Annex 1: Survey tools for milk producers, intermediaries, retailers and consumers

Survey questionnaire for milk producers

Introductions (names)

- 1. Participant identifier: [ward: interviewer initials: respondent type: number]
- 2. Age [closed. Options: 15-24; 25-34; 35-44; 45-54; 55-64; 64 and above]
- 3. Gender: [Closed. Options: male; female; unspecified].
- 4. Farm size: number of dairy cows and litres of milk produced each year.
- 5. Location of operation [Options: list all districts in Arusha]

Understanding your business

- 1. How long have you been operating for? [Closed options; less than a year; 1-3 years; 4-6 years; 7-9 years; more than 10 years]
- 2. How important is your business to your livelihood/supporting the household, as a % of livelihood income? (Closed. Options: 100-76% of household income; 76-50% of household income. 49-25% of household income; 24-1% of household income).
- 3. Who do you sell your milk to? [closed. Options: neighbour/direct to consumer, cooperative, processor, middleman, retailer/vendor (what type?); approximate %s of each, other...please specify]
- 4. What % of milk do you sell into the raw milk market (as opposed to pasteurised/formal market)?[Closed. Options 0; 1-10; 11-20; 21-30; 31-40; 41-50; 51-60; 61-70; 71-80; 81-90; 91-100. Don't know/not sure].
- 5. Have you sold more or less milk in recent years? [Closed. Options: more; less; stayed the same]
- 6. Why have you sold more or less raw milk in recent years? [Open-ended. Possible prompts: changes in consumer demand; changes in regulation; changes in my business which has forced this decision; improved profitability of one over the other etc].
- 7. Do you carry out any other business activities related to milk, for example transporting milk, or retailing it? [closed. no; yes. If yes, which roles? Options: producing; transporting/distributing].
- 8. How many litres do you produce each day? (choose a number)
- 9. How much do you sell your milk for (TSH per litre)? (choose a number, in TSH).

Understanding the business environment in which you operate

- 1. Would you say it is harder or easier to operate as a producer now than it has been in the past? (comparing the last 1-2 years with the time before that).
- 2. What changes have happened and why? (political, economic etc). [Probe for more information on the nature of these changes who, how, why, when].

- 3. What are the most difficult things/biggest challenges you face in running your farm? [open. Production challenges, competition from other farms, maintaining quality, access to technology, access to capital etc etc].
- 4. Have these changed at all in recent years? If so, which ones and how? [increased, decreased]
- 5. How might the challenges you face in running your farm best be overcome?
- 6. Which stakeholders do you require more support from and in what capacity?

Buyer relationships and their demands

- 7. What is your preferred type of buyer? [closed. Options: neighbour/direct to consumer, cooperative, processor, middleman, retailer/vendor (what type?); approximate %s of each]
- 8. What are the advantages of selling to this type of buyer? [open. Possible prompts: higher prices, convenience they come to the farm, timely payments, stability/reliability, cash payments, flexible demands, lower standards etc]
- 9. What kind of agreements do you have in place with your buyers? [close-ended. Options: verbal; written; none at all].
- 10. How regularly do you change buyer? [closed. Options: very regularly; sometimes; not often, never].
- 11. What do you and your suppliers agree on before a sale? [Closed. Options: tick all those that apply: price; volumes; timing; quality; payment terms etc?]
- 12. What prices do your buyers on average pay you for a litre of raw milk? How does this vary by season?
- 13. What has the general trend been regarding prices paid for your milk in recent years? [upward/downward/remaining stable]?
- 14. What are buyers looking for when they buy milk from you? [open: possible prompts: quality, safety, packaging etc?]
- 15. Why do your buyers shop from you and not others? [open. Possible prompts: taste of the milk/quality of the milk; affordable price; convenient location; other services etc]
- 16. Is it difficult for you to get what your buyers want? [closed. Options: yes/no].
- 17. If yes, what difficulties do you face? [possible prompts: there is not enough milk, it is expensive, the price is too high].
- 18. What would make it easier for you to get what buyers want? [open response, for later coding].
- 19. Who could help you solve these problems [open ended: prompts include: government, private sector etc]?

