#### **Final Seminar**



## Small ruminant local breeds and sustainable regional development: the challenges in the Mediterranean area Experiences from the DOMESTIC project

Assessing the main characteristics of sheep and goat milk supply chains:

Results from the DoMEsTIc Project

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### Objectives

Define and evaluate the existing milk supply chains

Define the relevant farmers' profile and related factors

 Leverage points for designing and implementing appropriate development programs and policies







## Milk Marketing Channels

Which are the main milk marketing channels?

 What factors affect their channel choice decisions?

Identify constraints

Suggest improvement options







### Sampling

Cyprus

158 Farmers Corsica

30 Farmers

Greece, Ipiros

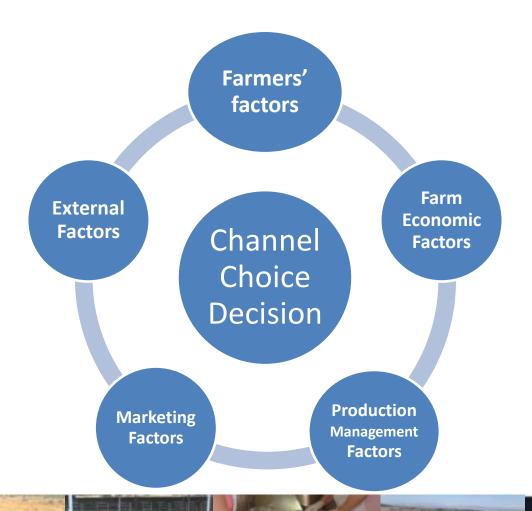
32 Farmers







## Framework of the study

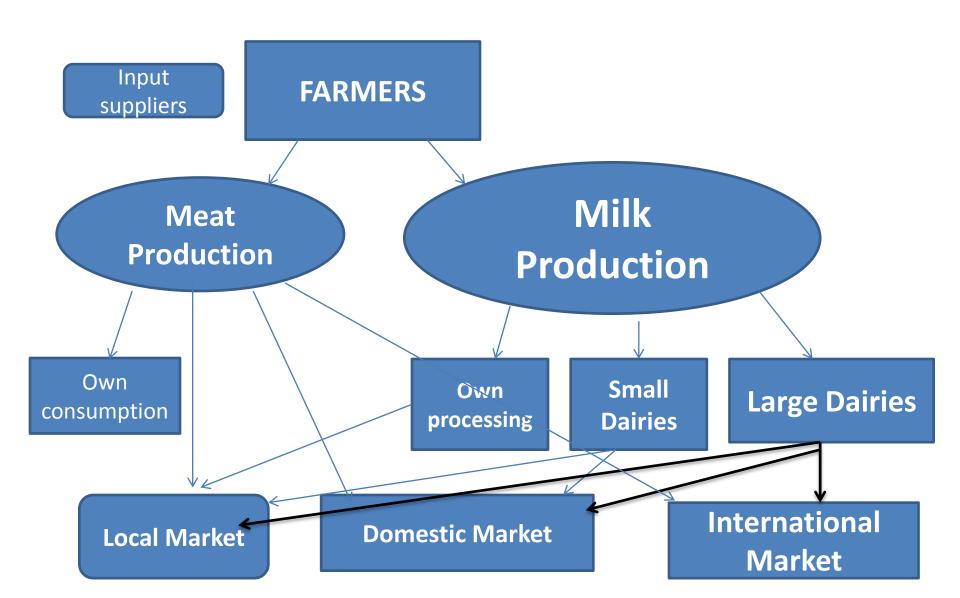


## Factors affecting distribution channels

- Production scale and size
- Price, Price satisfaction
- Farm house hold characteristics [age, education
- Behavioral aspects [trust, risk, experience]
- Market context [distance, purchase condition]
- Farm profit, Farm activities
- Contracts
- Mode of payment
- Long standing relationship with the buyer
- Market and transportation conditions
- Processing industry



