



PASTINNOVA

IV Webinar - Pastoralist women in the Mediterranean, a pathway to the future

ADAPTIVE STRATEGIES OF SILVOPASTORALIST WOMEN IN LEBANON

Dr. Pauline Aad

Professor

Notre Dame University-Louaize

Lebanon



The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation



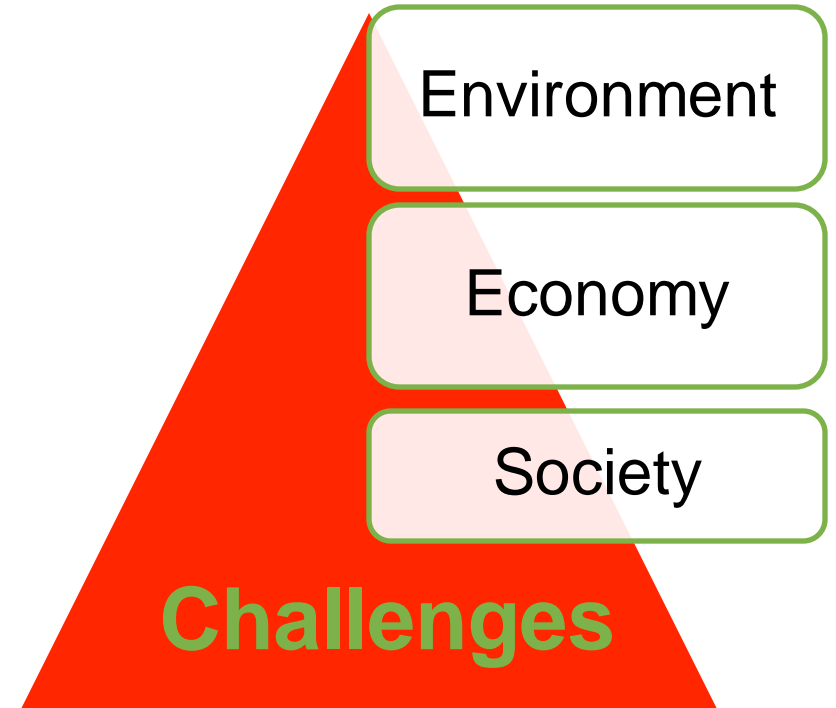
NOTRE DAME
UNIVERSITY
LOUAIZE
جامعة السيدة
اللويزة

Accredited by
NECHE
New England Commission
of Higher Education



Silvopastoralist women in Lebanon and across the world

- Crucial role in managing
 - agroforestry systems
 - Trees
 - Forage
 - Livestock
- Sustainability of Communities



- **Resilience and innovation**

Adaptive strategies of silvopastoralism

- Agroecological **Adaptations** and Climate Change **Resilience**
- Livelihood Diversification for **Resilience and Empowerment**
- Knowledge Transmission and Social Networks for **Support and Sustainable development**
- Policy Engagement and Advocacy for **Empowerment**

Agroecological and Climate Resilience

- **Adoption of small ruminant species**
 - Baladi goats and Awassi sheep
- **Integration of Fodder Trees:**
 - Shaded grazing and supplemental feed
 - Carob, oak, and mulberry trees
- **Drought Adaptation:**
 - drought-tolerant forage species
 - such as atriplex (saltbush) and prickly pear (Opuntia)
- **Soil and Water Conservation:**
 - Traditional stone terraces
 - Rainwater harvesting



Ecological and Biodiversity Adaptation

Climate Change Resilience

- **Transhumance**

- **Seasonal Mobility:** Adjusting grazing patterns based on rainfall and pasture availability.

- **Other strategies need to be adopted**

- **Fodder Banks and Feed Storage:** Stockpiling hay, silage, or tree fodder to buffer against dry periods.
- **Livestock Genetic Selection:** Breeding resilient local livestock breeds that can withstand heat stress and scarce resources.



