



Holistic and Multi-professional Mechanism for a Pakistani Olive Oil Value Chain



FINAL

Status Narrative & Financial Report

Project OliveCulture

“Holistic and multi-professional Mechanism for a Pakistani Olive Value Chain”

JANUARY 16TH, 2022 – JUNE 30TH, 2024



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LIST OF ACRONYMS

AICS	Italian Agency for Development Cooperation
AP&PR	Action Plan and Policy Recommendations for a Holistic Development of the Pakistani Olive Value Chain
BARI	Barani Agricultural Research Institute Chakwal, Punjab
BRSP	Balochistan Rural Support Program
CEFORT	Centre of Excellence for Olive Research and Training (CEFORT) at Barani Agriculture Research Institute, Chakwal
CIHEAM Bari	Mediterranean Agronomic Institute of Bari
CIHEAM	Centre International des Hautes Etudes Agronomiques Méditerranéennes
DGCS	Directorate General for Development Cooperation
DL	Distance Learning
EAD	Economic Affairs Division, Ministry of Economic Affairs
EPS	Environmental Protection Society
FAO	Food and Agriculture Organization of the United Nations
GAP	Good Agronomic/Agricultural Practices
GPU	Germplasm Producing Unit
GWP	General Working Plan
HACCP	Hazard Analysis Critical Control Points
KP	Khyber Pakhtunkhwa
IMS	Information and Management System
ITA	Italian Trade Agency
MAECI	Italian Ministry of Foreign Affairs and International Cooperation
MNFS&R	Ministry of National Food Security & Research
MoU	Memorandum of Understanding
NARC	National Agricultural Researcher Center
NOVCP	National Olive Value Chain Policy up till 2030, along with the Implementation Strategy and Road Map for 2024-2030
NPO	Non-profit organization

Pakolive	Project “Promotion of Olive cultivation on commercial scale in Pakistan – Phase II”
PARC	Pakistan Agricultural Research Council
PMU	Project Management Unit
POD	Pakistani Oilseed Department
PODA	Potohar Organization for Development Advocacy
PRA	Participatory Rural Appraisal
RTA	Remote Technical Assistance
Scaling Up	Project “Scaling Up OliveCulture Value Chain and Promoting Climate-Resilient Rural Development in Pakistan”
SMEs	Small and Medium Enterprises
SWOT	Strengths, Weaknesses, Opportunities, Threats analysis
T.A.	Technical Assistance
ToR	Terms of Reference
WP	Work Plan

1 EXECUTIVE SUMMARY

The Project **OliveCulture - Holistic and multi-professional Mechanism for a Pakistani Olive Value Chain** was designed to strengthen the Pakistani olive oil value chain on several levels in a holistic, participatory, and multifunctional way, involving institutions, businesses, farmers, youth, women, and consumers, to improve productive, economic, and qualitative performances.

The Project, which started in January 2022 and ended in June 2024, was financed by the Italian Government and implemented by the Mediterranean Agronomic Institute (CIHEAM) located in Bari (Italy), in coordination with the Pakistan Oilseed Department (POD) of the Ministry of National Food Security and Research (MNFS&R), the counterpart.

The Ministry of National Food Security & Research (MNFS&R), through the Pakistan Oilseed Department (POD) and the “Promotion of Olive Cultivation on commercial scale in Pakistan – Phase II” (Pakolive), the flagship initiative financed under the Public Sector Development Programme/PSDP, were the main partners, along with the agricultural departments of Balochistan, Khyber Pakhtunkhwa (KP), and Punjab.

Although significant progress has been made in olive cultivation, establishing the entire value chain is far from being achieved. The investment in olive plantations started in the country in 2012 with the support of the Italian Government over 2,320 hectares and steadily increased to about 4.3 million plants cultivated on about 18,500 hectares of land. The correlated olive processing units have equally been installed, from very few in 2012 to 35 currently operational. Although attempts were made to establish a value chain growing parallel to the plantations, the results have been limited. Major constraints can be synthesized in the lack of a sectoral policy, low productivity, the absence of the private sector in harvest processing and commercialization, the absence of a locally certified brand, and the lack of trading of local olive products.

The Project has been implemented to support the federal and provincial institutions in filling the gaps through technical assistance provided by Italian expertise in the areas of weakness. The strategy adopted consisted of systematizing and consolidating the results previously achieved on a broader perspective, inducing innovations and added values to respond to the Country's agricultural needs and challenges in increasing food and nutritional security, environmental resilience, and economic development by involving the key stakeholders of the olive value chain, to be raised to an Olive Sector.

The CIHEAM Bari brought to Pakistan its vast and historical experience of the olive sectors of the Mediterranean region, through long and short-term missions of Italian experts, addressing the needed areas of weaknesses, contributing to enhancing knowledge and awareness of olive trees and fruits at all levels. Salient achievements include:

Under Result 1, “Agronomic, cultural and social heritage of the olive tree and its potentialities are analyzed”, significant activities meant to introduce the Project in the olive arena consisted of (i) collecting historical data and information on the actors active in the olive value chain, (ii) collecting

primary data on old and new plantations and wild olives, and (iii) carrying out a situation analysis on the technological level and training need assessments.

Under Result 2, “An adequate policy supports the rural development of the olive sector in Pakistan” the policy has been addressed in two stages: firstly, an “Action Plan and Policy Recommendations for the Holistic Development of a Pakistan Olive Value Chain” was developed through a bottom-up approach and endorsed by MNFS&R; then, on these grounds, a “National Olive Value Chain Policy, along with the Implementation Strategy and Road Map for 2024-2030/NOVCP” has been formulated to operationalize the Action Plan. The NOVCP is the result of the assessments and analysis done on the main critical issues depicting the current situation of the Olive sector in the country, corroborated by the experience acquired from field activities by the Project. It is a programmatic, technical document containing the definition of strategic objectives, the identification of possible implementation interventions, and the identification of resources that can be activated. The process of NOVCP’s approval will be carried forward by the MNFS&R.

Within the framework of the NOVCP, a “Responsible Participatory Tourism Plan” has been formulated. The olive crop as a catalyzer opportunity in enriching the offer of new economic avenues for the rural communities has been interconnected with the environment, culture, and territory, and “olive oil paths” have been identified.

The Position Paper “Delineate a Policy Framework on Valorizing Olive Production as a Form of Climate Change Mitigation” was based on the assumption that olive plantations can also be used for carbon credit generation, becoming an additional source of revenue for the olive growers. On the grounds of the study undertaken by the Project, the net carbon balance on the conditions sampled was worked out to be 3.70 tCO₂eq per hectare, therefore the potential is significant. However, promoting olive cultivation for climate change mitigation and carbon trading in Pakistan requires the adoption of a comprehensive policy framework that includes promoting sustainable farming practices, amendment in the carbon trading policy, awareness, and capacity building campaigns, involvement of the private sector, establishing linkages with national and international organizations and development of an effective measurement, reporting and verification (MRV) system.

Under Result 3, “The Pakistani olive value chain improved and characterized on different levels” the Training Need Assessment carried out at the initial stage guided all the activity done in capacity building in all fields for the adoption of Good Agricultural Practices and Climate Smart Agriculture. All the technical missions of Italian experts supporting the activities of the PMU were organized and implemented in correlation to the olive crop calendar, following a consolidated scheme consisting of providing theoretical notions to scientists and technicians and then applying them in the field with the farmers. A total Nos. 709 Technicians & Scientists, and Nos. 1040 Farmers were trained, strengthening the private sector.

A significant achievement consisted of repeatedly providing training in processing protocols and hygiene safety to almost all operators and managers of the 35 olive oil processing units operating in the country.

It was done in the three provinces, gathering the trainees in the selected units. From the beginning, the HACCP (Hazard Analysis Critical Control Points) concept was introduced, starting from the basic cleaning and maintenance operations, which were largely missed. Complete Guidelines for adoption were developed and distributed. A total of Nos. 184 technicians and operators were trained. In parallel, laboratory technicians were trained in Italy and Pakistan for quality and sensory analysis.

Under Result 4, “Women and Youth are engaged in income-generating activities along the olive tree value chain”, a comprehensive development resulted in the creation of Nos. 26 Olive Business Development Groups generating income for Nos 142 community members in Nos. 6 districts in the three provinces, producing and selling olive-based products, mainly pickles, tea, soaps, and cosmetics. It was a pioneering activity in Pakistan, for which training sessions in basic skills, business planning, and specific technical skills were instrumental to production, recording keeping, managing bank accounts, and marketing. The interest shown demonstrated the potential of involving women and youth in the value chain, although the commercialization represented a serious challenge.

Under Result 5, “Pakistani society is committed in promoting olive culture.” Awareness-raising campaigns and education on the use of quality olive oil, festivals, Galas and events, and aggressive use of social media have all been factors that have raised knowledge in the country. It is significant to mention the Nos. 43.000 followers on Facebook. A trustworthy Market Study was conducted jointly with the International Trade Center of the WTO, which provided stakeholders and policymakers with reliable information on the consumption trend of olive oil and oil products, including the views of importers, retailers, and consumers. Supporting branding and quality certification of olive products was addressed.

On the grounds of the significant impact of the Project, the Government of Pakistan requested to expand the initiative. Consequently, the Directorate General for Development Cooperation of the Italian Ministry of Foreign Affairs and International Cooperation has financed the **Scaling Up OliveCulture Value Chain and Promoting Climate-Resilient Rural Development in Pakistan**, worth 3 million Euro, foreseen to be implemented from August 2024.

The Report illustrates the activities and related expenditures, in compliance with the requirements set by the Agreement with the Donor.

2 PROJECT SYNOPSIS

Project Title	OliveCulture – Holistic and Multi-professional Mechanism for a Pakistani Olive Oil Value Chain
Country/Areas	Pakistan, Provinces of: Balochistan, Khyber Pakhtunkhwa, Punjab, Sindh, Gilgit-Baltistan and Islamabad Capital Territory.
Counterpart	Pakistan Oilseed Department – Ministry of National Food Security and Research
Implementing Agency	CIHEAM Bari - Mediterranean Agronomic Institute of Bari
Donor	Italian Ministry of Foreign Affairs and International Cooperation/ Italian Agency for Development Cooperation
Overall objective	The Pakistani State and the suitable provinces, particularly the neighbouring areas with Afghanistan, have improved food and nutritional security, environmental resilience and cultural enhancement through olive growing and its related industries
Specific Objectives	Rural communities and institutional, public and private actors in Pakistan's olive growing areas have a sustainable holistic mechanism for strengthening the Pakistani quality olive value chain and its entire spectrum of professions to ensure continuity in income generation.
Outputs/Expected Results	<ol style="list-style-type: none"> 1. Agronomic, cultural and social heritage of the olive tree and its potentialities are analysed; 2. An adequate policy supports rural development of the olive sector; 3. Pakistani olive value chain improved and characterized at different levels; 4. Women and youth are engaged in income-generating activities along the olive tree value chain; 5. Pakistani society is committed to the promotion of the Olive Culture;
Total budget	€ 1,500,000
Project start date	17 th January 2022
1stSteering Committee meeting	30 th March 2022
2ndSteering Committee meeting	21 st November 2022
3rdSteering Committee meeting	20 June 2023
4thSteering Committee meeting	14 March 2024
Project duration	29.5 months
Inception Phase	2 and half Months (17 th January 2022 – 30 th March 2022)
Implementation Phase	27 and half Months (1st April 2022 – 30 June 2024), including an Extension period from 17 th March to 30 th June 2024.

Pakistan lies in the temperate zone with climatic regimes of hot to dry along the coast and banks/plains of the Sindh River, however, it becomes moderate to cold in the northern uplands and Himalayas. In short, Pakistan has a continental type of climate with higher variations both daily and seasonally because of its presence in the Tropic of Cancer.

Four seasons are recognized: 1) a cool, dry winter from December to February; 2) a hot, dry spring from March through May; 3) the summer rainy season, also known as the southwest monsoon period, occurring from June to September; and 4) the retreating monsoons from October to November. Like Temperature and climatic regimes, Precipitation/rainfall frequency also varies greatly in the country. On average, rainfall of 150 mm is received in most parts of Pakistan, however, the northern areas average is about 400 to 1000 mm of rainfall as well.