Health and safety

 What does safe milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour. Good thickness/consistency (by sight); Good thickness/consistency (other testing)].

- 21. What does high quality milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour. Good thickness/consistency (by sight); Good thickness/consistency (other testing)].
- 22. What do you do to ensure the milk you sell is of high quality and is safe and nutritious? [Open ended. Prompts include: treating cattle effectively/ensuring there are healthy; washing hands; keeping milking areas clean; cleaning containers regularly; using special containers; not mixing morning and evening milk; keeping milk cold etc].
- 23. How do you conserve quality before it is sold? [open. Possible prompts: (try and list in order of regulatory of use): electrical refrigeration; other methods of cooling (e.g. in water); boiling; quick sale, other...please note].
- 24. Do you measure safety and quality of milk before selling to others, if so, how?
- 25. Do your buyers measure safety and quality of milk before buying from you, if so, how?
- 26. What are the difficulties in maintaining safety and quality of milk before sale to buyers? [open response, for later coding].
- 27. What % of your milk is spoiled each week? [closed. Options: 0%. 1-10%; 11-20% 21-30%; 31-40%; 41-50%; 51-60%; 61-70%; 71-80%; 81-90% 91-100%].
- 28. How would you best be able to improve safety and quality? [open, with as much detail as possible. Possible prompts: training; more finances for investment in equipment (e.g. testing, containers etc...list equipment); more finances for investment in premises; other...please note.]
- 29. Who could help you improve on health and safety of milk? [open ended: prompts include: government, private sector etc]?
- 30. What challenges do middlemen/vendors face in maintain quality and safety of milk?
- 31. What could be done to improve on health and safety of milk further down the supply chain?

Training and certification

- 32. Have you ever sold milk to middlemen or vendors who have participated in a training and certification scheme that involved training on the safe handling of milk, maintaining milk quality and other business skills?
- 33. If yes, what was your experience of selling to this middlemen/vendor? Did they make any special requests from you as a buyer? Did they have any different demands from other buyers?
- 34. What were the advantages and disadvantages of selling to this buyer?

Would you be able to put us in touch with any other milk producers in your area who might be available for an interview? If so, please take contact details.

Survey questionnaire for middlemen

Introductions (names)

1. Participant identifier: [ward: interviewer initials: respondent type: number]

- 2. Age [closed. Options: 15-24; 25-34; 35-44; 45-54; 55-64; 64 and above]
- 3. Gender: [Closed. Options: male; female; unspecified].
- 4. Middlemen size: very small-scale (motorbike), medium-sized (larger vehicles, more employees); large-scale (larger or more vehicles e.g. lorries, more employees), (other please explain)
- 5. What volumes of milk do they trade in on average each year [or month, if easier?]. [litres]
- 6. Location of operation [Options: list all districts in Arusha, select multiple choose]

Understanding your businesses

- 7. How long have you been operating for? [Closed options; less than a year; 1-3 years; 4-6 years; 7-9 years; more than 10 years]
- 8. How important is your business to your livelihood/supporting the household, as a % of livelihood income? (Closed. Options: 100-76% of household income; 76-50% of household income. 49-25% of household income; 24-1% of household income).
- 9. What % of the milk you sell to vendors is raw? [Closed. Options 0; 1-10; 11-20; 21-30; 31-40; 41-50; 51-60; 61-70; 71-80; 81-90; 91-100. Don't know/not sure].
- 10. Have you sold more or less raw milk in recent years? [Closed. Options: more; less; stayed the same]
- 11. Why have you sold more or less raw milk in recent years? [Open-ended. Possible prompts: changes in consumer demand; changes in regulation; changes in my business which has forced this decision; improved profitability of one over the other etc].
- 12. Do you carry out any other business activities related to milk, for example retailing or producing milk? [closed. no; yes. If yes, which roles? Options: producing; retailing?].