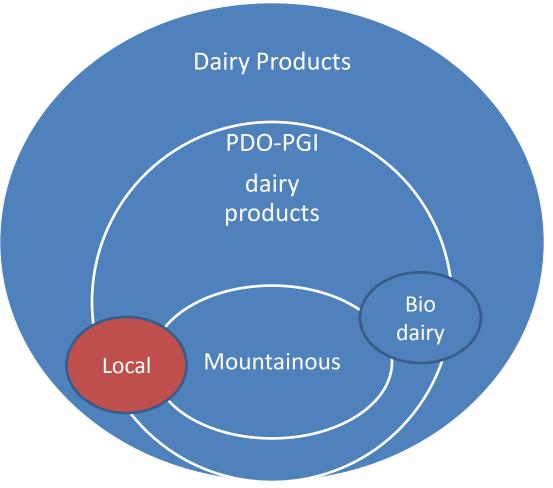
### Map of Small Ruminant Supply chain







### **Relevant Dairy Market**









#### **Product Differentiation**

#### Cyprus

- Haloumi cheece
- Anari cheese
- Yogurt
- Kefalotiri

#### France, Corsica

 PDO Fresh and cured cheese Brocciu

#### Greece, Epirus

- PDO Feta cheece
- PDO kefalografiera
- Kefalotiri
- Galotiri
- Yogurt



## Product/market matrix for cases

| Market   | Product                                                               |  |                                               |  |
|----------|-----------------------------------------------------------------------|--|-----------------------------------------------|--|
|          | Existing                                                              |  | New                                           |  |
| Existing | Market penetration Cyprus Corsica Epirus                              |  | Product Development Ipiros PDO dairy products |  |
|          |                                                                       |  |                                               |  |
| New      | Market Development                                                    |  | Diversification                               |  |
|          | Cyprus PDO Haloumi<br>France PDO Brocciu<br>Ipiros PDO dairy products |  | Local, Breed specific??                       |  |

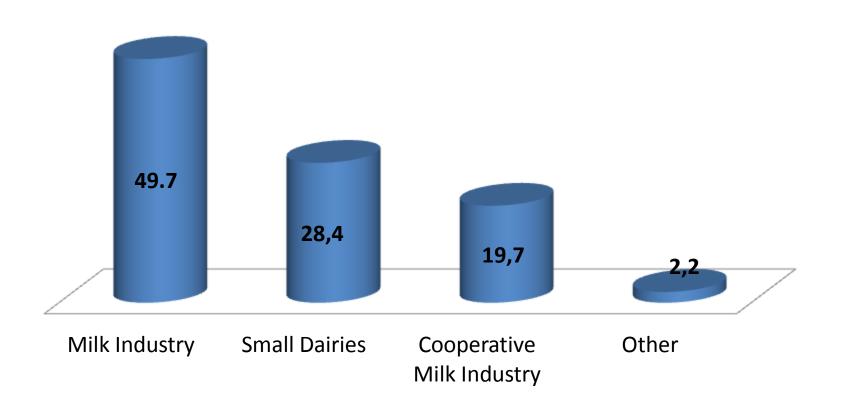




### Sheep and Goat Milk Channels



DoMEsTIc Project





## Sheep and Goat Milk Channels

| Sheep Goat<br>Milk Channels   | Percent | Cases | Average<br>Sheep Goat Milk<br>Quantity (kgr) |
|-------------------------------|---------|-------|----------------------------------------------|
| Milk Industry                 | 49.7%   | 91    | 83,571                                       |
| Small Dairies                 | 28.4%   | 52    | 50,832                                       |
| Cooperative Milk<br>Industry* | 19.7%   | 36    | 59,925                                       |
| Other                         | 2.2%    | 4     | 7,5                                          |







## Sheep Milk Channels

| Sheep Milk<br>Channels     | Percent | Cases | Mean Sheep<br>Milk Price<br>(€/kgr) | Mean Sheep<br>Milk Quantity<br>(kgr) |
|----------------------------|---------|-------|-------------------------------------|--------------------------------------|
| Milk Industry              | 60.8%   | 93    | 0.9723<br>(±0.1845)                 | 59,165                               |
| Small Dairies              | 17.0%   | 26    | 0.9496<br>(±0.1202)                 | 46,118                               |
| Cooperative Milk Industry* | 20.2%   | 31    | <b>0.9928</b> (±0.1107)             | 48,382                               |
| Other                      | 2.0%    | 3     | 0.9667<br>(±0.0577)                 | -                                    |
| Total                      | 100%    | 153   |                                     |                                      |







### **Goat Milk Channels**

| Goat Milk<br>Channels         | Percent | Cases | Average<br>Goat Milk<br>Price (€/kgr) | Average<br>Goat Milk<br>Quantity (kgr) |
|-------------------------------|---------|-------|---------------------------------------|----------------------------------------|
| Milk Industry                 | 68.3%   | 54    | 0.5635<br>(±0.06617)                  | 57,812                                 |
| Small Dairies                 | 17.7%   | 14    | <b>0.5736</b> (±0.04986)              | 42,690                                 |
| Cooperative<br>Milk Industry* | 11.3%   | 9     | 0.5378<br>(±0.04738)                  | 38,000                                 |
| Other                         | 2.7%    | 2     | -                                     | -                                      |
| Total                         | 100.0%  | 79    |                                       |                                        |







### Sheep Goat milk channels per country

| Country           | Private<br>Milk<br>Industry | Small<br>Dairies | Cooperative<br>Milk<br>Industry | Other           |
|-------------------|-----------------------------|------------------|---------------------------------|-----------------|
| Cyprus            | First<br>Choice             | Second<br>Choice | Minor<br>Choice                 | Minor<br>Choice |
| Greece,<br>Ipiros |                             | Second<br>Choice | *First<br>Choice                |                 |
| France            | First<br>Choice             |                  | Minor<br>Choice                 |                 |