Fig 1: proposed area of intervention

Pakistan is predominantly an agrarian country with 19.6% agriculture share in the national GDP. However, out of the country's total area of 79.6 million hectares, only 22 million Ha is under cultivation of different crops. It has been estimated that about an additional 8-million-hectare land in Pakistan could be suitable for crop cultivation. Increasing the cultivated surface could help to decrease the shortage of edible oilseeds and oils in the country for which a considerable exchequer is spent every year as an import bill to cater to national needs. The introduction of olive cultivation in Pakistan, for its suitability to be cultivated in marginal land, its moderate need for water, and the capacity to grow under adverse climate conditions (as a smart crop), for its peculiar properties of fruiting for longer duration, could significantly

enhance the economic benefits throughout the olive value chain, including creation of employment opportunities for Woman and Youth.

The Olive was first introduced as a commercial crop in 2012 through the Pakistan-Italian Debt Swap Agreement (PIDSA) and since then, it is estimated that through the Public Sector Development Program, in particular with the project Promotion of Olive Cultivation on commercial scale in Pakistan (Phases I & II), the Annual Development Program, and Provincial investments, about 5 million Olive plants are being cultivated in Baluchistan, Khyber Pakhtunkhwa and Punjab, whereas trials have been established in Azad Jammu & Kashmir Gilgit Baltistan and Sindh.

3 PROGRESS ON THE PROJECT INDICATORS

The Table below reports the status of the Indicators of the Project per Results, the Targets, and the Verification Sources since the beginning of the Project (January 2022). The Indicators reported **in green** have been achieved and, in many cases, exceeded, whereas the ones **in brown** are below the targets.

Result 1	<i>Agronomic, cultural and social heritage of the olive tree and its potentialities are analysed</i>		
	POD has a Baseline survey on the "state of the art" of Pakistani olive growing with technical, agronomic and social information on places and actors active in the olive sector.	Production of a baseline survey of the olive state of the art	Verification source
	Baseline survey 100%		1. Report on "Olive Trees in Pakistan (Imported and Wild)" 2. Report "The State-of-the-art of National and International Initiatives on olives in Pakistan" 3. Report on the "State of the Art of the Resources Used (Structures, Equipment and Inputs)". all accessible on the website: www.oliveculture.org
	Identification of homogeneous areas of cultivated and 'wild' olive orchards in Pakistan	Representative thematic database created	Verification source
	85%		Document "Identification of a representative thematic database of the olive tree condition in Pakistan through the use of satellite imagery";
Result 2	<i>An adequate policy supports rural development of the olive sector in Pakistan</i>		
	Nr. 1 inter-institutional committee/working group "Pakistan Olive Oil Council" (POOC) established and functional for MNFS &R and the POD	Creation of a olive stakeholder group with 10 members	Number of Stakeholders trained
	100%		Total
			11
			Male participants
			9
			Female participants
			2
	Nr. 1 Integrated Development Plan drawn up for the implementation of strategic interventions along the entire Pakistani olive oil chain by the end of the Project	Action Plan and Policy Recommendations produced	Verification source
	100%		"Action Plan and Policy recommendations for a holistic development of the Pakistani Olive Value Chain" produced by the Project

Result 3	Pakistani olive value chain improved and characterized at different levels		
	Nr. 20 new public and private professionals of the supply chain certified to assist single or associated farmers with GAP by the end of the Project	20	Number of Technicians
	125%		Total
		Total MasterTrainers	25
		Male technicians trained	622
		Female technicians trained	73
	Nr. 450 Individual or associated farmers adopting GAP along the supply chain	450	Number of Farmers
	220%		Total
		Total	991
		Male farmers	985
		Female farmers	6

Result 4	Women and Youth are engaged in income-generating activities along the olive tree value chain		
	Number of Income generation activities (IGA) for rural women along the Olive Value Chain launched	2	IGA Launched
	150%		Total
		Nr of IGA Launched	3
		Nr of members total	146
		Male members	35
		Female members	111
	Number of participants in courses provided for the rural women	120	Number of Course participants
	335%		Total
		Total participants	402
		Male	176
		Female	226
	Number of Seminars for the promotion of the olive value chain to the Pakistani diaspora in Italy and other countries	1	Number of Pakistani belonging to Diaspora
	100%		Total
		Total	19
		Male	18
		Female	1

Result 5	Pakistani society is committed to the promotion of the olive culture		
	An adequate national holistic communication and promotion strategy of the Pakistani olive oil chain framed by the end of the Project	100%	Number of Participants
	Communication & Promotion strategy		Total
		Total	100%
	Nr. 1000 farmers, producer associations, the private sector and consumers use the holistic portal and the Places of OliveCulture as platforms for exchanging knowledge on an international scale	1,000	Number of Users
	322%		Total
		OliveCulture Website	3,217
		Facebook Followers	41,000
		Facebook Viewers	1,812,695
	Nr. 2000 Civil society, consumers & tourists involved in events through the information and promotion of the OliveCulture Places	2,000	Number of Participants
	350%		Total
		Total	7000

It is worth mentioning that it may be considered a valuable outcome of the Project the financing by the Directorate General for Development Cooperation of the Italian Ministry of Foreign Affairs and International Cooperation of the new initiative **Scaling Up OliveCulture Value Chain and Promoting Climate-Resilient Rural Development in Pakistan** (Scaling Up, from now onward) worth 3 million Euro, to be seen as an expansion of the results so far achieved. The starting is foreseen by August 2024.

4 NARRATIVE OF RESULTS AND ACTIVITIES

0. Logistic phase

The Inception Phase started on the 17th of January 2022, when the CIHEAM Bari International Project Coordinator took over on-site functions. During this phase, the General Working Plan (GWP) was completed.

On the 30th of March 2022, the Members of the Steering Committee, Co-Chaired by the Secretary MNFS&R and the Ambassador of Italy in Pakistan and including the Secretaries of Agriculture of the Provinces, AICS Islamabad, CIHEAM Bari, and other prominent Officers related to the Project, approved the General Working Plan & Budget, and the first Annual Work Plan & Budget.

The Implementation started therefore on the 1st of April 2022 and the PMU¹ was established in Islamabad.

Activities of the Logistic Phase

Below are reported as “Logistic Phase” the activities that were instrumental in achieving the expected five Results:

0.1. General Working Plan (GWP) and Annual Working Plans (AWPs)

During the Inception Phase, the analysis, assessments, field visits, and meetings required for the preparation of the General and the first Annual Working Plan were done in agreement and with the collaboration of the counterparts, the POD of the MNFS&R and the flagship initiative “*Promotion of Olive Cultivation on Commercial Scale in Pakistan - Phase II*”. On the 30th of March 2022, the first

¹ PMU and Project have the same meaning in the document.

Steering Committee meeting approved the General Working Plan & Budget, and the first Annual Work Plan & Budget.

On the 21st of November 2022, the second Steering Committee meeting approved the 1st Status Narrative & Financial Report, the revised General Working Plan & Budget, and the second-year Annual Work Plan and Budget prepared by the Project.

On the 20th of June 2023, the third Steering Committee meeting approved the 2nd Status Narrative & Financial Report, and the third year Annual Work Plan and Budget.

On the 14th of March 2024, the fourth Steering Committee meeting to approve the 3rd Status Narrative & Financial Report, and the proposed Work Plan and Budget for the “No-Cost Extension” for the period from 17th March to 30th June 2024.

The Minutes of the Steering Committees are Attached as **ANNEX 1**

0.2. Engagement of PMU

The International Project Coordinator Dr Marco Marchetti and the International expert on Olive and development cooperation Dr Costantino Parma were based in Islamabad on a long-term mission. Supervised by CIHEAM Bari headquarters, they led the Project Management Unit (PMU). They were supported by short-term missions of international Experts from the headquarters, internal or external to the Institute.

The Pakistani staff of the PMU was constituted of 4 technical/administrative, 1 Project Assistant, and 6 auxiliaries.

The coordination, management, and monitoring of the activities run smoothly as per the agreed timelines throughout the Project life.

0.3. Purchase of equipment

The premises for the Project Office were rented. It was furnished with workplaces and a meeting room, also utilized for convening Zoom meetings and Remote Technical Assistance (RTA), and equipped with internet connection, computers, printers, etc.

Equipment and furniture were procured for the installations in the provinces of 6 RTA stations for the activities of the Women and Youth in Olive Value Addition.

To prevent Covid-19 contaminations, the office was equipped with materials (masks, disinfectants, thermometers, etc.). It is worth mentioning that the coronavirus disease was still present at the start of the Project therefore it has been necessary to adopt the required measures².

The procurement was done according to CIHEAM Bari rules and procedures.

0.4. Management of the Project's Office and vehicles

The management of the Project Office and stations for the RTA, equipment, and vehicles complied with the CIHEAM Bari rules. Two Vehicles were rented on a long-term basis, with some occasional additional hiring occurring on a need basis.

It is worth mentioning the occasional hiring of bulletproof armoured vehicles, from 2023 onward due to security reasons, for the activities carried out by the Italian experts in Khyber Pakhtunkhwa. It was a precondition for requesting the NOC from the provincial Authorities and the high cost has impacted the planned budget and disturbed the smooth running of the activities.

0.5. Project Coordination

The Project coordination and management of the funds was done in Islamabad by the CIHEAM Bari resident experts.

The management team in the headquarters in Italy was composed of the following personnel: the Project Coordinator; the Principal Administrator; the Chief Accountant; the Scientific Supervisor;

² The National Command and Operation Center (NCOC), the principal body governing the policies and implementation of COVID-19, was closed on April 1st because of all-time low COVID-19 indicators and the high level of vaccination.

the Desk Officer; and the Information Technology. In addition, several other personnel supported the Project on an ad-hoc basis.

0.6. Monitoring of the Project

The Project monitored the activities through an information management system. As well as the Experts in short missions also provided feedback to the headquarters. The financial monitoring was ensured by the CIHEAM Bari headquarters.

0.7. Visibility and dissemination of Project activities and results

The activity was executed in Pakistan and Italy, following the Visibility & Communication Plan prepared by the Project and the headquarters, and approved by AICS Islamabad. Communication was constantly updated and publicly available on the OliveCulture Social Media pages and Website, along with the technical materials produced. Details will be given in Activity 5.2.

0.8. Information and prevention actions for the containment of the COVID-19 Coronavirus

As reported above, the adoption of the required measures was done in compliance with the prevailing situation. At the central level as well as during the activities in the field.

Result 1 - Agronomic, cultural and social heritage of the olive tree and its potentialities are analysed

Under Result 1, there are two Indicators; the first is that “POD has a Baseline survey on the state-of-the-art of Pakistan's Olive growing with technical agronomic and social information on places and actors active in olive sector”. For this indicator, 100 percent of the result has been achieved as the state-of-the-art reports were completed (reports are accessible on www.oliveculture.org).

The second Indicator under this Result is “Identification of homogeneous areas of cultivated and “wild” olive orchards in Pakistan”. For this Indicator, 85 percent of the targets have been achieved.

The baseline and diagnostic analysis highlighted the link between the olive value chain, social commitment, and cultural heritage in Pakistan. This Result is fundamental as it has provided the basis for achieving the other Results and the specific objective. It aims to systematize all the information and experiences of previous and ongoing initiatives conducted at the different levels

of the value chain. The knowledge acquired has been shared with other relevant stakeholders at the national and local levels.

The progress for the Indicators is presented in the below table:

	<u>Indicators:</u>	Progress
<u>Baseline data:</u> Scattered data. Need for streamlining all information. All stakeholders will be participating in the activities.	*POD has a Baseline survey on the “state of the art” of Pakistani olive growing with technical, agronomic, and social information on places and actors active in the olive sector”. Verification Source *Report on “Olive Trees in Pakistan (Imported and Wild)” *Report “State of the art National and International Initiatives on Olives” *Report on the “State of the art of resources used (Structure, Equipment, Inputs) All are accessible on the website. www.oliveculture.org	100%
	*Identification of homogeneous areas of cultivated and 'wild' olive orchards in Pakistan Verification Source *Documented “Identification of a representative thematic database of the olive tree condition in Pakistan through the use of satellite imagery”.	85%

Activities

- 1.1 Analysis of the presence of the olive tree and its potential in the relevant provinces,
- 1.2 Analysis of the situation of olive crops, types of plants, and needs in the Project areas,
- 1.3 Mapping of existing services and facilities³

³ Due to many similarities, the former Activities 1.3 and 1.4 of the Project Document were merged in a single activity.