Understanding the business environment in which you operate

- 13. Would you say it is harder or easier to operate as a milk middleman now than it has been in the past? (comparing the last 1-2 years with the time before that).
- 14. What changes have happened and why? (political, economic etc). [open. Probe for more information on the nature of these changes who, how, why, when].
- 15. What are the most difficult things/biggest challenges you face in running your business? [open. Possible prompts: 1) Cost of licenses (if so, which are the most expensive) 2) Meeting consumer demands. If so, which ones? 3) Time and complexity involved in licensing (if so which are particularly complex/time-consuming); 4) Time taken out from business for inspections; 5) Indirect cost of inspections (e.g. bribes); 6) Understanding what is required of me as a vendor in relation to health and safety standards/meeting health and safety standards; 7) Competition from other vendors; 8) Competition from formal sector. 9) other...please specify.
- 16. Have these changed at all in recent years? If so, which ones and how? [increased, decreased]

- 17. What is the government's attitude towards informal milk middlemen, such as yourselves? Is the attitude different depending on the government agency? (e.g. TBS versus TDB versus MoH). How would you describe the relationship between yourselves and government?
- 18. How does this attitude show itself? For example, are you harassed by government agencies/representatives, and if so, who, and what form does this harassment take? When and how often? What is the impact on your business? Are you forced to pay bribes? What happens if you do not pay a bribe?
- 19. Are there any other impacts (positive or negative) of these relationships with government agencies on your business? *E.g. how much you can sell, where you can sell, when you can sell?* How does this in turn affect your livelihood and your household? Does it affect consumers in anyway?
- 20. What would need to change for this relationship to improve/the negative impacts to be reduced and the positive impacts to be enhanced?

Milk supply

- 21. Who do you buy milk from? (closed: options smallholder farmer, smallholder cooperative, other...please specify).
- 22. Why do you buy from them? [closed. Ranking exercise. please choose your top three in order of importance: convenience/location; cost; quality; volumes; personal relationships; other...please specify...].
- 23. What kind of agreements do you have in place with your suppliers? [close-ended. Options: verbal; written; none at all].
- 24. How regularly do you change supplier? [closed. Options: very regularly; sometimes; not often, never].
- 25. What do you and your suppliers agree on before a sale? [Closed. Options: tick all those that apply: price; volumes; timing; quality; payment terms etc?]
- 26. Are you always able to get as much milk as you need and/or of the right quality? [Closed. Options tick all that apply: Yes, to obtaining enough milk. Yes, to obtaining milk at the right quality. No to obtaining enough milk, no to obtaining milk at the right quality. Other? Please note. can you give more information?]

Milk demand/consumer preferences

- 27. What are vendors looking for when they buy milk? [open: possible prompts: quality, safety, packaging etc?]
- 28. Why do your vendors shop from you and not others? [open. Possible prompts: taste of the milk/quality of the milk; affordable price; convenient location; other services etc]
- 29. Is it difficult for you to get what vendors want? [closed. Options: yes/no].
- 30. If yes, what difficulties do you face? [possible prompts: there is not enough milk, it is expensive, the price is too high].
- 31. What would make it easier for you to get what vendors want? [open response, for later coding].

32. Who could help you solve these problems [open ended: prompts include: government, private sector etc]?

Health and safety

- 33. What does safe milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour. Good thickness/consistency (by sight); Good thickness/consistency (other testing)].
- 34. What does high quality milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour. Good thickness/consistency (by sight); Good thickness/consistency (other testing)].
- 35. How do you measure safety and quality when purchasing from others? [Closed. Options. in order of regularity of use: sight/smell; lactometer; other...please note]
- 36. What do you do to ensure the milk you sell is of high quality and is safe? [Open ended. Prompts include: washing hands; keeping premises clean; cleaning containers regularly; using special containers etc].
- 37. How do you conserve quality before it is sold? [open. Possible prompts: (try and list in order of regulatory of use): electrical refrigeration; other methods of cooling (e.g. in water); boiling; quick sale, other...please note].
- 38. What are the difficulties in maintaining safety and quality? [open response, for later coding].
- 39. What % of your milk is spoiled each week? [closed. Options: 0%. 1-10%; 11-20% 21-30%; 31-40%; 41-50%; 51-60%; 61-70%; 71-80%; 81-90% 91-100%].
- 40. How would you best be able to improve safety and quality? [open, with as much detail as possible. Possible prompts: training; more finances for investment in equipment (e.g. testing, containers etc...list equipment); more finances for investment in premises; other...please note.]
- 41. Who could help you improve on health and safety of milk? [open ended: prompts include: government, private sector etc]?