Role of women in Livestock and Dairy

- **Animal Care and Herd Management**
 - feeding, disease monitoring, and ensuring livestock health, especially for small ruminants (sheep, goats).
- **Dairy Processing and Value-Added Products**
 - Pasteurization and transformation
- **Market Access and Cooperatives**
 - dairy, wool, and organic animal products
- **Disaster Preparedness**
 - climate-smart strategies like adjusting grazing patterns, using drought-tolerant fodder, and diversifying livestock species
- **Water Resource Management**
- **Resilient Farming Practices**
 - permaculture principles, organic farming, and agroecology into silvopastoral systems

Goat Milk Traditional Products



Milk



Labneh (a tangy cream cheese)



Kishk (Fermented mix of cracked wheat and yoghurt)



Yoghurt



Dariyeh and Aricheh
(Cottage cheese)



Shankleesh (Aged hard cheese)

Livelihood Diversification

- **Diversification of Livestock Products by Multi-Species Herding**
 - Mix of livestock herding : Baladi goats, Awassi sheep
 - Multitude of artisanal cheeses and fermented by-products
 - Cheese, labneh, chankleesh, keshek
- **Non-Timber Forest Products and Local by-product transformation**
 - Honey, Medicinal plants, Wild fruits
 - Carob Syrup, grape syrup, Pickles, other preserves
 - Zaatar
- **Market Access and Cooperatives**
 - for training, peer support and fair access to market
- **Eco-Friendly Farming**
 - Incorporate tourism
 - Promote handicrafts and artisanal products
 - Provide hospitality: Bed and breakfast, the farm experience, ...

Knowledge Transmission and Social Networks

- **Intergenerational Knowledge Sharing**
 - Multi-generational and social
 - Shared videos and instructions
 - Cookbooks (MountainHer initiative)
- **Cooperatives and Women's Groups**
 - Strengthen social support and resilience
 - Provide stronger resilience and access to market (Souk El Tayyeb)
- **Use of Digital Platforms**
 - social media, WhatsApp groups
 - online marketplaces to sell products
 - agricultural advice

Policy Engagement and Advocacy

Requires improvement
or Lacking in Lebanon

- **Agricultural extension services**
- **Water Management Innovations**
- **Community Land Rights Activism**
 - Advocating for women's access to land and grazing rights
- **Participation in Policy Dialogues**
 - Pastoral policies
 - Climate adaptation programs
 - Rural development initiatives.
- **Microfinance and Grants**
 - Sustainable farming practices
 - Renewable energy solutions
 - Value-added processing