Starting from the inception phase, several inter-institutional thematic tables were organized to acquire the information to develop the above-mentioned Activities, daily consultations were held with POD and PakOlive, and several meetings were organized in the provinces with stakeholders and beneficiaries' representatives. Field visits and examinations of the available documentation provided reliable information on the distribution of olive trees in the country, which was conducive to drafting the report *“Assessment of the Presence of Wild and Farmed Olive in the Country”*.

In addition, Rapid Rural Appraisals (RRAs) were carried out in the provinces during the short mission of two Italian experts for GAP training with a focus on Olive cultivation and Plant protection, done in September 2022 with the POD and provincial technicians, farmers, counterparts, local authorities, and the stakeholders in general terms, which were conducive to drafting the report *“Analysis of the situation of olive crops, types of plants, and needs in the Project areas”*.

Finally, by collecting the available information, a report was prepared on the *“Mapping of existing services and facilities”* which portrays the registered nurseries, olive varieties, olive oil extraction and table olive units, and the R&D stations involved in olive activities.

The combined report encompassing the above-mentioned topics, titled Assessment of the Olive Value Chain in Pakistan was approved by the 2nd Steering Committee (SC) meeting held on 21st November 2022. The publication is attached as **ANNEX 2**, and accessible on the website www.oliveculture.org. Along with an inter-institutional Thematic Map.

1.4 Analysis of the technological level in the value chain.

An assessment of the protocols and hygiene procedures adopted in Pakistan in the olive oil mills and table olives and processing plants was conducted during the missions of the CIHEAM Bari expert Mr. Ugo Ametta, for the olive oil mills from 24 September to 1 October 2022, and Dr. Matteo Milanese for the table olive and value addition from 8th to 15th October 2022. The Activity was part of the Training sessions conducted in the above-mentioned periods.

The hygienic conditions were found to be unsatisfactory, and it was recommended that the operators' and managers' habits be drastically changed to avoid harmful contaminations.

Accordingly, the Project undertook the formulation of the Hygiene and Hazards Analysis Critical Control Points (HACCP) Protocols.

1.5 Stakeholder analysis and needs assessment of skills.

The Project conducted the first Training Needs Assessment through interactive meetings with the main stakeholders and field visits. Accordingly, the target groups were defined (technicians, producers, nurserymen, mill operators and managers, rural women and youth, traders, etc.) as well as their training needs. Then, the International Experts further evaluated the needs during their missions, which guided the training sessions conducted in the first year. The capacity building imparted in the second and third years was aligned with the TNA and the skills progressively acquired by the beneficiaries.

1.6 Organization of a system for primary data collection

The Project collected scientific data on more than 20 exotic olive varieties across diverse agro-pedo-climatic zones in Pakistan, spanning multiple provinces from PIDSA⁴ plantations. In particular from the adaptability trials, through sampling methodology, the evaluation focused on varietal compatibility by assessing vegetative growth responses and suitability for oil and table olive production, covering morphological and phenological data characteristics such as tree vigor, growth habit, canopy density, and fruit type, along with bio-agronomic attributes, including tolerance to abiotic and biotic stresses, productivity potential under Good Agricultural Practices (GAP), and adaptation to region-specific production practices to understand varietal responses to climate, soil, and nutritional management.

Based on the observations and data collection, the Project published in May 2024, in coordination with the headquarters, the Selection of Olive Cultivars and their Potential by Province, to assist stakeholders in selecting the most suitable olive varieties for their respective climates. This document provides clear insights into provincial varietal suitability, considering both economic potential and the feasibility of olive cultivation for oil and table olive production. The publication is attached as **ANNEX 3**.

⁴ Pakistan Italian Debt Swap Agreement

For the primary data, the Project has created a thematic spatial database on the presence of cultivated olive groves and wild olive agglomerates by applying an innovative approach of CIHEAM Bari, consisting of an Earth Observation (EO) process throughout the Pakistan territory. The activity involved a careful bibliographic analysis of the spatial presence of two varietal conditions, a large use of data from Sentinel-2 satellite, and the development of advanced geospatial processors (identification algorithms); such processors have been able to extract the temporal physiological dynamics and spatial patterns of the target varieties within a parallel computing environment (bare metal and virtual machines) of the CIHEAM geomatics infrastructure in Bari.

The database was tested within a parallel computing environment to refine the accuracy rate of its presence on the ground. The database will represent a great asset put at the disposal of the local partners. The Report of the Activity, in progress, is attached as **ANNEX 4**.

Result 2 - An adequate policy supports the rural development of the olive sector in Pakistan

Under Result 2, there are two Indicators; the first is the “N.1 Inter-institutional committee/working group *Pakistan Olive Oil Council (POOC)* established and functional for MNFS&R and the POD”. For this Indicator, 100 percent of the target has been achieved as an Olive Stakeholder Group (OSG) has been created with 11 members consisting of 9 males and 2 females, being the POOC premature. Through a study visit in Italy, the members of the OSG became increasingly familiar with the critical issues regarding “sustainable rural development”, multifunctionality, planning of participatory and inclusive rural policies in the olive oil sector, and on the adoption of specifications and certifications, enabling them to substantially contribute to the drafting of a “national legislative framework for olive oil”

The second Indicator is “N.1 Integrated Development Plan drawn up for the implementation of strategic interventions along the entire Pakistan olive oil value chain by the end of the Project”. For this Indicator, 100 percent of the target has been achieved by preparing the “Action Plan and Policy Recommendations for a Holistic Development of the Pakistani Olive Value Chain (AP&PR)” released in mid-2023, with substantial contribution of the OSG.

Additionally, upon request of the MNFS&R, the Project formulated, building on the “Action Plan”, the draft “National Olive Value Chain Policy up till 2030, along with the Implementation Strategy and Road Map for 2024-2030 (NOVCP)”. It includes tools to implement responsible tourism strategies around olive, as well as promoting olive crop production as a source of CO₂ absorption within the framework of the measures adopted on "Climate Change Mitigation".

The below indicators were updated as regards to the ones reported in the Project Document:

<p><u>Baseline data:</u> Up to date, there is not a structure to support the olive value chain at national level.</p>	<p><u>Indicators:</u></p> <p>*Nr. 1 inter-institutional committee/working group “Pakistan Olive Oil Council” (POOC) established and functional for MNFS &R and the POD.</p> <p>Verification Source</p> <p>*An Olive Stakeholder Group established consisting of 11 members including 9 males and 2 female members (details can be found in Project Reports).</p> <p>*Nr. 1 Integrated Development Plan drawn up for the implementation of strategic interventions along the entire Pakistani olive oil chain by the end of the Project.</p> <p>Verification Source</p> <p>“Action plan and policy recommendation for a holistic development of the Pakistan Olive Value Chain” produced by the Project.</p>	<p>Progress</p> <p>100%</p> <p>100%</p>
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Activities

2.1 Support to the creation of the Pakistan Olive Oil Council (POOC) as a tool in support of the Olive Oil Value Chain.

To surrogate the creation of the POOC, still premature, a pragmatic Olive Stakeholder Group (OSG) was constituted with a bottom-up approach in June 2022, with the following 11 members

representing the following bodies/categories: POD; farmers (1 each from Baluchistan, Khyber-Pakhtunkhwa, and Punjab); Academia; industry/processors; women entrepreneurs in oliviculture; Chambers of Commerce; organizations on communities development; OliveCulture Project; and Pakolive (as the Convenor). Their primary task was drafting a policy for the olive value chain under the guidance of the project.

2.2 Assessing the Skills of the Olive Stakeholder Group

The exercise was conducted in July 2022, led by Dr. Cardone from the headquarters. In parallel, the guidelines for the methodological approach to be adopted for the preparation of the Policy were drafted. The Report of the expert is attached as **ANNEX 5**.

2.3 Training of the members of the Olive Stakeholder Group in Italy

A Study Tour aimed at the enhancement and improvement of the multidisciplinary knowledge of the OSG took place in Italy from 19th to 31st October 2002, meeting with sector stakeholders, policymakers, and the industry, and visiting farms, processors, and cooperatives.

2.4 Drafting of an Action Plan and Policy Recommendations for Holistic Development of the Pakistani Olive Value Chain

The draft **Action Plan and Policy Recommendations for a Holistic Development of the Pakistani Olive Value Chain (AP&PR)** was presented and discussed at a round table organized at the Institute of Regional Study, Islamabad on the 8th of March 2023. The Italian Ambassador, AICS, ministries, and a large and qualified audience of stakeholders attended the event.

The Action Plan was endorsed by the 3rd SC meeting of June 2023 and circulated to the provinces by the MNFS&R. The document is included in **Annex 2 of ANNEX 6** and accessible on the website www.oliveculture.org.

On the grounds of the AP&PR, the MNFS&R then requested CIHEAM Bari to lead the formulation of the **National Olive Value Chain Policy up till 2030, along with the Implementation Strategy and**

Road Map for 2024-2030 (NOVCP). The first draft was discussed in June with the MNFS&R, POD, and Pakolive project.

Based on the observations and suggestions received, the final draft was formally submitted to MNFS&R for further determination. This foresees the document being circulated to the provinces for the provision of the relevant inputs, particularly the current and envisaged investments until 2030.

The preparation of the document was developed through a consultation process with the key institutions and stakeholders. The process was initiated “internally” by involving the PMU and the provincial components of the Pakolive project, and then extended through individual and focus group meetings, round tables, and visits. The meetings held with the Secretaries and Officers of Agriculture Departments of Balochistan, KP, Punjab, and Sindh are worth mentioning.

The NOVCP is the result of the assessments and analysis done on the main critical issues depicting the current state of affairs of the Olive sector in the country, corroborated by the experience acquired from 30 months of field activities by the Project, implemented in close partnerships with the leading institutions, the olive growers, the communities and the social sector.

The document highlights that the vibrant Olive sector needs a lot of concerted efforts to shift from the current “amateurish” approach to an industrial and commercial reality considering the sector's structural evolution. As well as it suggests that the great contribution from the public sector development program and donors that have paved the way for the introduction and promotion of modern olive cultivation shall continue their assistance to refine the development of the Olive Value Chain. However, much better coordination and integration should take place at all levels.

The NOVCP is proposed as a programmatic technical document, containing: the definition of strategic objectives; the identification of possible implementation interventions; and the identification of resources that can be activated. It aims to support the expansion of the existing business by building a solid structure based on the passionate development made in creating the

Olive Oil Value Chain to grow further, enabling all the energies, expertise, and financial resources to integrate on a sustainable basis keeping in view its mission, vision, goals, and objectives.

Based on the assessment of the current institutional framework, the NOVCP defines the following main subjects as recommended steps: (a) restructuring of the Pakistan Oilseed Department, (b) role of the provinces and the research, (c) role of the private sector in olive production, processing, and marketing, elaborating on the individual farmers, associated farmers, and processors, as well as on the mechanism of the Public-Private Partnership (PPP) (d) creation of the Pakistan Olive Oil Council, (e) creation of Consortium/Association for the promotion and management of the Pakolive Brand for oil and olive products. The Draft Legal Act for the constitution of the POOC is attached as **Annex 6 of ANNEX 6**.

As stated by NOVCP, the document is a “work in progress” that needs direct contribution from the leading institutions and provinces for its finalization, allowing the decision-makers to deliberate on shared policies and strategic interventions through a general consultation. The Scaling Up initiative will further accompany the process. The NOVCP document is enclosed at **ANNEX 6**.

As an additional outcome of the Action Plan, the Project assessed a path to ameliorate the poorly managed public olive mills by allowing private companies to engage in the provision of services for farmers within the Public Private Partnership (PPP) framework and accordingly contributed to the process within the MNFS&R and taking part in the meetings with the relevant Federal Authority. The process is still underway, pending preliminary endorsement from some of the provinces.