Business costs and licences

- 42. Do you have any licences [closed. Options: yes/no]].
- 43. If yes, which licences [open, list].
- 44. For each, in turn:
 - o How much did you pay for it?
 - What standards have to be met to be eligible for a licence? [just a brief summary]
- 45. Are there any licenses you do not have, but should have? [reassure this information is for us only, will not be attributed to them].
- 46. Why do you not have them? [Open. Prompts: too costly, too difficult to meet the requirements/standards; do not know how to get the licence; do not know where to get the licence; too far away...list all that are mentioned].
- 47. What are the consequences of not having them? [open. Possible prompts: having to pay bribes, having to be mobile to escape detection; confiscation of milk?).

Training and certification

48. Have you participated in any training or certification to improve the safety/quality of milk or expand your business? [options: yes; no. if no, skip to next section. If yes, continue]

- 49. When did you receive this training? [year]
- 50. Who provided this training? [options: government extension worker. Private provider. Another trader. Other...please note].
- 51. How much did you pay for this training? [open ended, specify amount in TSH]
- 52. How much time did it take? [options: open-ended, specify in units of days]
- 53. What positive impacts did the training have? [options: open possible prompts cleaner premises; improved handling of milk; milk quality; less harassment by authorities; customer loyalty; accounting/budgeting; value added skills]
- 54. In which areas did you expect it to have an impact but it did not? [options, open please specify].
- 55. Was it easy to implement what you learnt from the training? [closed. options: yes/no/somewhat].
- 56. If you faced difficulties, can you explain what these were and why they came about?
- 57. Did you face any challenges in attending? [options: open-ended, possible prompts bad timing, expensive, inconvenient location].
- 58. What improvements are needed to make the training more effective/less costly, more accessible/suitable etc? [options, open-ended. Possible prompts different location, cheaper, different time. And attribute values to those if possible].

Other training obtained/needed

- 59. Do you know anyone who has participated in the training, or have you heard about the training? If so, can you give more information on what you've heard/who participated etc]. [open].
- 60. Have you received any other training, and if so, in what areas? [options: yes; no]
- 61. With what impact? [options: open-ended]
- 62. Do you have the need for more training in regards to health and safety or any other business-related issues? [options: yes; no]
- 63. If so, can you give more detail on what aspects you require training on? [options: open-ended]

Can you recommend any producers we could interview as part of this research? Do you have any contact details for them?

Survey questionnaire for milk vendors

Introductions (names)

- 1. Participant identifier: [ward: interviewer initials: respondent type: number]
- 2. Age [closed. Options: 15-24; 25-34; 35-44; 45-54; 55-64; 64 and above]
- 3. Gender: [Closed. Options: male; female; unspecified].
- 4. Location of operation [Options: Districts in Arusha]

