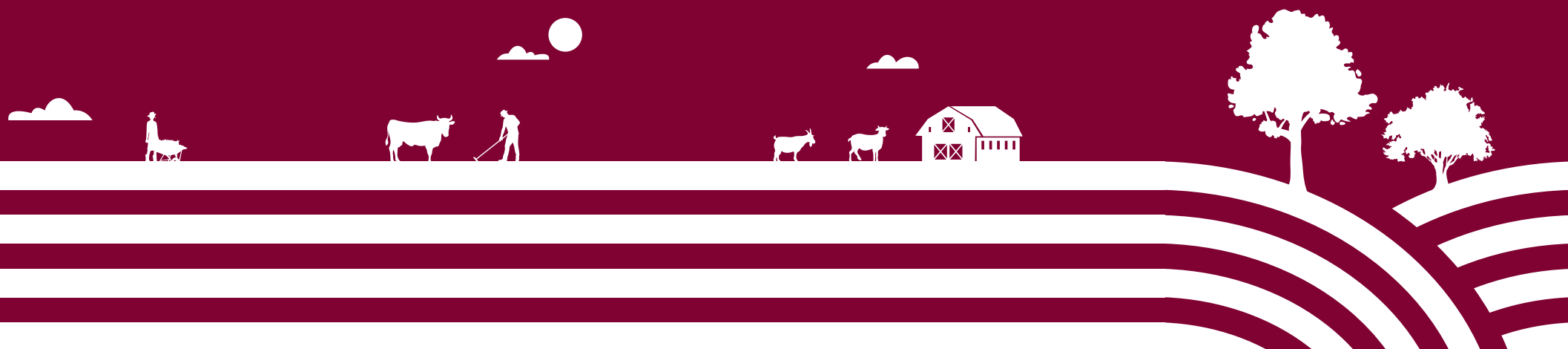




ENVIRONMENT AND SUSTAINABLE DEVELOPMENT UNIT (ESDU)

FACULTY OF AGRICULTURAL AND FOOD SCIENCES (FAFS)
AMERICAN UNIVERSITY OF BEIRUT



KEY ICONS



Circular
Economy



Women
Empowerment



Governance



Food
Security



Project



Agrifood Value
Chain



Youth
Empowerment



Initiative



Regional



Climate
Smart



Capacity
Building

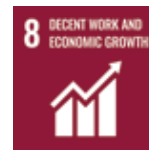


Tool



Water-Energy-
Food Nexus

ESDU CONTRIBUTES TO THE FOLLOWING SDGs



INTRODUCING ESDU

The Environment and Sustainable Development Unit (ESDU) is a regional research and development center hosted at the Faculty of Agricultural and Food Sciences of the American University of Beirut since 2001. ESDU has been dedicated to promoting sustainable rural livelihoods throughout Lebanon by engaging in large community development projects. Our focus on participatory development and capacity building, coupled with our emphasis on smallholder farmers, women, and youth in rural areas, has yielded impactful results.



ESDU MISSION AND VISION

Mission

ESDU seeks to serve and empower marginalized and rural communities by delivering research, education, training and outreach programs designed to promote sustainable livelihoods.

Vision

Attaining a network of self-generative eco-communities through a multi-faceted/multi-sectorial approach integrating climate smart agriculture, circular economy and local food systems.



ESDU'S REGIONAL PRESENCE



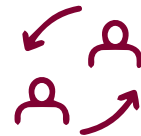
EvalMENA is a regional network in the Middle East and North Africa with 143 members from 22 countries, focused on advancing evaluation practices.



KariaNet, originating in 2005, is dedicated to Knowledge Management and sharing in agriculture and natural resources.



RUAFMENA, established in 2006, serves the MENA region in urban agriculture and food security.



EcoMENA, founded in 2013, focuses on eco-villages, emphasizing knowledge sharing and sustainable development.

ESDU THEMATIC AREAS



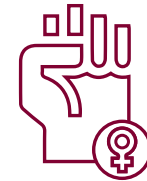
Empowering Local
Communities Through
People-Centered Approaches



Promoting Resilient Local
Food Systems and
Addressing Challenges
of Small-Scale Farmers



Recognizing the Stewardship
Role of Local Communities,
Especially Women, in Land
Preservation