2.5 Analysis and drafting of a Responsible Participatory Tourism Plan - support with local NGOs.

Within the “olive policy” framework, a *Responsible Participatory Tourism Plan* was prepared through the non-profit organization “Sustainable Tourism Foundation Pakistan” and approved by the 4th SC meeting in March 2023. It is incorporated in the NOVCP as **Annex 11 of ANNEX 6** as well as accessible on the website www.oliveculture.org.

The principles of sustainable and responsible tourism are quite new in Pakistan, although over the last decade have been promoted and gained interest, especially in the youth. Within this framework,

by valorizing the Olive crop as a catalyzer opportunity in enriching the offer of new economic avenues for the rural communities, the environment, culture, and territory have been interconnected to identify “olive oil paths”. The approach was inspired by the successful model adopted in Italy and other Mediterranean countries in promoting cultural, historical, and archaeological values as a key factor for economic development.

The deliverables within the Tourism Plan, which was developed with the involvement of the stakeholders throughout the process, including the organization of a “National Round Table on Olive Oil Tourism” on September 24, 2023, at Kallar Kahar, Pothohar, Punjab, consist of:

- a) An “Inception Plan” presenting an evaluation of high-potential areas for Olive Oil Tourism in Pakistan. Inventory of tourist sites, details of available facilities in the selected areas as well as a list of possible activities for visitors.
- b) The “core document”, composed of (a) an Introduction and background of the OliveCulture Project, (b) an assessment of the tourism potential of selected areas including an inventory of natural and cultural tourist attractions, (c) the current state of facilities and infrastructure at selected sites, (d) SWOT Analysis of the tourism sector within (in the context of) the major olive-growing areas of Pakistan, (e) proposed interventions to improve the facilities for the visitors, (f) development of different packages to promote the Olive Oil Roads linking selected destinations, (g) proposed interventions for capacity building of the local community to manage Olive Oil Tourism in a professional manner, (h) proposed interventions for marketing and promotion to attract the right kind of tourists from domestic and foreign markets, (i) development of guidelines and code of conduct to promote sustainable and responsible tourism, (j) proposed management framework for effective engagement of key stakeholders in different roles, and (k) Monitoring mechanism for impacts of tourism.
- c) An “Action Plan and estimated budget for implementing a Responsible Participatory Tourism Plan” to start Pilot Projects in the short to mid-term in Chakwal and Swat districts.

2.6 Verification of the skills of ministerial bodies, agencies, local certification bodies with a view to enhancing olive production as a source of CO2 absorption

Within the “olive policy”, a Position Paper to *Delineate a Policy Framework on Valorizing Olive Production as a Form of Climate Change Mitigation* was prepared and approved by the 4th SC meeting in March 2023. It is incorporated in the NOVCP as **Annex 10 of ANNEX 6**, as well as accessible on the website www.oliveculture.org.

The world is exploring ways and means to mitigate climate change by promoting the growth of trees and other vegetation. Enhancing carbon stocks in the terrestrial ecosystem through plantations has gained immense importance in recent years. Olive farming is an important source of carbon sequestration and climate change mitigation. Olive trees seize carbon dioxide from the atmosphere and store this carbon in the form of biomass and soil organic carbon. Carbon credits generated from plantations are traded in the world under the voluntary carbon market or compliance market. Substantial revenues can be earned from the sale of carbon credits. Therefore, also olive plantation can be used for carbon credits generation which may become an additional source of revenue for the olive growers.

On the above-mentioned grounds, the Project undertook a study to assess the carbon sequestration potential of olive groves in Pakistan and suggest policy measures for promoting the trading of carbon credits as an additional source of revenue for olive growers. It was done through a pilot field investigation, the first done in the country. The methodology applied for assessing the carbon sequestration potential and carbon footprint of olive farming comprised the following steps: (a) assessment of Carbon Sequestration potential through the above-ground and below-ground biomass of olive trees, (b) assessment of carbon footprint of olive production, determined using the Life Cycle Assessment (LCA) analysis of olive plants from field planting to oil extraction, (c) identification of Priorities of the Government of Pakistan for Carbon Sequestration.

The findings of the field survey indicate that the average carbon sequestration rate is 4.69 tonnes of CO₂ per hectare per year for 4-24 years old olive groves, whereas the total carbon footprint (the

total amount of greenhouse gases generated) of olive farming and oil production was estimated as 0.989 tCO₂eq per year.

On the above basis, the net carbon balance in olive farming on the conditions sampled was worked out to be 3.70 tCO₂eq per ha. This can be further enhanced by adopting the GAP and CSA practices, promoting organic farming, using cover cropping, and incorporating residues of olive pruning into the soil.

The study concludes that promoting olive cultivation for climate change mitigation and carbon trading in Pakistan requires the adoption of a comprehensive policy framework that includes promoting sustainable farming practices, amendment in the carbon trading policy, awareness, and capacity building campaigns, involvement of the private sector, establishing linkages with national and international organizations and development of an effective measurement, reporting and verification (MRV) system. The Scaling Up initiative will undertake the required assistance on the subject.

Result 3: The Pakistani olive value chain improved and characterized on different levels.

Under Result 3 there are two Indicators: the first is related to providing “Nr. 20 new public and private professionals of the supply chain certified to assist single or associated farmers with GAP by the end of the Project”. For this indicator, 125 percent of the target has been achieved as instead of 20 about 25 professionals (as master trainers) have been trained and certified and they have trained about 622 male technicians and 73 female technicians.

The second Indicator under Result 3 is about imparting training to “Nr. 450 Individuals or associated farmers adopting GAP along the supply chain”. Under this indicator, a 220% target has been achieved as instead of 450 individuals GAP practices are being adopted by about 991 farmers. Out of these 991, about 981 are male farmers and 10 are female farmers as cultivation of the olive crop is not a gendered practice. The divulgation was disseminated through theoretical and practical field sessions, seminars, awareness, and technical advice from international experts to all actors of the value chain, and the other stakeholders involved in the initiatives.

The “on-the-job training” benefited from the favorable “work environment” created by the Project, to manage their orchards to guarantee increasing incomes. Inputs and equipment for field activities (harvesting, pruning, etc.) have been gradually adopted, acquiring knowledge on their proper utilization in the various stages of modern agricultural practices.

<p>The activities related to this Result also included repeated training sessions dedicated entirely to the best practices in the processing facilities of the olive mills/processing plants, as well as for table olive, and formulating and disseminating health and hygiene protocols under HACCP Guidelines.</p> <p><u>Baseline data:</u> Absence of federal Labs in pest management, Quality and Sensorial Analysis. GAP are learned from YouTube and absence of procedures all along the value chain</p>	<p><u>Indicators:</u></p> <p>* Nr. 20 new public and private professionals of the supply chain certified to assist single or associated farmers with GAP by the end of the Project</p> <p>Verification Source *The set target for the Project was to train 20 public and private professionals but training was imparted to 25 professionals. The details are available in the beneficiaries' master file.</p> <p>* Nr. 450 Individual or associated farmers adopting GAP along the supply chain</p> <p>Verification Source *The set target for this indicator was imparting training to 450 individuals but Project has trained 991 individuals including 985 males and 6 females. The details are available in the beneficiaries' master file.</p>	<p>Progress</p> <p>125%</p> <p>220%</p>
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Activities

3.1 Analysis of previous Initiatives, bilateral cooperation.

The publication State-of-the-art of Olive Sector in Pakistan: a Review Report was approved by the 2nd SC meeting of November 2022. It is attached as **ANNEX 7** and accessible on the website www.oliveculture.org.

The Report includes an assessment of the following projects: (a) “Promotion of olive cultivation for poverty alleviation” (2012-2016) which launched modern olive cultivation in the country, (b) “Technical Assistance and support to Line Ministries in the agricultural sector with emphasis on Olive production - Afghanistan, Nepal and Pakistan/AFNEPAK), and (c) “Pakolive project”. It also describes activities done on olive varietal tests.

3.2 Molecular and health characterization of major ecotypes in Pakistan

It is highlighted that the activity, per se lengthy due to its particular nature, was heavily delayed at its starting due to procedural hindrances which finally hampered the signature of the MOU with the “Institute of Biotechnology & Genetic Engineering/IBGE”, University of Peshawar, the originally appointed counterpart for the activity.

On April 2023 only was signed the Agreement with the Department of Agriculture, Hazara University, Mansehra (HUM), which was found as an alternative, to carry out the Study “Genetic diversity in wild olive germplasm across Pakistan using genotype by sequencing technique” under the scientific leadership of the University of Bari Aldo Moro and CIHEAM Bari.

The scientific outcomes were set as follows: (i) Generation of information on the diversity of olive germplasm over Pakistan, revealing the important aspects for diseases, insects, and orchard management, (ii) Understanding the potential of wild olives, and identifying the economic prospects, (iii) Comprehension of the origin of olive in comparison with worldwide known diversity. Publication at the international level of the results was also included. Prof. Cinzia Montemurro and Dr. Sajid were the respective scientists nominated by their Universities for the Study.

The collection of wild olive samples started immediately after the initial funds were released by the Project allowing Dr. Sajid to perform the field activities in the remote areas of the provinces. To support the starting of the laboratory activities and to provide capacity building, Prof. Cinzia Montemurro carried out a technical mission in Pakistan from 23 September to 1st October 2023. The Report is attached as **ANNEX 8**.

Although the activity in the collection was progressing well, the constraints assessed at the Manshera laboratory compelled the extraction of the DNA in Italy. Unfortunately, the quality of the DNA, often poor at the origin due to the difficult conservation of the samples under hot temperatures, was revealed to be often not valid once examined in Italy due to deterioration during transport.

Despite the many hurdles, the most expected outcomes were met and the work is still going on in Bari; the results will be communicated during the implementation of the Scaling Up. The outcomes include:

- i. Nos. 722 wild olive samples were collected in the form of dried leaves and 270 fresh leaves covering all the major wild ecological zones with field data by Manshera University.
- ii. The 270 fresh leaves were transferred to the University of Bari for genomic DNA extraction, The work was based on the molecular analysis performed using 11 SSR markers of olive (*Olea europaea*) to assess their varietal identity as members of the species *O. cuspidata* and *O. ferruginea*. For this purpose, following DNA extraction the allelic profiles of the samples were compared to each other, and the molecular profiles of the DiSSPA (Bari University) database including about 800 molecular profiles of Italian, European, and non-European olive cultivars (*O. europaea*) and about 200 olive allelic profiles of Oleaster. Preliminary results of the analysis showed a clear allelic profile for 169 samples, which indicates that the two species are distinct in two groups, that do not separate the Pakistani samples according to their putative species membership. However, the literature suggests that the two species are synonymous, which would confirm the result of the phylogenetic analysis.
- iii. In addition, the allelic profiles of the 169 Pakistani olive samples were compared with the molecular profiles of 174 samples belonging to the Oleaster species and of 182 Italian,

European, and non-European cultivated olive trees (Figure 2). The phylogenetic tree shows two genetic groups: Group A, which includes all Pakistani samples, and Group B, which divides Oleaster from cultivated samples into two separate subgroups (B1 and B2, respectively). This highlights the different genetic basis of the Pakistani samples compared to the Oleaster species.

However, to further clarify the genetic origin of Pakistani wild olive germplasm, the analysis of the remaining samples is under process. In addition, possible clustering of samples by geographical origin will be verified when complete data are available.

- iv. One national and international conference and one workshop were conducted along with regular interaction with various stakeholders. The capacity building was significant.

Besides the work done on the olive wild species, it emerged as a priority to involve the two Universities in analyzing the DNA for two mother blocks established in the past at the BARI Chakwal and Tarnab research institutes, which represented the basis for the development of the local certified nurseries. The analysis was done by the University of Bari and consisted of carrying out the Fingerprinting of genomic DNA of 71 cultivated olive samples by 10 molecular markers and capillary electrophoresis analyses for Bari Chawal.