Understanding your business

- 5. How long have you been operating for? [Closed options; less than a year; 1-3 years; 4-6 years; 7-9 years; more than 10 years]
- 6. How important is your business to your livelihood/supporting the household, as a % of livelihood income? (Closed. Options: 100-76% of household income; 75-50% of household income. 49-25% of household income; 24-1% of household income).
- 7. What % of the milk you sell in a week is raw? [Closed. Options 0; 1-10; 11-20; 21-30; 31-40; 41-50; 51-60; 61-70; 71-80; 81-90; 91-100. Don't know/not sure].
- 8. Have you sold more or less raw milk in recent years? [Closed. Options: more; less; stayed the same; NA, being operating less than a year]
- 9. What do you think are the reasons for the selling of more or less raw milk in recent years? [Open-ended. Possible prompts: changes in consumer demand; changes in regulation; changes in my business which has forced this decision; improved profitability of one over the other etc].
- 10. Vendor type: [closed: Options: milk bar, mobile seller, , supermarket, other...please specify]
- 11. Do you sell any value added dairy products (such as yoghurt, mala etc)? [Closed. Options: yes; no]
- 12. If so, which products do you sell? [open]
- 13. Have the quantities of these value-added products sold/demanded by consumers increased or decreased in recent years? [Closed. Options: increased; decreased; stayed the same].
- 14. Do you carry out any other business activities related to milk, for example transporting milk secured from producers, or producing it? [closed. no; yes. If yes, which roles? Options: producing; transporting/distributing].

Profits and costs

- 15. What is the largest business cost you face? What is the second largest business cost you face? What is third largest business cost you face? What is the fourth largest business cost you face? [Closed. Options: 1) premises rent etc, 2) electricity/water etc, 3) obtaining milk, 4) equipment to store milk 5) equipment to clean milk, 6) equipment to handle milk, 7) equipment to test milk 8) labour costs (employing people), 9) transport costs fuel etc, 10) other...please note].
- 16. What are your major sources of revenue? [Closed. Options, 1) milk sales, 2) yoghurt sales, 3) mala sales; 4) other dairy products...please note... 4) other...please note which]
- 17. What are the three biggest challenges you face in running your business? [open. Possible prompts: 1) Cost of licenses (if so, which are the most expensive) 2) Meeting consumer demands. If so, which ones? 3) Time and complexity involved in licensing (if so which are particularly complex/time-consuming); 4) Time taken out from business for inspections; 5) Indirect cost of inspections (e.g. bribes); 6) Understanding what is required of me as a vendor in relation to health and safety standards/meeting health and safety standards; 7) Competition from other vendors; 8) Competition from formal sector; 9) lack of capital to invest in business; 10) spoiled milk; 10) other...please specify.
 - Can you explain a bit more about the nature of these challenges and your thoughts on why these challenges come about?

Relationship with government

- 18. Generally, what do you think is the government's attitude towards informal milk vendors, such as yourselves? Is the attitude different for different government agencies? (e.g. TBS versus MoH).
- 19. How does this attitude show itself? (For example, are you harassed by government agencies/representatives), and if so, who, and what form does this harassment take? When and how often? What is the impact on your business? Are you forced to pay bribes? What happens if you do not pay a bribe?
- 20. Are there any other impacts (positive or negative) of these relationships with government agencies on your business? (*E.g. how much you can sell, where you can sell, when you can sell?*) How does this in turn affect your livelihood and your household? Does it affect consumers in anyway?
- 21. What would need to change for this relationship to improve/the negative impacts to be reduced and the positive impacts to be enhanced?

Milk supply

- 22. Who do you typically buy milk from? (closed: options smallholder farmer, smallholder cooperative, middleman, other vendor, other...please specify).
- 23. Why do you buy from them (choose up to three)? [closed. Ranking exercise. please choose your top three in order of importance: convenience/location; cost; quality; volumes; personal relationships; other...please specify...].
- 24. What kind of prior agreements do you have in place with your suppliers? [close-ended. Options: verbal; written; none at all].
- 25. What do you and your suppliers agree on before a sale? [Closed. Options: tick all those that apply: price; volumes; timing; quality; payment terms; other etc?]
- 26. How regularly do you change suppliers? [closed. Options: very regularly; sometimes; not often, never].
- 27. If you change supplier, what are the main reasons for the change? [open].
- 28. Are you always able to get as much milk as you need? Yes, to obtaining enough milk

No to obtaining enough milk. How does supply vary across seasons/ months?

- 29. Are you always able to get milk at the right quality? [Closed. Options tick all that apply: Yes, to obtaining milk at the right quality, No to obtaining milk at the right quality. Other? Please note. can you give more information?]
 - If mention of quality issues, please give more details/information on what kinds of challenges you face in sourcing high quality milk.