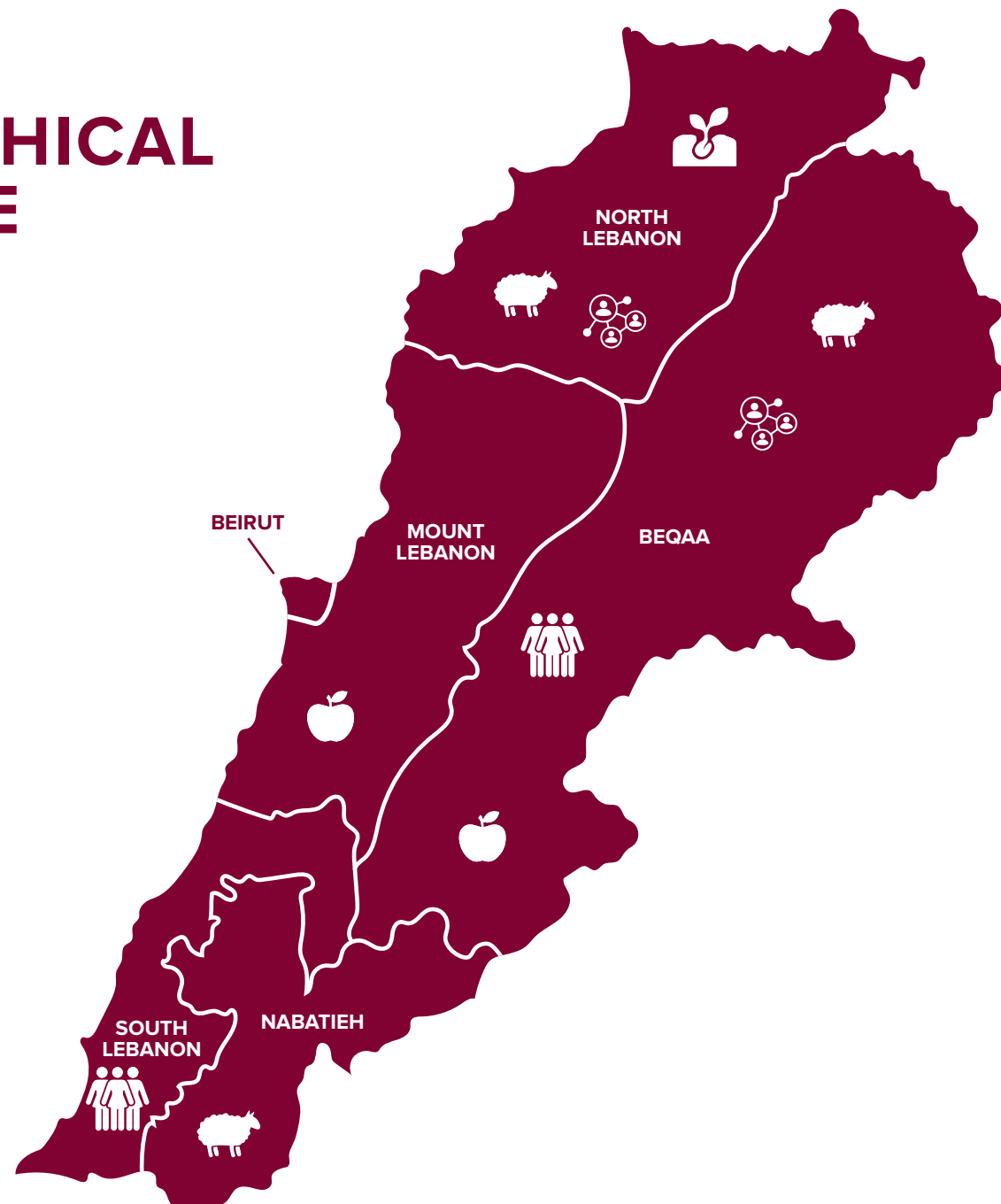
Enhancing Resilience of
Vulnerable Local Communities
and Refugees through Sustainable
Agriculture and Food Production

ESDU ACHIEVEMENTS (2021-2023)

ESDU has been implementing projects throughout Lebanon aiming at promoting the local food system, supporting local communities, enhancing resilience of small-scale farmer and processors in times of crisis, promoting sustainable best practices and fostering food security.



ESDU'S GEOGRAPHICAL PRESENCE



ESDU PROJECTS AND INITIATIVES TO DATE

Environment

- **Waste Management Adapted Solutions Tackled Through Youth Engagement For A Healthier Environment (WASTE):** Raising awareness about the adverse health effects of improper waste management, emphasizing the significance of involving youth in decision-making processes related to healthier waste management practices, and placing the subjects of "healthier waste management" and a "healthier environment" on the agenda of candidates participating in the upcoming municipal elections.



- **Transforming Waste Management (Med4Waste)** Collaborating across Mediterranean countries to revolutionize urban waste management policies for a cleaner and more efficient environment.



- **Designing Alternatives for Water, Waste, and Energy in Rural Areas (DAWWERA):** by integrating the circular economy approach that encompasses the social, economic, and environmental aspects, we aim to empower stakeholders within the water-energy-waste and food nexus by recognizing the connections among these sectors.