The analysis conducted in BARI Chakwal on the 71 Pakistani olive samples allowed confirmation of genetic identity or identification of the reference cultivar for 22 genotypes, as well as provided the list of the 71 genotypically characterized olive samples and the genetic information. A similar approach of analysis was applied in Tarnab.

The work done has been shown through tables, which constitute the reference documentation for the Scaling Up project to proceed further with both BARI Chakwal and Tarnab, given several deviations found from the stated varieties. The Reports by Dr. Cinzia Montemurro are attached as **ANNEX 9**.

In conclusion, it may be stated that the expectations for the activity have been partially fulfilled. However, based on the solid work done and elaborations of data that are still in process, the foundation will be carried forward for the Scaling Up.

3.3 Technical assistance and training for sensorial and quality characterization of Olive Oils

Considering the absence of certifiable organoleptic laboratories and sensory rooms in the country as per the International Olive Council (IOC) standard, the first short-term mission from the CIHEAM Bari headquarters was organized, in close consultation with the counterparts, soon after the approval of the Work Plans (April 2022) to design, as per international standards, laboratories and sensory rooms for Olive Oil Quality Analysis. It was done, on a priority basis, for Pakolive, at the premises of the National Agriculture Research Center (NARC) in Islamabad, and for the “Centre of Excellence for Olive Research and Training/CEFORT” at Barani Agriculture Research Institute, Chakwal. The Report and designs of the two experts (Dr. Mondelli and Dr. Trani) are attached as **ANNEX 10**.

To prepare the human resources, training for Nos. 2 Laboratory Technicians on oil quality control and No.1 for panel test was conducted in Italy on May 2023.

However, due to budget constraints from Pakolive, the establishment of both facilities took place only partially. Moreover, to operationalize the “reference” Pakolive laboratory the Project provided, in October 2023, glassware, consumables, reagents, and technical expertise. Dr. Trani guided the procurement, and in November 2023 imparted training, through a short-term mission, on olive oil Quality Analysis.

The training was widened to six laboratory technicians belonging to the provinces and one from the private sector. The sessions focused on performing comprehensive analyses of olive oil samples by testing the acidity, peroxide value, fatty acid composition, and sensory attributes. The technicians trained in Italy participated in the sessions, assisting the Italian expert while acquiring more skills.

The laboratory allows farmers, traders, and consumers to control the oil going to the market and represents the first step in the country's effort to improve the quality of its product through documented evidence. However, it is expected and mandatory that the already planned structures will be established soon as designed, to be fully compliant with international standards.

The Report of Dr. Trani, which includes recommendations for running the laboratory properly and the mandatory rules for the security of the operators, is attached as **ANNEX 11**.

3.4 Technical Training and Good Agricultural Practices (GAP)

Technical Training on Good Agricultural Practices (GAP), and dissemination of protocols for strengthening and improving olive oil production, represented the most significant package of activities done in the field by the Project, as the basis for the development of the olive orchards in an appropriate manner. Accordingly, a series of training sessions were organized and conducted with the support of Italian experts from the headquarters and specialists selected for the specific tasks. A short brief is provided hereunder:

I) Following the olive crop seasonal calendar, in September 2022 was organized a combined short-term mission led by specialists from CIHEAM Bari integrating the expertise of a Senior Agronomist (Dr. Laghezza) and a Plant Pathologist & Entomologist (Dr. Chiot), with following objectives: (a) to assess the state of the art of olive cultivation, including the presence of pests and disease, (b) to carry out the Training Need Assessment of the technicians and farmers in the olive crop, and (c) to impart technical training on the Good Agricultural Practices and sustainable management to local farmers/technicians/extensionists.

The methodology adopted consisted of combining interactive training sessions for Scientists, Technicians, and Extensionists, and then applying with the farmers in the field the knowledge acquired. The Reports of the experts are attached as **ANNEX 12**. It is deemed appropriate to expose some of the significant findings, as they were identified as major needs to be addressed by the Project during its implementation for the improvement of olive cultivation:

- a. The provinces of Balochistan and Khyber Pakhtunkhwa possess extended suitable areas with better natural conditions for the olive crop than the Potohar (Punjab).
- b. The cultivation in Potohar can be profitable but it needs particular care and could be sometimes vulnerable.
- c. Pruning is almost unknown. When it is done, very often it is harmful to the crop because it is done with mistakes. It was discovered that for many farmers reluctance to pruning is simply due

to a general lack of understanding about the benefits, as well as the negative effects of non-pruning.

- d. The lack of pruning is one of the main causes of diseases, mainly in the Pothoar, and induces the yearly alternance of production. In the mature plants, it is now necessary to do a drastic “reform pruning” to restart production.
- e. Irrigation is generally insufficient. However, it was found that often the promotion of olive cultivation in the country is done ambiguously or incorrectly, spreading messages about production that are over-estimated and far from reality. In fact, under the prevailing Pakistani conditions, only limited areas in marginal, wastelands, and rainfed conditions can expect regular good harvesting. To obtain regular good yields, irrigation is required. Thus, in promoting olive cultivation it can be highlighted that Olive is a smart plant, requiring less water, but with the conditionalities mentioned above.
- f. The lack of certified nurseries is a major obstacle in developing the olive sector.
- g. The damages from Anthracnosis (*Colletotrichum gloeosporioides*) are often serious in Potohar, whereas the Psyllids (*Euphyllura olivina*) is widespread but cause limited damages.

II) As the pruning was assessed to be a major subject of the GAP that it is neglected, or unknown, by most of the technicians and by all the farmers, an extensive Training calendar was implemented over 24 days, from the 21st of January to the 12th of February 2023 on “Training on Olive Good Agricultural Practices focusing on Pruning”. The methodology adopted was the same as done in September 2022, consisting of organizing in the provinces, together with Pakolive, interactive sessions for Scientists, Technicians, and Extensionists, and then conducting practical sessions in the fields for the farmers. The activity was supported by the CIHEAM Bari expert Dr. Francesco De Musso and conducted in the three provinces (one week each province), benefiting 799 beneficiaries, from counterparts to farmers. The Report is attached as **Annex 13**

To facilitate the activity and to enhance the impact, a Manual was prepared and made accessible on the website, www.oliveculture.org.

Furthermore, three tutorial videos were prepared during the sessions, related to different types of pruning that olive plants require according to age and conditions, which are on the YouTube channel at <http://www.youtube.com/channel/UCHOt9NxbizkPgMiFz5f2quA>, and also accessible on Facebook and the Project’s website.

III) A second combined mission focused on GAP (Dr. Laghezza) and Nursery (Mr. Cavallo) was organized and implemented from 18th March to 2nd April 2023. The focus on GAP mainly aimed to (i) assess the strengths and weaknesses of each region during the flowering stage of the olive plants, (ii) identify the best combination of varieties, cultural practices, and plant protection programs for the different environmental conditions, (iii) conduct Training sessions on GAP, along with Nurseries activity by Mr. Cavallo, and (iv) design and implement field trials to increase fruit setting as a possible solution to the flower drop. To this end, tests were initiated on foliar applications of seaweed extract and micronutrients in several locations and on different varieties; the Project staff was accordingly trained for the collection of data. The Report of Dr. Laghezza is attached as **ANNEX 14**

Mr. Cavallo's focus was on identifying the critical issues in the olive nursery system and accordingly, impart training. The production procedure and the overall Nursery Certification system were found the main critical issues; accordingly, the recommendations included: (a) Improving varietal registration by easing the process and by involving the provinces, (b) Reviving the GPUs (Germplasm Producing Units) already established in the past (but still not recognized), (c) Expansion of Multiplication Blocks of the GPUs, at least No. 1 per Province, (d) Registration of nurseries, (e) Establishment of Multiplication Blocks at selected nurseries. It is worth mentioning that the recommendations were incorporated into the Scaling Up project, as the actions require years of implementation and a dedicated budget.

The training on GAP for Nursery Management was imparted to Nos. 286 technicians & farmers, focusing on the collection of cuttings, their preparation, types of benches, transplanting the seedlings, and fertilization. The Report is attached as attached as **ANNEX 15**.

In support, a Manual was prepared, available also on the website: www.oliveculture.org. Is attached as **Annex 16**.

As one of the most critical issues was identified in using self-rooted cuttings, which is the most widespread technique, on the advice of the expert the Project manufactured a prototype "Olive Solar Powered Nursery Propagation Bench", movable and portable, which was tested in a private nursery, in Lower Dir, during winter and summer conditions. After several improvements, the prototype proved that under a controlled environment, with constant and even heat distribution, the seedlings' success rate and quality were quite satisfactory. Upon the encouraging result, the Project undertook

the manufacturing of 5 units, distributed in June 2024 to public institutions (3 units) and private farmers (2 units), in the three provinces.

IV) Correlated to the olive crop calendar, a “Training on Olive Good Agricultural Practices focusing on Pruning” was conducted from 27 November to 14 December 2023 in the three provinces, benefiting Nos. 128 technicians and Nos. 350 farmers, with the support of the CIHEAM Bari expert Dr Francesco De Musso.

It is worth mentioning that the expert assessed an improved situation in several orchards compared to the training conducted at the beginning of the year, as well as effective learning by the growers of the theoretical and practical notions and techniques imparted. The Report is attached as **ANNEX 17**.

V) Following the first assessment done in September 2022 on main phytosanitary problems, and the related training imparted, the CIHEAM expert Dr Franco Valentini conducted in the provinces, from 6th to 15th October 2023, an evaluation of the procedures adopted by the phytosanitary laboratories for the diagnosis of the major pathogens of olive growing, as well as the strength and weaknesses of the laboratories. Training was also imparted for Nos. 28 technicians. The report is attached as **ANNEX 18**.

The main subjects identified for capacity building, to be considered by the Scaling Up, are as follows:

- a) (i) insects, (ii) fungi, (iii) bacteria and phytoplasmas, (iv) viruses, and (vi) nematodes.
- b) the field symptoms, with reconnaissance of the main olive plant diseases and evaluation of tests and protocols.
- c) the abiotic diseases of olive trees (cold symptoms, nutritional deficiencies, etc.).

3.5 Training of stakeholders by updated technicians and extensionists

Many technicians and extensionists, trained by the Project from September 2022 onwards, conducted in turn training activities in their pertinent areas under Pakolive. Some of those are listed hereunder:

- “Pruning and training of olive orchard” held at NARC Islamabad, conducted by Ms. Syeda Sana Amir, Scientific Officer, Horticulture Research Institute. The sessions were held at NARC on 23-

01-2024, with Nos 45 participants. She received training from the Project on January 27, 2023, and March 30, 2023, on “GAPs focusing on pruning”.

- “Olive orchard management for pruning, fertilizer, irrigation, pest, and diseases control” conducted by Ms. Dr. Salma, Scientific Officer, Agriculture Department, Muzaffarabad. The sessions were held at Hajera Poonch, AJ&K, on 23-12-2023, with Nos 65 participants. She received the same Project training as Ms. Syeda Sana Amir.
- “Olive plantation, grafting, oil extraction, nursery raising, pruning and harvesting of olive fruit” conducted by Mr. Sheeraz Qamar, Scientific Officer, Pak Olive. The sessions were held at NTHRI Shinkiari, KP, on 16-08-2023, with Nos 28 participants. He received the same Project training as above.

It is worth mentioning that the GAPs progressively entered, through the Project, into field practices also thanks to the information and education divulged through the Technical Manuals (English and Urdu) prepared by the Project. These manuals include recommendations on pest and disease management tailored to each region, as well as guidelines for optimal nutritional and irrigation management, aiding in formulating targeted production guidelines for each area along with appropriate management strategies. They are accessible on the web portal (www.oliveculture.org), namely: (i) Production of olive tree nursery in Pakistan (II) Olive good practices from the field to the table (III) Olive Pests and Diseases (IV) Olive tree Pruning (v) Harvesting of Olive Fruits (VI) Olive Tables.

3.6 Training on Processing Protocols and Hygiene Safety

One of the most impressive results achieved by the country in the development of the olive value chain in the decade is, besides the magnitude of the plantation, the extent of the fleet of olive oil processing units established. In fact, 35 units are operational, as per the list of **Annex 4 of ANNEX 6**. However, it was assessed, as anticipated in paragraph 1.4, the stringent need to provide training to the operators and managers of the olive oil processing units, based on the main gaps found.