Milk demand/consumer preferences

30. What are the two most important things consumers are looking for when they buy milk? [open: possible prompts: quality, safety, packaging, price etc?]

- 31. Why do your customers shop from you and not from others? [open. Possible prompts: taste of the milk/quality of the milk; affordable price (which currently is Tsh.____versus others____); convenient location; other services etc]
- 32. Is it difficult for you to provide your consumers with what they typically want? [closed. Options: yes/no].
- 33. If yes, what difficulties do you face in trying to satisfy your consumers? [possible prompts: there is not enough milk, it is expensive, the price is too high].
- 34. What would make it easier for you to get what consumers want? [open response, for later coding].
- 35. Who could help you solve these problems [open ended: prompts include: government, private sector etc]?

Health and safety

- 36. What does safe milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour (by sight) Good thickness/consistency (by sight); Good thickness/consistency; from a trusted vendor; milk that has been certified; milk that has been tested; other, please specify]
- 37. What does high quality milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour (by sight) Good thickness/consistency (by sight); Good thickness/consistency; from a trusted vendor; milk that has been certified; milk that has been tested; other, please specify]
- 38. How do you typically measure safety and quality when sourcing milk from your suppliers? [Closed. can identify up to three options. Options. sight/smell; lactometer; other...please specify]
- 39. What do you do to ensure the milk you sell is of high quality and is safe? [Open ended. Prompts include: washing hands; keeping premises clean; cleaning containers regularly; using special containers etc].
- 40. How do you typically conserve quality before the milk is sold? [closed. Choose up to three options. Possible prompts: (try and list in order of frequency of use): electrical refrigeration; other methods of cooling (e.g. in water); boiling; quick sale, other...please note].
- 41. What difficulties you face in maintaining safety and quality? [open response, for later coding].
- 42. What % of your milk is spoiled each week? [closed. Options: 0%. 1-10%; 11-20% 21-30%; 31-40%; 41-50%; 51-60%; 61-70%; 71-80%; 81-90% 91-100%].
- 43. How would you best be able to improve milk safety and quality? [closed, Possible prompts: training; more finances for investment in equipment (e.g. testing, containers etc...list equipment); more finances for investment in premises; other...please note.]
- 44. Who could help you improve on health and safety? [close ended: prompts include: government, private sector etc. can identify up to 3. Specify who in other box]?

Business costs and licences

- 45. Do you have a local government business permit? [yes/no].
- 46. If yes, how much did you pay for the permit per year?
- 47. What standards did you have to meet to be issued with the permit, if any?
- 48. Are you registered with TDB?

- 49. If yes, how much did you pay for registration per year?
- 50. What standards did you have to meet for registration?
- 51. Do you have a valid medical clearance certificate?
- 52. If yes how much did you pay for the medical clearance certificate?
- 53. What standards did you have to meet for the certificate?
- 54. Are there any licenses you do not have, but should have? [reassure this information is for us only, will not be attributed to them]. If so, which licences are there?
- 55. Why do you not have them? [Open. Prompts: too costly, too difficult to meet the requirements/standards; do not know how to get the licence; do not know where to get the licence; too far away...list all that are mentioned].
- 56. What are the consequences of not having them? [closed. Possible prompts: having to pay bribes, having to be mobile to escape detection; confiscation of milk?).

Training and certification

- 57. Have you participated in any training or certification to improve the safety/quality of milk or expand your business? [options: yes; no. if no, skip to next section. If yes, continue]
- 58. When did you receive this training? [year]
- 59. Who provided this training? [options: government extension worker. Private provider. Another trader. NGO Other...please note].
- 60. How much did you pay for this training? [open ended, specify amount in TSH]
- 61. How much time did it take overall? [options: open-ended, specify in units of days]
- 62. What positive impacts did the training have for you/ your business? [options: closed options cleaner premises; improved handling of milk; milk quality; less harassment by authorities; customer loyalty; accounting/budgeting; value added skills, other...]]
- 63. In which areas did you expect it to have an impact but it did not? [options, open please specify].
- 64. Was it easy to implement what you learnt from the training? [closed. options: yes/no/somewhat].
- 65. If you faced difficulties, can you explain what these were and why they came about?
- 66. Did you face any challenges in attending? Yes/no.
- 67. If yes, what are these challenges? [options: closed: bad timing, expensive, inconvenient location].
- 68. In your own view, what improvements are needed to make the training more effective/less costly, more accessible/suitable etc? [options, closed, Possible prompts different location, cheaper, different time, other, no changes required].

