntary. If you agree to participate, you will complete a short questionnaire (approximately 8–10 minutes). The information collected will be used strictly for academic purposes. No names or personally identifiable information will be published.

You may skip any question or withdraw at any time without any consequence.

For questions regarding this study, you may contact: **0788218098**

#### **Section A: Consent and Eligibility**

1. Do you agree to participate in this study voluntarily?  
☐ Yes ☐ No
2. Are you 18 years or older?  
☐ Yes ☐ No
3. Do you currently live or farm in Rubavu District?  
☐ Yes ☐ No

#### **Section B: Socio-Demographic Information**

1. Gender: ☐ Male ☐ Female ☐ Prefer not to say
2. Age: \_\_\_\_\_ years
3. Household size: \_\_\_\_\_ members
4. Education level:  
☐ No formal education  
☐ Primary  
☐ Secondary  
☐ Vocational/Technical  
☐ University
5. Primary livelihood activity:  
☐ Farming

- ☐ Wage employment
- ☐ Business/Trade
- ☐ Other (specify): \_\_\_\_\_

### **Section C: Land Ownership and Use**

1. Type of land tenure:
  - ☐ Owner
  - ☐ Leaseholder
  - ☐ Sharecropper
  - ☐ Other: \_\_\_\_\_
2. Total landholding size: \_\_\_\_\_ hectares
3. Number of land plots: \_\_\_\_\_
4. Main crops/livestock produced: \_\_\_\_\_
5. Have you lost agricultural land due to urban expansion in the past 10–20 years?
  - ☐ Yes ☐ No

### **Section D: Urban Expansion and Land Conversion**

1. If yes, how much land was converted? \_\_\_\_\_ hectares
2. Year(s) of land conversion: \_\_\_\_\_
3. Type of land conversion (multiple answers allowed):
  - ☐ Residential housing
  - ☐ Commercial buildings
  - ☐ Roads/infrastructure
  - ☐ Public facilities (schools, hospitals, etc.)
  - ☐ Other: \_\_\_\_\_
4. Did you receive compensation for the converted land?
  - ☐ Yes (adequate)
  - ☐ Yes (inadequate)
  - ☐ No

### **Section E: Agricultural and Livelihood Impacts**

1. Over the past years, your cultivable land has:
  - ☐ Increased

- ☐ Remained the same
  - ☐ Decreased
2. Crop yields over the past 5 years have:
- ☐ Increased
  - ☐ Remained stable
  - ☐ Decreased
3. Household income over the past 5 years has:
- ☐ Increased
  - ☐ Remained stable
  - ☐ Decreased
4. In the past 12 months, how often did your household experience food shortage?
- ☐ Never
  - ☐ Rarely
  - ☐ Sometimes
  - ☐ Often
5. What coping strategies do you use during food shortages? (multiple responses allowed)
- ☐ Reduce meal size/number of meals
  - ☐ Buy cheaper food
  - ☐ Borrow food or money
  - ☐ Sell assets
  - ☐ Other: \_\_\_\_\_

#### **Section F: Policy Awareness and Governance**

1. Are you aware of land use plans or zoning regulations in Rubavu District?
- ☐ Yes ☐ No
2. Were you consulted during land use planning or land-related decisions?
- ☐ Yes ☐ No
3. How fair was the compensation process for land conversion?  
(1 = Very unfair, 5 = Very fair)
- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
4. How much do you trust local institutions managing land issues?  
(1 = Very low trust, 5 = Very high trust)
- ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

### **Section G: Perceptions and Attitudes (Likert Scale)**

Please indicate your level of agreement:

(1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

- Urban expansion has reduced agricultural land in my area. ☐1 ☐2 ☐3 ☐4 ☐5
- Urban growth has improved household income opportunities. ☐1 ☐2 ☐3 ☐4 ☐5
- The benefits of urbanization outweigh its negative impacts on agriculture. ☐1 ☐2 ☐3 ☐4 ☐5
- Land use zoning and enforcement are effective in protecting farmland. ☐1 ☐2 ☐3 ☐4 ☐5
- Environmental impacts of urban expansion are serious. ☐1 ☐2 ☐3 ☐4 ☐5
- I intend to continue farming in the next 5 years. ☐1 ☐2 ☐3 ☐4 ☐5

### **Section H: Closing Questions**

1. Do you have any additional comments regarding urban expansion and agriculture in Rubavu District?
2. May we contact you for follow-up questions if necessary?  
☐ Yes ☐ No

**End of Questionnaire**

**Thank you for your participation.**