

Supplemental material S1: Interview

Identification: /____/

NumCode: First letter of the country (A for Algeria, M for Morocco, T for Tunisia and S for Spain)+number 01, 02, etc... for example: M01, M02...

1. Full name: /_____/

2. Location or address: /_____/ (GPS location: _____)

3. Province: /_____/

4. Country: /_____/

5. Phone number: /_____/ (5a. email: _____)

6. Activity in the camel breeding sector (check all the stakeholder's activities):

- | | | |
|---|---|---|
| <input type="checkbox"/> Breeder | <input type="checkbox"/> Feed supplier | <input type="checkbox"/> Veterinary products supplier |
| <input type="checkbox"/> Veterinarian | <input type="checkbox"/> Slaughterhouse | <input type="checkbox"/> Dairy processing |
| <input type="checkbox"/> Meat processing | <input type="checkbox"/> Butcher | <input type="checkbox"/> Trader |
| <input type="checkbox"/> Administration | <input type="checkbox"/> Researcher | <input type="checkbox"/> Selected (politic) |
| <input type="checkbox"/> Representative of an association | <input type="checkbox"/> Transporter | <input type="checkbox"/> Tourism agency |
| <input type="checkbox"/> Other activities (please state): _____ | | |

7. Name the organization or company to which you belong: /_____/

8. What is your special field (if any): /_____/

9. Estimated volume produced by the activity: _____ *(important to specify the unit :n° head sold/year ; n° litres of transformed milk ; etc... needs to be adapted according to the activity)*

10. Where do you practice your activity:

- | | | |
|--|--|--|
| <input type="checkbox"/> Douar/district | <input type="checkbox"/> Province | <input type="checkbox"/> Region/wilaya |
| <input type="checkbox"/> National | <input type="checkbox"/> International | |
| <input type="checkbox"/> Other. Precise (10a_zone_action_preciser) : _____ | | |

11. Do you practice any other activities?: ☐ Yes ☐ No

11a. If yes, which: /_____/

Stakeholder characteristics:

- A1_Level of education: _____ A2_Age : _____
- A3_How long have you exercised this activity? ____ (in years)
- A4_How many people do you employ? /____/
- A5_If you are a breeder, number of camels do you own? /____/
- A6.Length of transhumance: /____/ month ; A7.Distance : _____ km
- A8_Cultivated area ? /____/ ha ; A9_Main crops : _____ ;
- A10_Surface area of the main crop or number of trees : _____ (A11. Comment)

Current situation:

Place in the horizontal relationship with peers

12. Do you have relationships with your peers ? : ☐ Yes ☐ No

13. What kind of relationships (you may have more than one type of relationship at the same time) :

- ☐ Friendly/family
- ☐ Professional (exchange of information; product flows; etc.)
- ☐ Contractual (member of a same organization: association; cooperative; etc.))
- ☐ Other.: _____ (13a_ type of relationship)

14. Type of exchange:

14. Type of product	14a. Description of the exchange	14b. Check the box if the product is a gift? to peers	14c. Check the box if received from peers
Animal		<input type="checkbox"/>	<input type="checkbox"/>
Intermediate products (medicines, livestock feed)		<input type="checkbox"/>	<input type="checkbox"/>
Service (work)		<input type="checkbox"/>	<input type="checkbox"/>
Information (experience)		<input type="checkbox"/>	<input type="checkbox"/>
Knowledge (training).		<input type="checkbox"/>	<input type="checkbox"/>
Credit/loan		<input type="checkbox"/>	<input type="checkbox"/>
Other		<input type="checkbox"/>	<input type="checkbox"/>

15. How many peers in all does the interviewer communicate with? /____/

16. How often are you in contact with your peers?

- ☐ Every day ☐ At least once a week ☐ 1-3 times a month ☐ 2-3 times a year
- ☐ Other: _____ (16a_relation_freq_preciser)

17. Average distance between you and your peers: _____km

18. Score the degree of confidence you have in the relationship (from 1 to 10) ?

(1: no confidence / 10: very high confidence) /____/

19. What benefits do you get from this relationship (in terms of knowledge, competence) to improve your activity ?:

/_____/

20. Have you observed any changes in the relationships with your peers over the last 10 years? ☐ Yes ☐ No

21. If yes, what were the positive changes? /_____/

22. If yes, what were the negative changes? /_____/

23. What are your expectations (objectives) in collaborating with your peers? /_____/

24. What are the main obstacles to good cooperation with your peers? /_____/

25. What form of collaboration would you like? (Form of professional organization desired) /_____/

26. What are the main obstacles to establishing this professional organization? /_____/

Place of the stakeholder in the vertical relationships (other than the peers)

27. With which stakeholder of the camel sector do you have relationships? (check **the 3 main stakeholders**)

- ☐ Breeder ☐ Feed supplier ☐ Veterinary products supplier
- ☐ Veterinarian ☐ Slaughterhouse ☐ Dairy processing
- ☐ Meat processing ☐ Butcher ☐ Trader
- ☐ Administration ☐ Researcher ☐ Selected (politic)
- ☐ Representative of an association ☐ Transporter ☐ Tourism agency
- ☐ Others (6a_activite_preciser) : _____