- **Arab Fund for Economic and Social Development (AFESD):** This project focuses on financing through the Arab Fund for Economic and Social Development innovative sustainable development solutions in sectors like energy efficiency, water management, waste, and reforestation while prioritizing the empowerment of marginalized groups and promoting social inclusion.



- **The Food and Environment in Islamic and Arab Culture Initiative (ITHMAR):** The ITHMAR initiative aims to revive traditional local food systems in the MENA region to promote people's well-being and food sovereignty, aligning with local, Arab, and Islamic traditions. Its primary objective is to form a consortium of academic, public, and private partners to incorporate adapted local diets into modern health guidelines and to promote sustainable food systems through research, advocacy, and policy development.



Research

- **Innovations in Ruminants Feed (SUROFLY)** Pioneering sustainable ruminants feed enriched with olive pomace and polyphenols for enhanced animal welfare and environmental stewardship.



- **Assessment of grazing trends and interaction between livestock farming and olive production in Nabatieh, Lebanon – University Research Board (URB):** The small-ruminant sector in Lebanon has been facing significant challenges impeding its development and trapping herders in poverty. Among these challenges, securing grazing land and affordable local feed alternatives. This study will help promote livelihoods of vulnerable communities, enhance sustainable resource management, and ensure resilience against climate change and economic shocks.



- **Collaborative Research for Rural Sustainability (CORUSUS):** Strengthening research and education through cross-regional cooperation to address the sustainability of rural livelihoods.





Development

- **Climate-Resilient Livestock Farming (CLIMAT 2):** Boosting rural community resilience to climate change in Akkar, Baalbek, and Hasbaya, with a special focus on sustainable livestock practices.



- **Women's Economic Participation (WEP):** Empowering women and women-led enterprises in Bekaa and the South, facilitating their active engagement in the Lebanese economy.



- **Cultivating Agro-Food Value Chains (MedSNAIL):** Fostering the development of small-scale traditional agro-food value chains in the Mediterranean, including Lebanon's Shouf and West Bekaa.



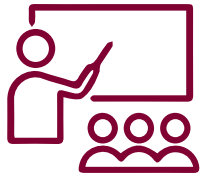
- **Empowering communities through capacity building and creation of new job opportunities within the agri-food sector (ECO):** The project focuses on promoting the resilience of vulnerable communities in Beirut and Mount Lebanon Governorates by enhancing food security and creating income-generating activities within the agri-food sector. This involves capacity building and the generation of new job opportunities.



- **Fostering Rural areas through Enhancing the Efficiency of Legumes value chain for Agribusinesses and small-scale Farmers (Re-Leaf):** Promoting growth in the agri-food sector by improving the efficiency of development initiatives and strengthening the capacities of small-scale farmers and agri-businesses.



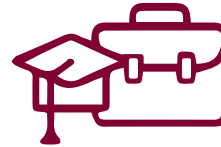
LEADING THROUGH ACADEMIA



Engaging 19 Interns



Engaging 14 Graduate Assistants
and 8 Graduate Research Assistants



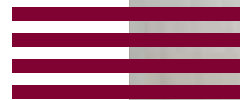
4 Student Employment



Disseminating results
through publications

LIVING LABS

ESDU is at the forefront of innovation with its groundbreaking living labs initiative. These labs transcend traditional research models by immersing in real-life settings, creating dynamic platforms for validating and scaling innovations. By actively involving local communities and stakeholders, living labs harness collective expertise to co-create solutions that are both innovative and relevant. This user-centric approach ensures that the solutions generated not only tackle real-world challenges but also drive sustainable value and positive transformation. ESDU's living labs embody a powerful commitment to fostering change that resonates and empowers communities for a brighter future.



FOOD HERITAGE FOUNDATION

Additionally, in 2013, ESDU established the Food Heritage Foundation (FHF) as a non-profit organization to conserve Lebanon's traditional food heritage, working hand in hand with FHF to ensure the lasting sustainability of their projects. Through knowledge management, appropriate technologies, and impact analysis, ESDU continues to make a significant and positive difference in communities both locally and regionally.

🌐 <https://food-heritage.org>

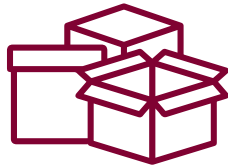
the Food Heritage foundation



ESDU X FHF RELIEF IN ACTION

Meeting the needs of vulnerable communities

Since the onset of the economic crisis, ESDU, in partnership with FHF, has been providing vulnerable communities with:



MOUNEH BOXES

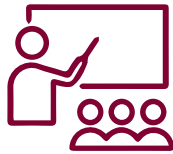
Composed of local products purchased from rural small-scale producers & cooperatives participating in ESDU's capacity building projects.



