

Appendix

Annex I

Questionnaire

ASSESSING THE FACTORS INFLUENCING EUROPEAN UNION QUALITY STANDARDS OF GREEN BEANS IN KENYA

Dear Sir/Madam,

I would like to ask you to fill in the following questionnaire. I am David Fakayode, a student at the Czech University of Life Science Prague, Czech Republic, and I am conducting this study focusing on “*Assessing the factors influencing European Union quality standards of green beans in Kenya*”. All the data are collected anonymously. The filling would only take a few minutes. I would appreciate very much if you would fill in and help me to conduct this research. Thank You!

Identification

District

Date of the interview

Section A: Socio-economic Characteristics

| | |
|---|--|
| 1. What is your Gender? | Male <input type="checkbox"/> Female <input type="checkbox"/> |
| 2. What is your age (in years)? | |
| 3. What are your years of education? | |
| 4. What is your highest education level? | Nonformal <input type="checkbox"/> , Primary <input type="checkbox"/> , Secondary <input type="checkbox"/> , NCE/Diploma <input type="checkbox"/> , Graduate <input type="checkbox"/> , Postgraduate <input type="checkbox"/> |
| 5. What is your marital status? | Single <input type="checkbox"/> , Married <input type="checkbox"/> , Separated <input type="checkbox"/> , Divorced <input type="checkbox"/> , Widowed <input type="checkbox"/> |
| 6. What is your household size (in persons)? | |
| 7. What are your years of farming experience? | |
| 8. Do you have access to extension services? | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 9. If yes, how frequent in a year (in number)? | |
| 10. Are you a farmers' group member? | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 11. If yes, which type of group? (Multiple choice is allowed) | Producer <input type="checkbox"/> , Processors <input type="checkbox"/> , Marketing <input type="checkbox"/> , Multipurpose <input type="checkbox"/> , Others..... |
| 12. What type of information/services received from the group (multiple choice is allowed)? | Weather <input type="checkbox"/> , Climate change adaptation <input type="checkbox"/> Crop related <input type="checkbox"/> , Certification <input type="checkbox"/> , Market (including price) <input type="checkbox"/> , Others (specify)..... |
| 13. Do you own a land? | Yes <input type="checkbox"/> No <input type="checkbox"/> |

| | |
|---|---|
| 14. If yes, what type of land ownership? | Customary <input type="checkbox"/> Statutory <input type="checkbox"/> |
| 15. And what is the size of land owned (ha)? | |
| 16. What size of land is under cultivation (ha)? | |
| 17. What are the species of green beans cultivated? | <p>Fresh Beans</p> <p>Belle Campo <input type="checkbox"/>, Vanilla <input type="checkbox"/>, Samantha <input type="checkbox"/>, Star <input type="checkbox"/>, Serengeti <input type="checkbox"/>, Boston <input type="checkbox"/>, Soria <input type="checkbox"/>, and Lomami <input type="checkbox"/>, Others (specify).....</p> <p>Canned Beans</p> <p>Goal <input type="checkbox"/>, Source <input type="checkbox"/>, Catarina <input type="checkbox"/>, Caledonia <input type="checkbox"/>, and Sagana <input type="checkbox"/> Others (specify).....</p> |
| 18. Do you have access to credit? | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 19. If yes, which type of credit? | Formal <input type="checkbox"/> Informal <input type="checkbox"/> |
| 20. Do you have an off-farm occupation? | Yes <input type="checkbox"/> No <input type="checkbox"/> |
| 21. If yes, what is your major off-farm? | |
| 22. What is your distance to main market (km) | |
| 23. What is your average income (Ksh/Month) | |

Section B: Economic Factors influencing Quality Standards

| | | | | | |
|---|---|-----------------------------|------------------|--------------|-----------------------|
| 24. Are you aware about EU grades and standards on green beans? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | | |
| 25. Are you familiar about EU laws on green beans? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | | |
| 26. Do you possess any green beans quality certification? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | | |
| 27. If yes, for how long? (in years) | | | | | |
| 28. Do you control price? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | | |
| 29. Do you grow green beans under contract with an export company? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | | |
| 30. If yes, which exporter(s) did you produce for between 1st Jan 2023 and 31st Dec 2023? (Tick all that apply) | Homegrown <input type="checkbox"/> Vegpro <input type="checkbox"/> Woni <input type="checkbox"/> Sacco Fresh <input type="checkbox"/> KHE <input type="checkbox"/> Sunripe <input type="checkbox"/> East Africa Growers <input type="checkbox"/> Greenlands <input type="checkbox"/> Other (specify)_____ | | | | |
| A. What is your perception on the following economic events helping you meet the EU standards. | | | | | |
| Event | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree |
| 31. I believe access to loan/credit will help me meet the EU standards | | | | | |
| 32. I believe access to seeds will help me meet the EU standards | | | | | |
| 33. I believe access to farm machinery will help me meet EU standards | | | | | |
| 34. I believe access to pesticides will assist me in meeting EU standards | | | | | |
| 35. I believe access to market will aid me in meeting EU standards | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| 36. I believe market price will help me in meeting EU standards | | | | | |
| 37. I believe access to fertilizers will help me in meeting EU standards | | | | | |
| 38. I believe access to land is vital for me meeting the EU standards? | | | | | |
| 39. I believe access to labor will help you meet the EU standards? | | | | | |

40. Please indicate below the quantity of each grade of green beans you sold and the price you received for each grade during the last crop season.