I) With reference to paragraph 1.4, Mr. Ugo Ametta and Dr. Matteo Milanese evaluated the technological level of the processing, and the Hygienic-Sanitary procedures applied in olive oil and table olive, and their main gaps. Herewith are listed the main findings regarding the Olive oil:

- a. The olives are usually harvested too late (concerning the ripeness).
- b. The olives should be milled within 24 hours from the harvesting and should not be kept in bags and under heat, but these conditions are rarely fulfilled.
- c. The olives that are brought to the processing plants should be rejected in case they are heavily affected by anthracnose, which is not done.
- d. The hygienic conditions of the processing plants are generally unsatisfactory.
- e. The inadequate cleaning of the equipment from time to time, and at the end of the season, is causing serious problems.
- f. The absence of generators in several plants can't allow regular working, due to the frequent and prolonged blackouts of electricity.
- g. The olive oil is stored by the farmers in abnormal conditions (in plastic, in heat, and sunlight).

Regarding the processing of table olives, when done mechanically such as in ARI Quetta and BARI Chakwal, where identified similar problems. Moreover, the excessive concentration of lye represents the main mistake made in the treatment and curing of table olives.

As a general observation, the post-sale service of the olive mills was found to be very weak, if not absent.

II) Based on the gaps identified and the need assessment, capacity building was provided for all units during both harvesting seasons falling within the Project duration. The 1st year's sessions entitled respectively "Olive Processing Plant Protocols and Hygiene Safety" and "Table Olive and Value Addition Processing Protocols and Hygiene Safety" targeted, as beneficiaries, the managers and operators of machines and value-addition laboratories working at the provincial departments and private sector in Balochistan, KP, and Punjab.

Besides the Training provided on the technicalities of the entire processing of olives, the experts initiated and elaborated with the participants the protocols on hygiene safety and the HACCP on

risk analysis assessments of the structures, transformation processes, and storage. The Reports of the expert's missions' of September 2022 are attached as **Annex 19 and Annex 20**.

- III) The second training course on "Olive Processing Plant Protocols and Hygiene Safety" took place in the provinces from 20th September to 1st October 2023, delivered by the same Mr. Ugo Ametta, to ensure continuity. As previously done, the participants included the managers and operators of the olive mills of the Public Sector working at the provincial departments in Balochistan, KP, and Punjab, as well as the few plants established and run by private entities/ communities.

Besides the Training provided on the technicalities of the entire processing of olives for oil, the expert further explained the protocols on Hygiene Safety and the HACCP. The preparation of the Guidelines, which was initiated during the first round of training in September 2022, was almost completed on the sites, interacting with the staff as the documentation shall be customized.

Then, various contributions from the Project and the headquarters have helped in refining the documentation "Guidelines for Hygiene and Hazards Analysis Critical Control Points-HACCP-Implementation in Olive Oil Mills" which was distributed in May-June 2026. It includes several Annexes that clarify, highlight, and emphasize the overall process and steps to be undertaken, and that constitute the basis for each Mill/Processing Plant/Unit to easily prepare its own HACCP Plan. This was an achievement of utmost importance as the legislation requires that all food processing units implement a documented system of self-control of hygiene using the principles on which the HACCP system is based. The alignment to the legislation may take time and effort under the current common situation of the olive mills in the Country, therefore Scaling Up will support the subsequent steps to be undertaken.

The expert ascertained an overall improvement in the capacity of the operators and managers compared to the previous harvesting season, however, he stated that the level of efficiency and hygienic conditions still needs a lot of improvement. As a new observation, he raised the issue of the pomace, which is not properly managed. During the sessions, he illustrated the Manual prepared by the Project "Olive Wastewater Management" to sensitize on the issue.

A major problem was confirmed consisting of the post-sale service, which is not up to the required standard. Several attempts made by the Project to improve the situation failed, as the company Mian Corporation blamed the managers for not agreeing on a plan of regular maintenance. Throughout the Project, it became evident that the Public Sector couldn't efficiently manage the olive processing units, therefore MNFS&R was supported in undertaking the process of Public Private Partnership (PPP) to involve the private sector, which is underway.

The Report of the expert is attached at **ANNEX 21**. The Guidelines for Hygiene and HACCP implementation in Olive Oil Mill, along with the Annexes (from A to D), are attached at **ANNEX 22**.

Result 4: Women and Youth are engaged in income-generating activities along the olive tree value chain.

Under Result 4, there are three Indicators; the first is that "At least 2 income-generating activities launched along the olive oil chain". In this case, 150 percent of the target has been achieved, as the 26 Olive Business Development Groups (OBDGs) that have been created are successfully running 3 categories of income-generating activities (olive pickle, olive cosmetics, and olive soap).

The second Indicator states: "At least 120 rural women and youth trained". In this case, 335 percent of the target has been achieved, as the number of trained individuals was 402.

The third Indicator is the "No. 1 seminar for the promotion of the olive value chain to the Pakistani diaspora in Italy and other countries".

For this Indicator, 100 percent of the result has been achieved as a two-day seminar was successfully organized in Italy with 20 participants (19 male and 1 female).

<p><i>Baseline data:</i> Small scale pilot initiatives. Value addition products are not respecting the basic sanitary & shelf-life standards.</p>	<p><u>Indicators:</u> * At least 2 income-generating activities launched along the olive oil chain. Verification Source * Three income-generating activities</p>	<p>Progress 150 %</p>
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	<p>have been successfully established (olive pickles, olive soaps, and olive cosmetics) through establishment of 26 OBDGs. The details are available in the beneficiaries database.</p> <p>*At least 120 rural women and youth trained</p> <p>Verification Source</p> <p>*Instead of 120 about 402 beneficiaries have been trained including both rural women and men. The details are available in the beneficiaries database.</p>	<p>335%</p>
	<p>* No. X⁵ seminars for the promotion of the olive value chain to the Pakistani diaspora in Italy and other countries.⁶</p> <p>Verification Source</p> <p>One seminar has been successfully organized in which 18 males and 1 female have participated. Details can be found in Project reports.</p>	<p>100 %</p>

The activity started by conducting numerous meetings with Pakistani organizations and donor agencies at the federal and provincial levels to assess the possible inclusion of women and youth in

⁵ X to be decided with AICS upon the participation of the Pakistan diaspora abroad.

⁶ Variation from the indicator of the Project Document; “No. X *** of initiatives promoted by the Pakistani diaspora in Italy in favor of new income-generating activities” – discussed with AICS on 18 March 2021.

the Olive Value Chain and value addition. In particular, the provincial Rural Support Programmes and the Pakistan Poverty Alleviation Fund (PPAF), as they played a major role in the Italian-financed “Program for Poverty Reduction/PPR based on community development, women, and youth inclusion, closed in 2021. Whereas in Punjab CEFORT/Bari Chakwal took the leading role of catalyser. Several sub-activities were undertaken in sequence to achieve the Result, as follows:

4.1 Participatory analysis of the associations of women and youth engaged in agricultural value addition

A first support mission from the headquarters took place from the 1st to the 13th of October 2022, through which the Gender & Business Expert Ms. Monica Martella identified the opportunities, problems, and needs of the women and youth related to their potential involvement in the olive value chain. The Report is attached as **ANNEX 23**.

A second mission from Ms. Martella (25th November - 5th December 2022) ascertained that the creation of new organizations was not needed as the beneficiaries were already affiliated with communities, but groups would have been more instrumental in the activities than on an individual basis.

Based on the investigations done in October, a questionnaire was distributed to the participants of the Training sessions for the Participatory Rural Appraisal (PRA) organized in the provinces.

From the visits to the Project areas, it emerged the need to create direct links with the potential beneficiaries. At the end of November 2022, it was created the profile of “Women Animators”, with the task of facilitating the identification and involvement of the women and youth willing to participate in the activities. Depending on the partnerships established with the local partner organizations, as facilitators, namely: BRSP (for Balochistan), EPS (for Swat), PODA (for Punjab), and the 3 Local Support Organizations (LSOs) of Lower Dir, the Project signed collaboration agreements for securing the services of the Women Animators, recognizing some allowances and logistic reimbursement. Their activity started in January 2023.

It is worth mentioning that synergies have been proved significant with the outcomes of the Italian-sponsored *Program for Poverty Reduction* (PPR of the PPAF) which has constituted the solid basis for the activities carried out with the communities, young people, and women, in Lower Dir with the LSO. Also, their location in particularly deprived and marginal areas represents a significant contribution to the introduction of olive cultivation in reducing poverty.

4.2 Participatory meetings with existing associations and new groups of women and young people

Through the PRAs, on-site community meetings, and focused group meetings with Women Animators and partner organizations, a Need Assessment Report was finalized to identify the capacity building needed and the preferred categories of income-generating activities, which was the basis for preparing a comprehensive training plan.

It is worth mentioning the proactive role played by the partner organizations engaged, which have been in the field for decades to sensitize and promote the development of the communities, women, and youth. All of them are committed to business development, although problems with marketing and quality of the products such as handicrafts and food items for niche markets have been their main constraints encountered.

The first session of capacity building was held in Islamabad on May 10th & 11th 2024, to familiarize the Women Animators and collaborators with the principles of “Community Mobilization and Basic Business Skills” as the common approach to be adopted for the development of the activities.

4.3 Preliminary economic analysis to evaluate the possibilities of introducing income-generating activities

The preliminary analysis, which was done during the above-mentioned activities, and through the training Need Assessment, pre-identified the main products of interest of the potential beneficiaries along the value chain. As detailed in the Need Assessment Report, the main subjects were pickles, soaps, and cosmetics.

4.4 Selection of groups of young people and women for diversified economic involvement & value addition

During May 2023, a list of 150 beneficiaries (67 Women & 83 Youth, male and female) willing to undertake the training for starting the economic activities, was finalized, based upon pre-defined Selection Criteria. It was however inculcated from the beginning that the activities would be implemented in groups, to make easier and more effective operations at all stages, from the procurement of inputs to the commercialization.

The relevant disaggregated data are as follows:

- The Women (aged 26-40) represent 48% of the total beneficiaries, and the men (aged above 25) represent 1%. According to the selection criteria, only male youth would be included, but in the two cases, social relationships have compelled to include them.
- The Youth (aged 18 -25) represent 26% and 25%, respectively, of the total beneficiaries.
- Cumulatively, Gender represents 74% of the total beneficiaries and Youth 51% of the total beneficiaries.

Therefore, the careful selection has resulted in a proportionate and rational distribution of the beneficiaries in terms of Women, Gender, and Youth.

Regarding Education, the majority of the members have primary and matric levels, followed by FA (Faculty of Arts), middle, and bachelor's degrees. Some have a basic level, and few are illiterate. It is worth recalling that the selection criteria foresee that the beneficiaries shall be able "to read and write" therefore the criteria have been substantially followed.

4.5 Training modules for the value addition and diversified economic activities in the olive value chain.

Based on the identified needs, a series of courses were designed and implemented on "Business Basic and Soft Skills", "Olive Soap and Cosmetic Production" and "Olive Pickles Production". The courses were conducted in the locations between June and September 2023 by local specialists, except the latter, which was done by the Italian expert from CIHEAM Bari, Ms. Emanuela De Iaco Russo.

4.6 Support pilot initiatives with distribution of initial inputs and equipment for the start-up of economic activities based on olive products and by-products

To enable the beneficiaries to prepare their Business Plans, allowing the Project to transfer the inputs for initiating the activity, training in “Business Plan Development” was conducted by a local specialist, having also expertise in community development, who facilitated the process of organizing the beneficiaries in groups. Six model Business Development Plans were prepared by the participants with their extensive efforts: two for Olive Soap, two for Olive Cosmetics, and two for Olive Pickles.

Based on the Business Plans, through a rationalization process that considered the optimization of the labor in the production of soaps and cosmetics, the social links, and the home distances within the hamlets, Nos. 26 Olive Business Development Groups/OBDGs (Nos. 10 Soap, Nos. 06 Cosmetics, and Nos. 10 Pickle) were formally constituted and enabled to receive the inputs from the Project, consisting in equipment, tools, and raw materials.