SEEDLINGS/SEEDS & TECHNICAL GUIDANCE

Distributed to farmers, accompanied with technical guidance on the sustainable management of their lands, for the aim of helping farmers in attaining their self-sufficiency in these dire times.

IN 2023 ESDU REACHED OUT TO:



10,095 direct beneficiaries
(>60% women) participated
in capacity building projects



8,500 vulnerable households
received hot meals



80 Coops/SMEs were
supported through trainings
and provision of equipment



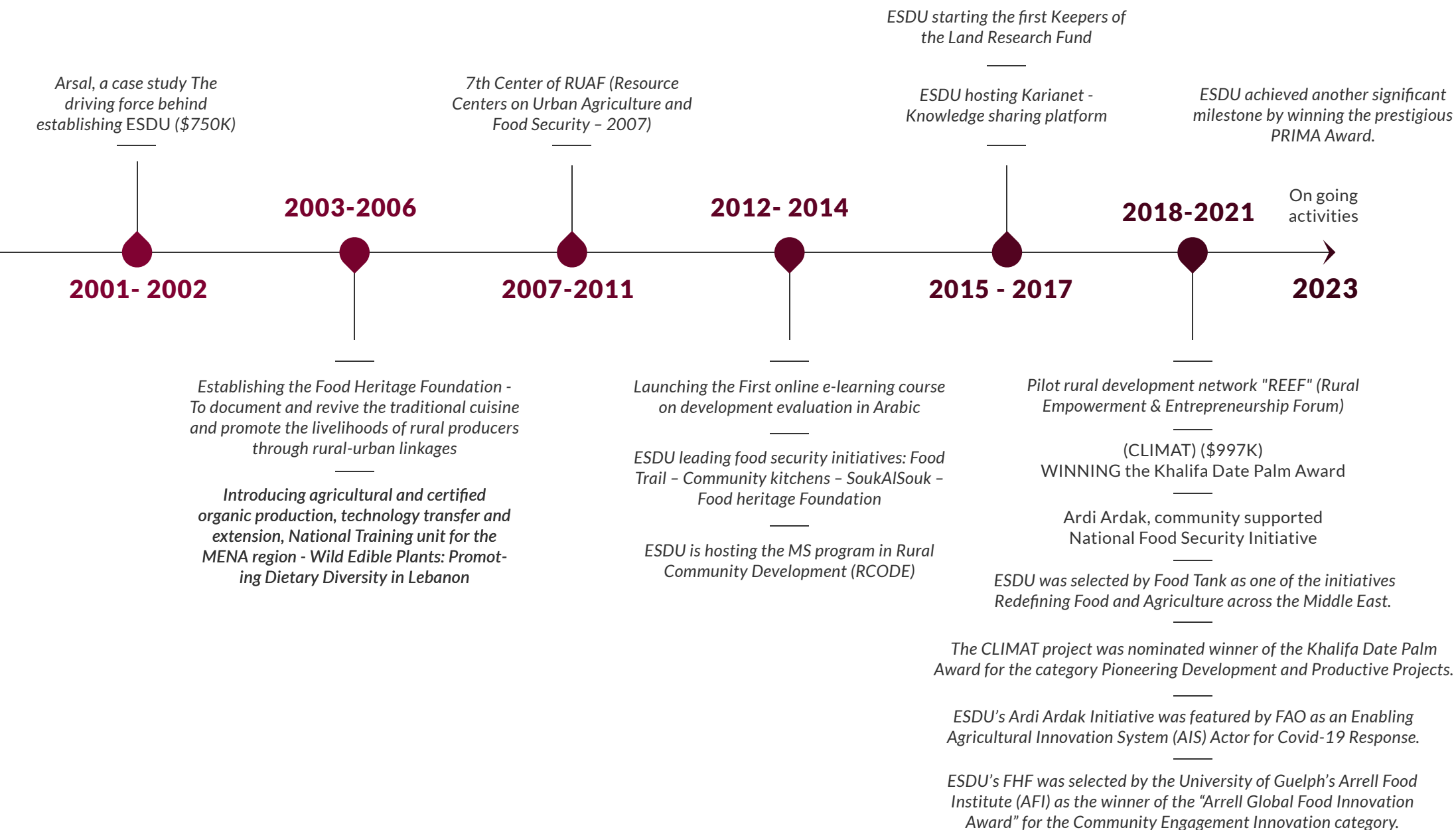
275 farmers/landowners
were supported technically in
the sustainable management
of their lands



10 established
demo-plots/living labs



282 direct beneficiaries
were engaged in ESDU's
marketing channels





 WWW.AUB.EDU.LB/FAFS/ESDU

 ESDU@AUB.EDU.LB

  
ESDU-AUB