## Specific Principles and channel choice decision





Written

Contracts

#### Price

- Good
- Bad

- Cash
- On credit

Payments







#### Contracts

Written

(32 cases)

Oral

Milk Industry

Small Dairies

Cooperative Milk Industry

Milk Industry

Cooperative Milk Industry







#### **Price Satisfaction**

#### Good

- Milk Industry (20 cases)
- Small Dairies (5 cases)

#### Average

- Milk Industry (29 cases)
- Small Dairies (7 cases)
- Cooperatives (14 cases)

#### Bad

- Milk Industry (36 cases)
- Small Dairies (13 cases)
- Cooperatives (6 cases)





### Mode of Payment

#### **CASH**

- Milk Industry (4 cases)
- Small Dairies (6 cases)
- Coop (13 cases)
- Other (2 cases)

#### On Credit

- Milk Industry (31 cases)
- Small Dairies (2 cases)
- Coop (2 cases)

#### Cheque

- Milk Industry (55 cases)
- Small Dairies (17 cases)
- Coop (5 cases)





#### Milk Industry

50.3 years

38.5% Technical Education

31.5% - Successor

36% - Training

86% Married

#### **Small Dairies**

**46.4** years

30.8% Technical Education

36% - Successor

30.8% - Training

77% Married

## Cooperative Milk Industry

51.8 years

12.9% - Technical Education\*

26.9% - Successor

**48.4%** - Training

93% - Married





#### Milk Industry

496 animals\*

65 tons sheep milk

35 ha own Land

250 ha land rented

261 animal/herder

#### **Small Dairies**

404 animals

48 tons sheep milk

14.9 ha own land

206 ha land rented

201 animal/herder

## Cooperative Milk Industry

398 animals

43 tons sheep milk

18.1 ha own land

159 ha land rented

257 animal/herder





#### Milk Industry

63% Breeding experience >20 years

80% Experience from Parents

60% Heritage

20% Other Activities

88% Full Time Work

#### **Small Dairies**

73% Breeding experience >20 years

92% Experience from Parents\*

50% Heritage

19% Other Activities

96% Full Time Work\*

## Cooperative Milk Industry

77% Breeding experience >20 years

97% Experience from Parents\*

68% Heritage\*

22% Other Activities

90% Full Time Work





#### Milk Industry

79% Technical Supervision

**8% Record Keeping\*** 

11.5% Computer use\*

86% Milking Machine

91% Agro-pastoralist Livestock Production system\*

#### **Small Dairies**

56% Technical Supervision\*

5.2% Record Keeping\*

0% Computer use\*

96% Milking Machine

73% Agro-pastoralist Livestock Production system

## Cooperative Milk Industry

78% Technical Supervision

1.4% Record Keeping\*

0% Computer use

Milking Machine

60% Agro-pastoralist Livestock Production system\*





#### Milk Industry

54% Know of outlet of products

11% Sell with certification

56% Share of Information with farmers

**56% Credit Access** 

#### **Small Dairies**

67% Know of outlet of products

5% Sell with certification

54% Share of Information with farmers

**56% Credit Access** 

## Cooperative Milk Industry

90% Know of the outlet of products

5% Sell with certification

90% Share of Information with farmers about quality aspects

43% Credit Access



## Constraints affecting the efficiency of livestock marketing

#### Milk Industry

Transportation cost\*

Poor market infrastructure\*

Low promotion\*

#### **Small Dairies**

Rational management of grazing lands \*

Low promotion\*

Poor market infrastructure\*

## Cooperative Milk Industry

Changes on CAP\*

Long distances to markets\*

Low infrastructure in slaughter houses\*





### Strategies

#### Milk Industry

Improve the infrastructures in mountainous areas

Support other activities (agro tourism, etc)

#### **Small Dairies**

Market Oriented policy

## Cooperative Milk Industry

Promotion of the extensive farming

Improve the infrastructures in mountainous areas







#### Thank You!







# Mediterranean biodiversity as a tool for the sustainable development of the small ruminant sector: from traditional knowledge to innovation













### Thank you!







### Cooperative Milk Industry

#### Oral

58 tons average milk quantity

0.92 average sheep milk price

20 ha own hand

44 ha rented land

392 mean number of animals

#### Written

45 tons average milk quantity

1.14 average sheep milk price

26 ha own land

75 ha rented land

418 mean number of animals





### Milk Industry

#### Oral

56 tons average milk quantity

0.88 average sheep milk price

28 ha own hand

289 ha rented land

452 mean number of animals

#### Written

66 tons average milk quantity

1.19 average sheep milk price

30 ha own land

97 ha rented land

634 mean number of animals