To facilitate the activity, although the sessions face-to-face were prioritized, to ensure in particular the required follow-up to the entire cycle, six Remote Technical Assistance (RTAs) stations were installed in the premises of the organizations that are collaborating with the Project.

The tangible outcomes of the training included: (i) the members of the OBDGs were acquainted with the key concepts and notions of business planning and prepared the Business Plans, (ii) the OBDGs completed the legal and administrative formalities for their constitution and their agreements with the Project, which was then was in a position to hand over the inputs (equipment, tools, and raw material) by October 2023 directly at the OBDGs’ locations, (iii) The OBDGs started in November 2023 the production, marketing, and selling, therefore they established their business. As per the agreed terms, the OBDGs have opened their Bank Accounts, mainly operated by women, the large majority of the members of the Groups.

The Project was effective in implementing the above-mentioned steps in about a semester, through careful planning and a harmonized organization. It is worth mentioning that the procurement of the specific material for pickles, soaps, and cosmetics was done by involving the Trainers. It was particularly sensitive for soaps and cosmetics, an innovation for everyone! The identification of the

suppliers of raw materials implied a strict checking of the quality and lasting period, particularly for the fragrances.

The production of olive soaps and cosmetics was an innovation in Pakistan at the community level, therefore the process was unknown. However, it has been more difficult to convert the local knowledge in the preparation of pickles, which are known for vegetables and fruits, and olives are mainly limited to research Centers.

The Italian expertise focused on teaching and illustrating two specific products easily adoptable at the household level while eliminating the use of lye:

- (i) “Olive in Brine” as it serves as a natural preservation method for table olives. This product can be consumed directly as a finished product or used as a raw/secondary material for additional processing, such as flavored olives or olives in oil.
- (ii) “Crushed Olives” which is aligned with local ways of preparation and taste, making it well suited to the preferences of the Pakistani palate. Therefore, efforts were directed towards creating materials for distribution to each OBDG, facilitating the commencement of economic activities.

The Report is attached at **ANNEX 24**.

Once the production started and was ready for commercialization, the Project provided support to some OBDGs to showcase their products at the Pak Olive National Gala organized in November 2023 in Islamabad and at various other events. The positive response from the visitors was highly encouraging, as the products prepared by the Groups gained recognition and appreciation. The exposure at these events not only allowed for product visibility but also opened avenues for potential market opportunities. It demonstrated the tangible impact of the Project in not only equipping OBDGs with skills but also in fostering their presence and recognition within the broader community.

Regular counselling and the constant presence of the Animators in their support went in parallel to the monitoring, to ensure that proper management and administration were complied.

Also, to corroborate the knowledge sharing and featuring successful OBDGs by exposing their experiences, from their inception to achieving significant milestones such as production, managing

and operations bank account opening, marketing, sales, and procurement of raw materials for future production the Project organized the “First Knowledge Exchange Session” on 1st February 2024, through RTA.

From the above-mentioned gathering, it emerged the necessity/opportunity to further strengthen the capacity building in the production and commercialization of the soaps and cosmetics, thus the Project organized a “Follow-up training for soap and cosmetics” which was conducted face-to-face in the locations of the OBDGs, from mid to the end of February 2024.

The economic status of the activities is reported at the **ANNEX 25**. It shows the variability of performances among the Groups, which is normal, and the problems in commercialization, which was also expected. The salient features of the Activity were the following on 30th June 2024:

- Equipment and Tools worth Rs. 4,303,919 and Raw materials worth Rs. 6,215,631 were distributed to 150 beneficiaries, aggregated in 26 OBDGs,
- Cash Received against the products sold was Rs. 941,770,
- The value of the Finished Products in stock (calculated at the price of the products sold) was Rs.1,668,720,
- The total value of the stock (Raw Materials and Finished Products) was Rs. 4,795,861.

The 26 Groups earned a collective profit⁷ of Rs 942,770. The average profit earned by a single group is Rs 36,260. The average cash/profit received by a single individual/person was Rs 6,639, however, with significant variations among the Groups, as follows: for olive pickles Rs. 4,054; for olive soaps Rs. 10,954, and olive cosmetics Rs.2,986. Part of the profit has been reinvested from the Groups as foreseen in the Business Plans to carry forward the business.

Considering the short period of business, which is an absolute novelty in the country, the fact that the Groups live in remote rural areas with less access to markets, the social norms and mobility limitations for women and youth, the necessity of fine-tuning the technicalities, and the need to

⁷ The Equipment is not included in the profit calculation as this was supplied for long-term business establishment

better understanding the demand from the consumers, the results are quite promising. The initiative has shown that it can help in increasing overall household income and reducing poverty levels.

Moreover, the activity has achieved values that can't be measured by commercial outputs and incomes, such as the opportunity for women and youth (girls and boys) to start an income-generating activity, to work in groups, to have and manage a bank account, etc, which altogether represent, especially for remote areas, a soft "revolution" that olive can create. The experience acquired may be seen as a learning laboratory and an innovation from the technical, economic, cultural, and social points of view, from which to start a more solid platform. It will be the task of the "Scaling Up" to enhance the level.

4.7 Involvement of the Pakistan Diaspora in the promotion of the Olive value chain

The Activity aimed to involve the Pakistani Diaspora in Italy in supporting the promotion of the Olive Value Chain in Pakistan, given their acquaintance with the use of olive oil and table olive, directly from Italy or on their return to Pakistan.

It was not easy to aggregate the Pakistani community, which is widespread in the territory, for a collective action. Finally, thanks to the AICS Office in Islamabad, a reliable and effective liaison was established with the main representative of the Diaspora, which was conducive to implementing the activity. To achieve this result, a series of activities aimed at increasing the skills of Pakistani youth and women in the economic enhancement and diversification of products and by-products derived from the olive oil value chain (transformation of olive products, such as table olives, soaps, use of by-products, etc.) were carried out. Two Scientific Officer already working in the PSDP Project (Islamabad and Punjab) were included in the project activities. The new skills acquired was integrated with the supply of inputs, allowing the creation of a multilevel network, for the activation of pilot projects in the selected areas through dialogue with the communities and diaspora, creating income-generating activities.

Additionally, the Project organized an "Olive Pruning Techniques Course" in Italy, held on May 8 and 10, 2024, aimed to engage the Pakistani diaspora in Italy in promoting the olive value chain in

Pakistan by equipping participants with practical pruning skills and raising awareness about the industry's importance in their home country. Organized in collaboration with CIHEAM Bari, AICS Islamabad, the Federation of Pakistanis Residing in Italy, and COLDIRETTI Puglia, the course involved 18 participants, including 11 Pakistanis and 7 University of Bari students. The training, conducted at Schinosa Farm in Trani by Prof. Salvatore Camposeo (UniBari) and technician Enzo Petruzzella, included a theoretical session on olive plant biology and pruning principles and a practical fieldwork session in the orchard. Participants, many of whom had agricultural backgrounds, demonstrated enthusiasm and gained valuable skills, addressing a critical labor gap in Puglia's olive industry while reconnecting with their farming heritage. This initiative not only fostered cultural and professional integration but also strengthened collaboration among key stakeholders, paving the way for future projects linking Pakistan's agricultural development with Italy's expertise.

4.8 Support to socio-cultural and environmental initiatives for the enhancement of responsible tourism

The Activity done for the preparation of the “Responsible Participatory Tourism Plan” (2.5) has involved throughout the process a lot of young people, although not in structured workshops. One event, as reported, has been held with the stakeholders in a formal “Round Table”.

Result 5: Pakistani society is committed in promoting olive culture

Under this Result there are three Indicators; the first states: “An adequate national holistic communication and promotion strategy of the Pakistani olive oil chain framed by the end of the Project”. For this Indicator, 100 percent of the target has been achieved.

The second Indicator is that “ Nr. 1,000 farmers, producer associations, the private sector, and consumers use the holistic portal and the Places of OliveCulture as platforms for exchanging knowledge on an international scale”. Of this Indicator, about 322% of the target has been achieved. As for the set target, 2,028 visitors kept following the Portal, whereas 3,217 resources were downloaded as manuals and guidelines benefiting from the information and initiatives.

The third Indicator is about “Nr. 2,000 Civil society, consumers & tourists involved in events through the information and promotion of the OliveCulture Places”.⁸ For this Indicator, 350% of the target has been achieved, as about 7000 individuals benefited.

Awareness and dissemination of information on the quality of local olive oil, with related health, nutritional, and social benefits, are the basis for creating a new product in the market, and for ensuring full support at any level of the value chain from farmers to consumers. The impact of the promotional campaigns and the enhancement of the products supported by reliable quality data has convinced the stakeholders that quality and price claims are based on objective parameters. This has also significantly contributed to an increased interest at the market level.

The progress against the set indicators is presented in below Table

	<u>Indicators:</u>	Progress
Baseline data: Only Primary promotion strategy. Nr. 202 Visitors in the last three months on “PakOlive” ⁹ Website.	* An adequate national holistic communication and promotion strategy of the Pakistani olive oil chain framed. Verification Source *Communication and promotion strategy successfully drafted. Approved by AICS.	100%
	* Nr. 1,000 farmers, producer associations, the private sector, and consumers use the holistic portal and the Places of OliveCulture as platforms for exchanging knowledge on an international scale. Verification Source 3217 individuals and producers, private sector, and consumers are using the	322%

⁸ Numbers were decided throughout the Inception Phase.

⁹ <http://pakolive.com>

	<p>private portal. The Facebook followers are more than 43000.</p> <p>* Nr. 2,000 Civil society, consumers & tourists involved in events through the information and promotion of the OliveCulture Places. ¹⁰</p> <p>Verification Source</p> <p>*More than 7000 civil society, consumers and tourists have benefited from the different events organized during the Project. Visual, attendance sheet, Project reports.</p>	350%
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Activities

5.1 Update of the national market analysis on olive oil

The Project has conducted, jointly with the International Trade Centre (ITC) a Pakistan Market Olives Study. It was launched on 28th June 2024 in Islamabad. The function was attended by the Secretary MNFS&R, the EU Representative, the Italian Embassy represented by the Director of the Italian Trade Agency, the AICS Office, the representatives of various ministries, some growers and traders, and the media. On the occasion, the Project organized the participation of some of the supported OBDGs with their products of olive value addition, which were highly appreciated.

The Study was jointly financed, a company was hired to conduct the surveys, and then the document was elaborated by the ITC headquarters, in close consultation with the Project. CIHEAM Bari experts were also involved from time to time.

During July and August 2023, 546 Pakistani consumers were surveyed, along with 60 retailers and six importers/distributors, to map the current landscape of the olive sector The Study delineates the

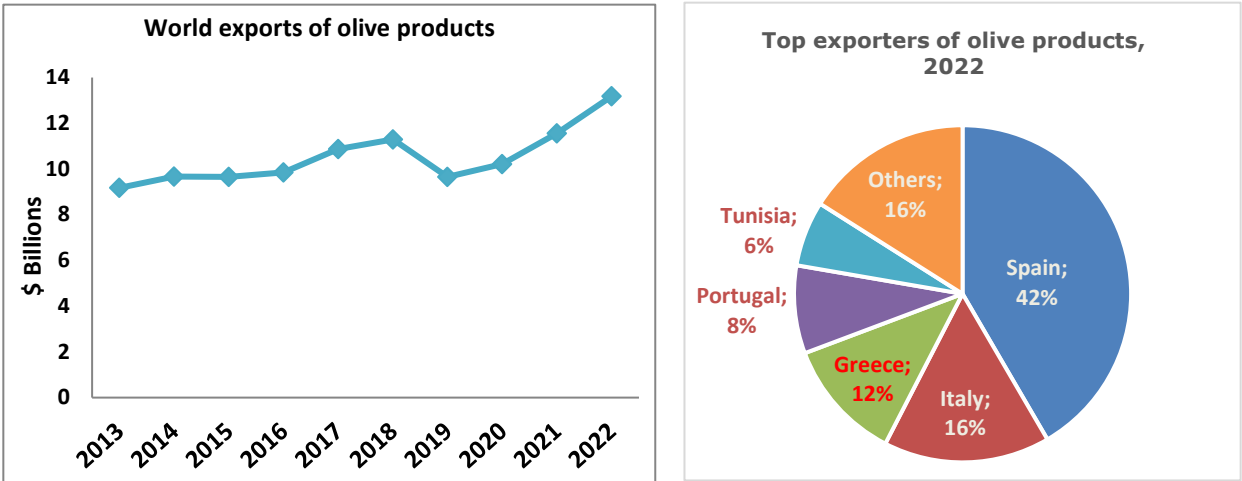
¹⁰ Numbers decided throughout the Inception Phase.

consumption patterns, evaluates the present trends, and identifies future growth opportunities. Additionally, it has identified the market-related challenges and opportunities within the olive products value chain.