| Extra fine | | Fine beans | | Bobby beans | |
|------------|-----------------|------------|-----------------|-------------|-----------------|
| Boxes sold | Price (Ksh/box) | Boxes sold | Price (Ksh/box) | Boxes sold | Price (Ksh/box) |
| | | | | | |

Section C: Social Factors influencing Quality Standards

| | | | | | |
|--|--|----------|-----------|----------|-----------|
| 41. What is the source of your quality standard information? (Multiple choice is allowed) | Government extension agent <input type="checkbox"/> , Environmental NGOs <input type="checkbox"/> , Farmers groups <input type="checkbox"/> , Research institution/University <input type="checkbox"/> , Farmers friends <input type="checkbox"/> , Others(specify)..... | | | | |
| 42. What are your three main reasons for choosing to produce under contract? Please rank. | 1=Assured market for my green beans---- 2=Easier access to current information---- 3=Higher prices----- 4=Easier access to new pesticides----- 5= Easier access to cash credit--- 6=Easier access to quality seed--- 7=Stable prices----- 8=Other (specify)---- | | | | |
| Consider the following social events, what is your perception about them? | | | | | |
| Event | SD | D | UD | A | SA |
| 43. I believe access to information helps me to meet the EU standards | | | | | |
| 44. I believe possession of certification makes it easy to meet the EU standards | | | | | |
| 45. I believe farming experience helps in meeting EU standards | | | | | |
| 46. I believe assistance from friends during farm season helps in meeting the EU standards | | | | | |
| 47. I believe access to extension services assist in meeting the EU standards | | | | | |
| 48. I believe group membership belonging helps in meeting the EU standards | | | | | |
| 49. I believe trainings are essential in meeting EU standards | | | | | |

SD= Strongly disagree, D=Disagree, UD=Undecided, A=Agree and SA=Strongly agree

| |
|---|
| How frequent are the following events during farming season |
|---|

| Event | Never | Rarely | Sometimes | Often | Always |
|---|-------|--------|-----------|-------|--------|
| 50. Farming information (price fluctuation) | | | | | |
| 51. Capacity training | | | | | |
| 52. Visit of extension agents | | | | | |
| 53. Assistance from friends | | | | | |
| 54. EU quality control | | | | | |
| 55. Adaptive Farming methods | | | | | |

Section D: Environmental Factors influencing Quality Standards of Green Beans

| | | | | | |
|--|---|------------------------------|-----------------------------|-------|----------------|
| 56. Are you aware about climate change? | | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | |
| 57. Do you irrigate your green beans? | | Yes <input type="checkbox"/> | No <input type="checkbox"/> | | |
| 58. What is the source of your climate change information? (Multiple choice is allowed) | Government extension agent <input type="checkbox"/> , Environmental NGOs <input type="checkbox"/> , Farmers cooperative <input type="checkbox"/> , Research institution/University <input type="checkbox"/> , Farmers friends <input type="checkbox"/> , Others(specify)..... | | | | |
| How frequent do you get climate change information from the following? (Multiple choice allowed) | | | | | |
| Channel | Never | Rarely | Sometimes | Often | Always |
| 59. Radio <input type="checkbox"/> | | | | | |
| 60. Television <input type="checkbox"/> | | | | | |
| 61. Newspaper <input type="checkbox"/> | | | | | |
| 62. Farmers group/coop. <input type="checkbox"/> | | | | | |
| 63. Internet <input type="checkbox"/> | | | | | |
| 64. Farmers colleagues <input type="checkbox"/> | | | | | |
| 65. Govt extension agent <input type="checkbox"/> | | | | | |
| 66. NGOs <input type="checkbox"/> | | | | | |
| Consider the following environmental events, what is your perception about them? | | | | | |
| Event | Strongly Disagree | Disagree | Undecided | Agree | Strongly Agree |
| 67. I believe there is adequate rainfall during planting season | | | | | |
| 68. I perceive there is an increase in the frequency of drought | | | | | |
| 69. I believe diseases can impact the quality of green beans | | | | | |
| 70. I feel temperature has increased in recent times | | | | | |
| 71. I believe recommended pesticides are relatively expensive | | | | | |
| 72. I believe there is decrease in rainfall duration (days) | | | | | |
| 73. I believe there is an increase in pest outbreak | | | | | |

Annex II

Questionnaire for key informants

The questionnaire typically consists of structured questions which allow respondents to share their thoughts and experiences in detail. The structure is highlighted below. However, insights were not limited to the following:

Economic Issues

1. Can you describe briefly the economic challenges faced during the production of green beans
2. How easy is it to acquire loans from formal institutions
3. What are the constraints to land acquisition
4. Are there government incentives to farmers in terms of improved seeds, machinery, subsidized herbicides, fertilizer and pesticides?

Social Issues

1. Kindly describe the model of cooperative or farmer groups (number composition, requirement for entry and election of executives)
2. Do farmers readily assist themselves on their farms or they employ paid labor
3. What is the dynamic of relationship between farmers and European Union
 - a) Do farmers give feedback on challenges or the EU simply expects the standards to be met
 - b) If they do communicate, can you list a few of the channels of dialogue
4. Can you enumerate the steps involved in getting certification

Environmental Issues

1. What are the challenges faced in terms of climate and weather conditions
2. What do you know about Maximum Residue Limit (MRL)
3. Are there money-friendly alternatives to the recommended pesticides stipulated by the European Union?
4. What are the mitigating mechanisms currently employed to the environmental constraints faced by farmers?

Annex III