Table S1. Detail the type of relationship you have with all the actors

(T11) Stakeholders	(T12) Type of relationship (1)	(T13) has given what? (2)	(T13s) has received what? (2)	(T14) Frequency of the contacts (3)	(T15) Degree of confidence in the relationship	(T16) Appreciation of the functioning of this link? (5)	(T17) Evolution of this relation over the last 10 years? (6)
Breeders							
Feed supplier							
Veterinary products							
Veterinarian							
Slaughterhouse							
Dairy processor							
Meat processor							
Butcher							
Merchant							
Administration							
Researcher							
Elected representatives (politician)							
Representative of association							
Transporter							
Tourism agency							

(1) **Type of relation:** 1. Friend/family; 2. Professional (exchange of information; product flows; etc.) 3. Contractual (member of the same organization: association; cooperative; other); 4. Others. Please add to the table.

(2) **Object of the relation:** 1. Animal flows; 2. Intermediate product flows (medicines, livestock feed) Which one? /_____/; 3. Service flows (work); 4. Information and experience: /_____/; 5. Knowledge (training): /_____/; 6. Credit/loan; 7. Other/_____/

(3) **Frequency of contacts:** 1. Every day 2. At least once a week; 3. 2-3 times/month ; 4. 2-3 times/year; 5. Other. Precise in the table

(4) **Degree of confidence (from 1 to 10):** 1: no confidence - 10: very high confidence

(5) **Appreciation of the functioning:** 1. Good ; 2. Medium ; 3. Bad ; 4. Other, add to the table.

(6) **Change in the relationship:** 1. Getting worse; 2. Stable; 3. Improving; 4. Other, add to the table

28. With which stakeholders do you think your relationships and functioning are the **most efficient**? :

- | | | |
|---|---|---|
| <input type="checkbox"/> Breeder | <input type="checkbox"/> Feed supplier | <input type="checkbox"/> Veterinary products supplier |
| <input type="checkbox"/> Vet | <input type="checkbox"/> Slaughterhouse | <input type="checkbox"/> Dairy processing |
| <input type="checkbox"/> Meat processor | <input type="checkbox"/> Butcher | <input type="checkbox"/> Trader |
| <input type="checkbox"/> Administration | <input type="checkbox"/> Researcher | <input type="checkbox"/> Elected representative |
| <input type="checkbox"/> Representative of an association | <input type="checkbox"/> Transporter | <input type="checkbox"/> Tourism agency |
| <input type="checkbox"/> Others: (6a_activite_preciser) : _____ | | |

29. What are the main reasons the relationship functions well?

/ _____ /

30. With which stakeholders do you think your relationships and functioning are the **least efficient**? :

- | | | |
|---|---|---|
| <input type="checkbox"/> Breeder | <input type="checkbox"/> Feed supplier | <input type="checkbox"/> Veterinary products supplier |
| <input type="checkbox"/> Veterinarian | <input type="checkbox"/> Slaughterhouse | <input type="checkbox"/> Dairy processing |
| <input type="checkbox"/> Meat processor | <input type="checkbox"/> Butcher | <input type="checkbox"/> Trader |
| <input type="checkbox"/> Administration | <input type="checkbox"/> Researcher | <input type="checkbox"/> Elected representative |
| <input type="checkbox"/> Representative of an association | <input type="checkbox"/> Transporter | <input type="checkbox"/> Tourism agency |
| <input type="checkbox"/> Others: (6a_activite_preciser) : _____ | | |

31. What are the main reasons for this bad functioning?

/ _____ /

EXPECTATIONS OF THE VALUE CHAIN

31. What do you consider to be the main obstacles to the development of a professional organization in the camel sector, at the scale of your area of operation ? (rank from the most important to the least important)

1. / _____ / (31a_Contrainte_1)
2. / _____ / (31b_Contrainte_2)
3. / _____ / (31c_Contrainte_3)

32. What would do you consider the best options to improve the functioning of the professional organization of the camel sector? (rank from the most important to the less important)

1. / _____ / (32a_Option_1)
2. / _____ / (32b_Option_2)
3. / _____ / (32c_Option_3)

33. What are the main obstacles to the development of the above options?

1. / _____ / (33a_Frein_1)
2. / _____ / (33b_Frein_2)
3. / _____ / (33c_Frein_3)

34. What role would you be willing to play to help improve the organization of the sector? / _____ /

35. Does your position with your peers or within the chain allow you to have a driving role in the future organization of the sector? / _____ /

36. Do you think that you can positively influence this organization from your network ? ☐ Yes ☐ No

37. If yes, how ? / _____ /

38. Do you have expectations in terms of transnational collaboration?

☐ Yes

☐ No

39. If yes what are they? _____