Other training obtained/needed

- 69. Do you know anyone else who has participated in training on safe milk handling, or have you heard about the training? If so, can you give more information on what you've heard/who participated etc]. [open].
- 70. Have you received any other training? [options: yes; no] If so, in what areas?
- 71. With what impact? [options: open-ended]

- 72. Do you have the need for more training in regard to health and safety or any other business-related issues? [options: yes; no]
- 73. If so, can you give more detail on what aspects you require training on? [options: open-ended]

Can you recommend any consumers, middlemen or producers we could interview as part of this research? Do you have any contact details for them?

Survey questionnaire for milk consumers

Introductions

- 1. Participant identifier: [ward: enumerator initials: respondent type: number]
- 2. Do you buy and consume raw milk, either for yourself or other people in your household? [closed. Yes/no, if no, end interview. If yes, proceed].
- 3. Do you buy milk from milk vendors, rather than direct from the farm? [if no, end interview]
- 4. Age [closed. Options: 15-24; 25-34; 35-44; 45-54; 55-64; 64 and above]
- 5. Gender: [Closed. Options: male; female; unspecified].
- 6. Home location: [Options: list all Districts in Arusha]

Names and understanding your habits

- 7. How many litres of pasteurised/packaged milk do you buy a week? [select number]
- 8. How many litres of raw milk do you buy a week? [select number].
- 9. If raw, is it boiled when you buy it? [closed. Options: yes; no].
- 10. If it is raw, do you boil the milk before consumption? [closed. Options: yes; no].
- 11. Do you prefer to buy raw or pasteurised? [closed. Options: raw; pasteurised]
- 12. Why do you prefer this type of milk? [do not prompt at first] [Choose four possible options out of the following: in order of priority: freshness; taste; fat content; nutrition value; price; packaging; safety; availability; convenience (of buying); nature of retail outlet/cleanliness, other...please specify etc].
- 13. Which factors are most important to you when choosing which milk to buy? Choose three possible options out of the following, in order of priority: freshness; taste; fat content; nutrition value; price; packaging; safety; availability; convenience (of buying); nature of retail outlet/cleanliness, other...please specify etc].
- 14. Which retail outlets do you typically buy milk from? [allow choice of two. Closed. Options: mobile seller; shops; small supermarkets; large supermarkets; other...please note].
- 15. Do you tend to shop from a small number of vendors (i.e. 1-3); or do you shop around? [closed: small number of vendors; shop around].
- 16. If you shop from a small number of vendors, why [do not prompt at first]? open. Possible prompts: from a small number: trust, few or no incidence of health problem; accessibility; convenience; gives credit, other...please specify.;
- 17. If you shop around, why? [do not prompt at first]? [for shop around: to find a better price, to make sure I can get enough milk, to get the best quality etc].

- 18. When choosing where to buy milk from, what is the thing you think about most? [open].
- 19. Are there any other things you think about when deciding where to buy milk from? [closed. Choose three possible options out of the following: in order of priority: cleanliness; price; health and safety certificates/licences; friendliness of staff; trust in the safety of the vendor's milk/absence of problems associated with that vendor's milk; provision of other services e.g. credit; convenience (distance); ability to buy multiple products; relationship with vendor; other...please specify]..
- 20. Is it ever difficult to get the milk you want? [closed. Options: yes; no].
 - o If yes, what kind of difficulties do you face? [closed. Options (tick all that apply): no milk available; milk expensive; milk of poor quality. Others...please note].
- 21. How much do you currently pay for a litre of raw milk? [open. Please specify, TSH, or NA].
- 22. How much do you currently pay for a litre of pasteurised milk? [open. Please specify, TSH or NA].