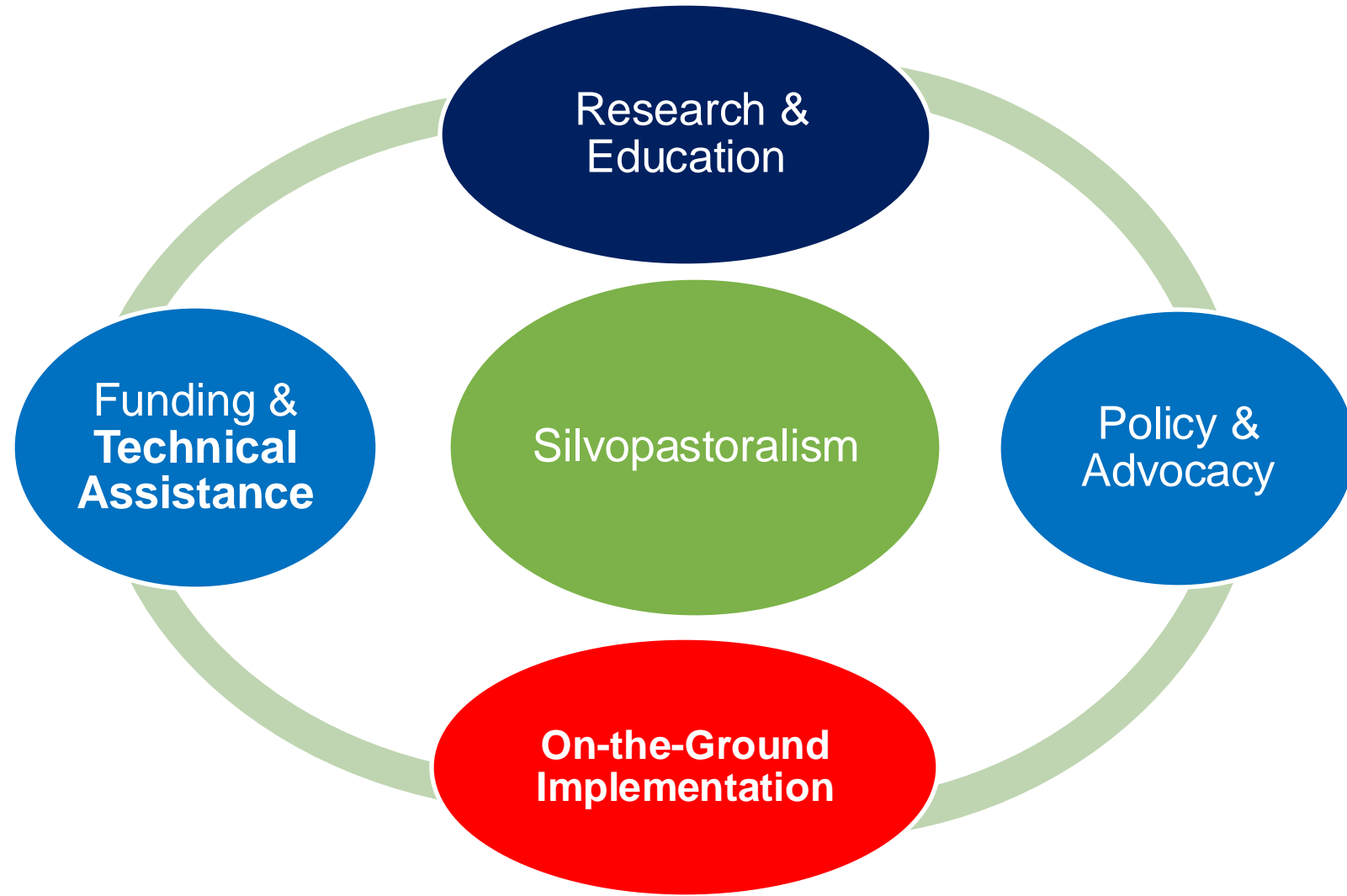
Key Players in Silvopastoralism in Lebanon

LARI, LRI, ICARDA,
universities (LU, NDU,
USJ, AUB)

International development
agencies (World Bank,
UNDP, USAID, EU)

MOA, FAO, NGOs

Farmers, cooperatives,
private sector, NGOs



Strategies to Empower Women in Silvopastoralism

- ✓ **Capacity Building Programs**
 - sustainable livestock management,
 - fodder production
 - agroforestry techniques
- ✓ **Financial Inclusion**
- ✓ **Policy Support and Land Rights Advocacy**
 - improve women's access to land and resources
- ✓ **Women-Led Cooperatives**
 - collective bargaining power and market access



Living Agro – PRIMA project



Women cooperatives, MountainHer – PRIMA project

Sustainable development and community empowerment

Lebanon Mountain Trail efforts - LMTA



•Environmental Education Programs:

- hands-on environmental education programs
- the Environmental Championship Program (ECP), to children from public and private schools.

•Trail Conservation Projects:

- Collaboration [International Labour Organization (ILO)]
- maintain and expand the Lebanon Mountain Trail (LMT), bringing economic benefits to local communities.