Attitude of government players towards sale and consumption of raw milk

- 23. How would you describe the government's attitude to the sale and consumption of raw milk?
- 24. How does this attitude impact you as a consumer, if at all?
- 25. What would need to change for this relationship to be improved or for the impacts on you as a customer to be made positive?

Importance of milk to household consumption

- 26. Approximately how much milk does your household consume per week? [open: litres]
- 27. Approximately how much money do you spend on milk a week? [open:TSH].
- 28. Which members of the household drink milk, in order of quantity? [closed. Options: parents/HH head; 18-12 year old children; 11-6 year olds; under 5s; other relatives].
- 29. How do you generally drink milk in the household? [Open. Possible prompts: in tea/chai; in cooking/food; raw/cold; other...etc].

Health and safety

- 30. What does safe milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour (by sight) Good thickness/consistency (by sight); Good thickness/consistency; from a trusted vendor; milk that has been certified; milk that has been tested; nothing added, other, please specify].
- 31. What does high quality milk mean to you? [open, possible prompts: freshness (taste). Freshness (smell) Normal colour (by sight) Good thickness/consistency (by sight); Good thickness/consistency; from a trusted vendor; milk that has been certified; milk that has been tested; nothing added, other, please specify]
- 32. How important is the safety of milk to you when choosing a vendor/retailer? [closed. Options: very important; quite important; neither important nor unimportant; quite unimportant; very unimportant].
 - o Why do you say this? (open).
- 33. How do you decide to if a vendor is selling safe milk or not? [open-ended. prompts if needed: I look for clean premises, I look for a clean person selling the stall, correct licences, certificates, white coat, prior experience/trust have bought from vendor for long while

- without problems, they are selling branded milk I recognise] etc. Explore each of these in more detail e.g. what would a clean premise look like? if found to be important or if unclear what they mean]
- 34. What challenges do you face in deciding whether a retailer/vendor sells safe milk or not? [do not prompt at first] [open...please specify].
- 35. Once you are at the vendor, what do you do to make sure the milk you buy is of high quality and is safe? [do not prompt at first. open. Possible prompts: I look at it; I smell it, I taste it; other... please specify]
- 36. Have you or members of your family ever been ill after drinking milk? [closed. option: yes; no]. if yes:
 - What kind of illness did you or your family member suffer from? [open. Possible prompts: diarrhoea, vomiting, headache...other (please specify)].
 - Were you able to link this milk to a particular vendor/retailer? [closed. Options: yes; no].
 - Did you change vendor as a result? [closed. Options yes/no. I went there less frequently but didn't change completely].
 - Did you change your practices as a result [e.g. boiling]?

Possible demand for training and certification via marketing

- 37. Have you ever noticed any milk retailers/vendors displaying certificates or licences on their premises? [yes/no].
- 38. If so, do you know what this certificate or licence was about/what is showed? [open]
- 39. Did it increase your trust in the retailer? [yes/no]
 - o If so, why? [open]
 - o Did it make you more likely to return to that particular retailer? [closed. Yes/no].
 - o Did it affect your willingness to pay extra for the milk? [closed. Yes/no].
- 40. Do you think you would pay more for milk from a vendor who had a certificate saying they know how to safely store and handle milk? Yes/no. If yes, what and why?
- 41. Would you shop at a vendor more often if they had a certificate saying they know how to safely store and handle milk?? [yes/no/, if yes, why?]
- 42. Are there any labels, brands or certificates shown on a product that you seek out when buying milk or other dairy products? [closed. Options: yes; no].
- 43. If yes, which ones, and why? [open. Please specify].
- 44. Are labels/brands/packaging important to you in making decisions about the safety of food products more generally? [closed. Options: very important; quite important; neither important nor unimportant; quite unimportant; very unimportant].