Silvopastorist' Woman Movement

- Growing movement toward integrating women into sustainable agricultural practices in Lebanon
- **MountainHER Project**
 - A PEER funded project for mountain communities across Lebanon, Algeria, Croatia, Italy, Morocco, and Tunisia
- **Rural Delights (Atayeb Al Rif)**
 - a cooperative initiative to achieve tangible economic gains for women in agribusiness.
 - **Biocoop**, funded by USAID, which provides vocational training for women in food processing, hygiene, health practices, and marketing
- **Heya Wines**
 - women-run winery , involves local women in all stages of wine production
 - challenges traditional gender roles and promote economic empowerment
- **Pastinnova Project**

Women's Cooperatives in Livestock Management

- **Mejdel El Koura Women's Cooperative**
 - dairy production including management and milking
 - produce traditional dairy products
 - grants aimed at enhancing agricultural production capabilities, thereby improving livelihoods.
- **Wadi el-Taym Women's Agricultural Cooperative**
 - provides resources and training to manage livestock and engage in dairy processing
 - enable women to take on more active roles in herding and livestock-related activities

Cooperative funding initiatives



Women in Agribusiness

	Grantee	Project Description
2024	Kawkaba Cooperative Association for Food & Agricultural Production	Equipment for Mouneh Production
	Al Liqaa El Bi'i in Rachaya Association	Equipment to Boost Cheese Factory Production
	Arsoun Ladies Association	Equipment to Expand Food Production
	Kfarmishki Cooperative	Equipment for Mouneh Production
2022	Al Liqaa El Bi'i in Rachaya Association	Equipment to Boost Cheese Factory Production
	Arsoun Ladies Association	Equipment to Expand Food Production
	Kfarmishki Cooperative	Equipment for Mouneh Production
	Zouk al Habalssa Association	Food Production in Zouk Al Habalssa
2019	Al Midan NGO	Fruit Serum Production in Zgharta
	Machghara Development Organization	Equipment for Machghara Mouneh Production
	Al Taybeh Cultural and Social Forum	Equipment for Al Taybeh Mouneh Production
2017	The Center of the Association of Agricultural Services in Jezzine	Equipment for Women Coop in Jezzine
	Mejdel El Koura Women's Cooperative	Equipment for Mouneh Production
2016	Women Agriculture Cooperative of Wadi el-Taym	Equipment for the Women Agriculture Cooperative



MOUNTAIN HER

Empowering women associations as drivers for agroecological transformation to generate income for Mountain farming communities

is an initiative aimed at empowering rural women's associations to become catalysts for social and economic progress in remote mountain communities across Algeria, Croatia, Italy, Lebanon, Morocco, and Tunisia

Main efforts of MountainHer for adaptive silvopastoralism

- **Promotion of Sustainable Business Models:** women's associations
 - super-short value chains
 - Equitable distribution of profits
 - Convert farm harvests into high-value food and malt products
- **Governance Enhancement:** Equitability and proper governance
- **Market Connectivity:**
 - with both physical retailers and digital markets.
 - Conducted consumer appreciation studies assess potential market shares for traditional foods and malt products.
- **Agro-Ecological Practices:** Training
 - Encourage associations to purchase local harvests at higher prices
 - Promote adoption of environmentally friendly agro-ecological practices.

Back to Basics

Collective Efforts

- Involve
- Engage
- Inform
- Empower
- Provide Access & Funds
- Revise Policies

Women Efforts

- Collaborate
- Diversify
- Mentor
- Support

Provide a pathway towards sustainable agricultural development, improved livelihoods, and greater resilience to climate change



PASTINNOVA



MOUNTAIN
HER

Questions



NOTRE DAME
UNIVERSITY
LOUAIZE
جامعة سيدنة
اللويزة

Accredited by
NECHE
New England Commission
of Higher Education



The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation



Not to forget many players

- Lebanese Agricultural research institute – LARI
 - Sustainable agricultural practices
 - Seed banking and resilient seed production
 - Research on animal resilience in a climate changing world
 - Farmer support for testing and extension services
- Lebanese reforestation initiative – LRI
 - Reforestation projects, environmental restoration, and supporting rural livelihoods through sustainable land-use practices
- Food and Agriculture Organization (FAO)
 - Providing technical expertise, funding, and supporting the integration of silvopastoral systems in Lebanon's agricultural policy frameworks
- International Center for Agricultural Research in the Dry Areas - ICARDA
 - sustainable agricultural practices suited for dryland conditions
- International Development Agencies
 - World Bank, UNDP, and USAID, EU, PRIMA