The findings of the study will further encourage the OliveCulture Scale Up and stakeholders to pursue the establishment of an effective olive value chain. Salient features include:

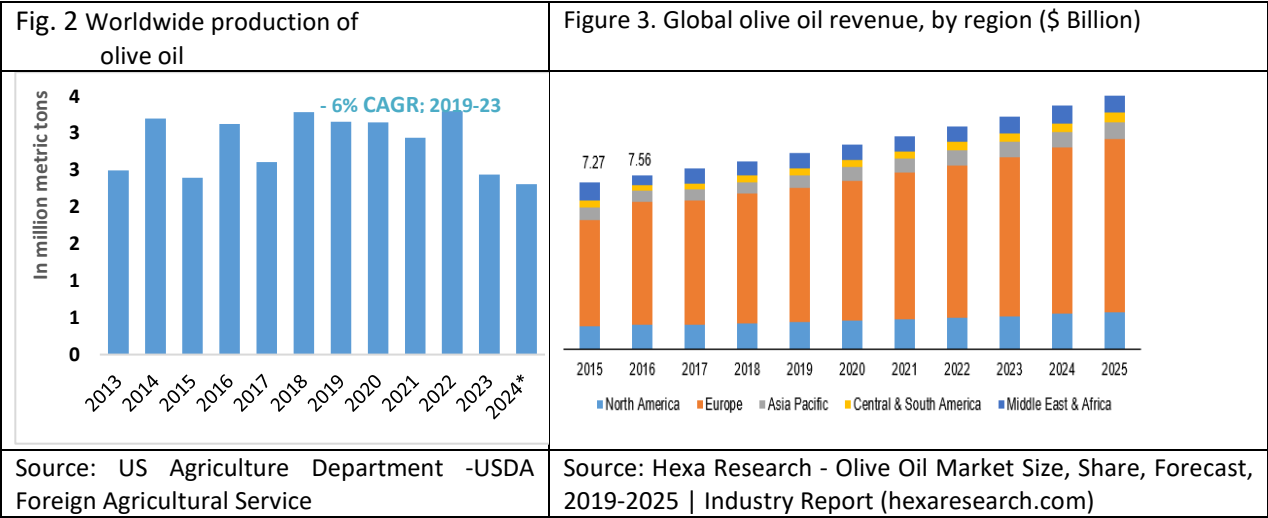
- i. The global export of olive products is currently experiencing robust growth, fuelled by several key factors such as the health benefits of olive oil, the influence of the Mediterranean diet, and its increased use in the pharmaceutical and beauty industries. Extra virgin and virgin olive oil constitute 60% of the market's focus, with table olives making up another 18%. Furthermore, global exports of olive oil have grown by 5% in the last decade, while table olives have seen a 3% increase, indicating an expanding global demand. The export market reached a value of \$13.2 billion in 2022, showcasing a growth of 4% (CAGR) over the last decade (ITC Trade Map, 2022). The majority of olive cultivation and oil production are concentrated in the Mediterranean region, where the European Union accounts for 80% of the global output. Beyond the EU, Tunisia, Turkey, Syria, and Morocco are significant producers. Both export and production by countries are depicted in below Figure 1.

Figure -1- Global export trends of olive products and countries of production



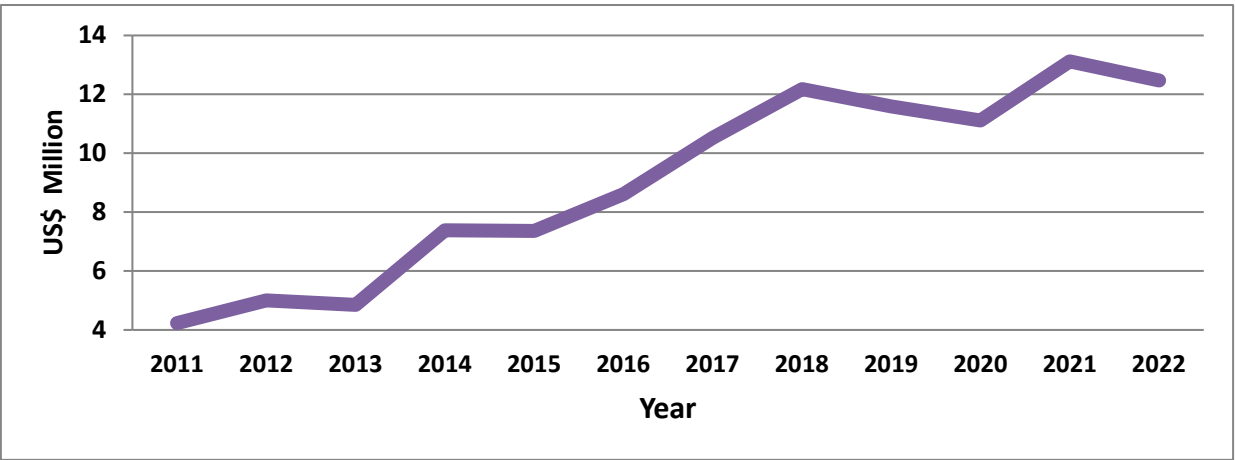
- ii. In 2023, the global production of olive oil was around 2.4 million tonnes with a modest contraction with a 6% compound annual growth rate (CAGR) declining over the past five years

(Figure 2). This downturn can be attributed to the disruptive impact of the COVID-19 pandemic, as well as climatic adversities such as extreme heatwaves and droughts. Despite facing these challenges, market revenue and export trends are a testament to the resilience and dynamic adaptability of the global olive oil market (Figure 3), as per ITC elaboration on Calculations based on the UN COMTRADE and ITC statistics

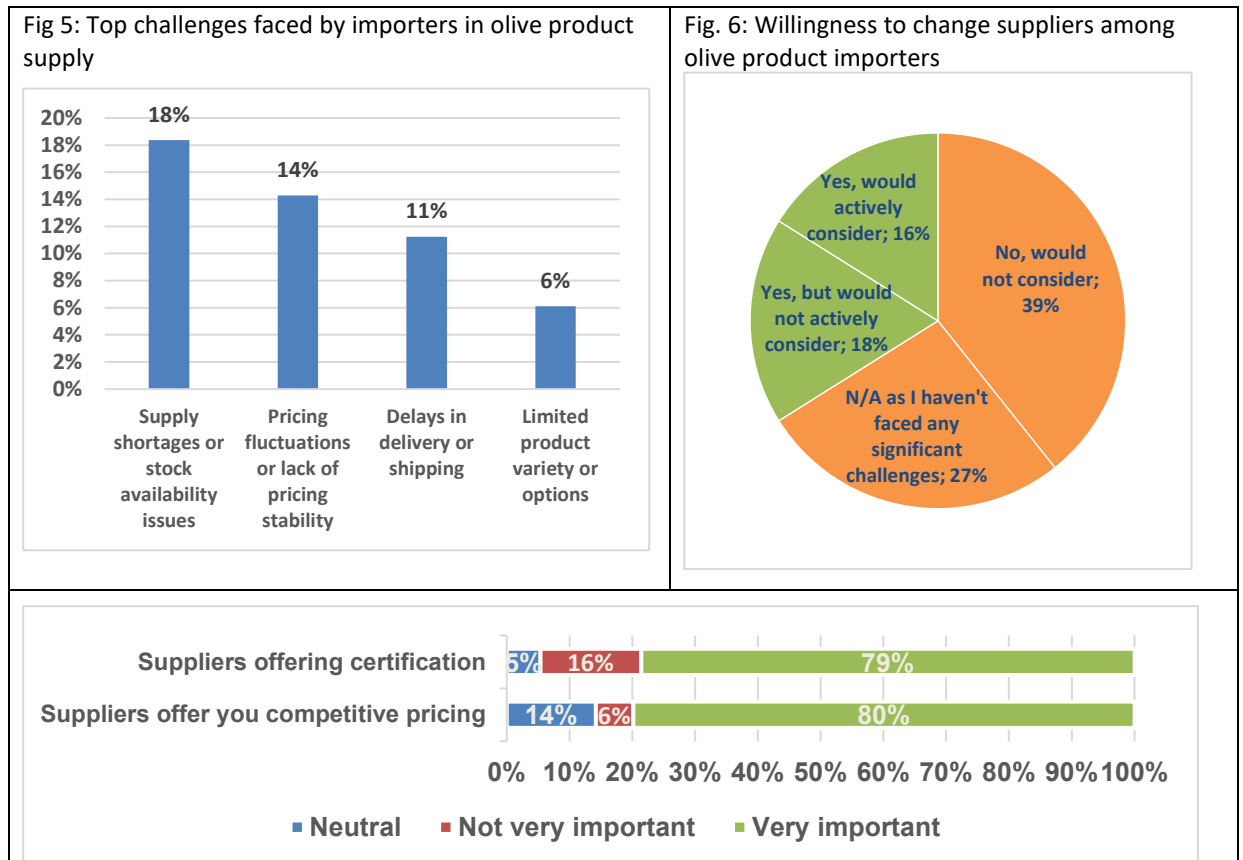


iii. In this context, Pakistan's olive industry is at a crucial point, with potential for significant growth given the global market dynamics and evolving domestic consumer preferences. The trend of Pakistan's import of virgin olive oil (HS Code 150910) for the past 12 years; this dependency is illustrated by a steady increase in olive oil imports, which have recorded an annual growth rate of 12% over the last decade is depicted in the following Figure 4.

Figure 4 Import of olive virgin oil in Pakistan



- iv. As the local production of olive products is still modest, the reliance on imports to satisfy consumer needs. Despite the hurdles on imports, 39% of importers would not contemplate changing their suppliers, and 27% find such considerations inapplicable due to a lack of significant challenges. Yet, a combined 34% of the market is open to new suppliers, actively or passively, highlighting an opportunity for local suppliers to present themselves as viable alternatives by tackling the specific challenges the importers face (Figures 5 & 6).



- v. The Study has provided significant insights into consumer behaviours, such as the willingness to pay premium prices for high-quality olive oil. A substantial 74% of the consumers expressed a preference for imported olive products over local ones, highlighting the perception that imported goods offer superior flavour and variety, but above all the lack of quality certifications on local products has a significant negative impact. This indicates a substantial potential for growth in the local olive product market. However, to tap into this potential, the challenges of the need for improved processing efficiency, standardization, and quality certifications for local

products must be addressed. A key aspect is also to promote local consumption by raising awareness about the health benefits of olive oil through targeted marketing campaigns. These targeted efforts are crucial for driving economic growth and advancing sustainable agricultural practices, thereby setting a solid foundation for the substantial growth of Pakistan's olive sector.

- vi. The survey has also analysed the specific subject “Opportunities for the local market to replace the imports” from the commercial point of view. Significant findings are the following:
- The majority of olive product retailers source their inventory regularly, presenting a considerable challenge to local producers striving to establish dependable supply chains and customer loyalty to compete with these imports. According to the survey, 50% of retailers purchase imported olive products from their distributors every week, while 38% place orders monthly, reflecting a strong dependency on imported goods. In contrast, a marginal 4% make purchases only occasionally throughout the year.
 - This pattern suggests that the majority of retailers maintain a steady stream of imported olive goods, leaving limited room for local products. However, even though 68% of retailers report high satisfaction with their current imported supplies, there remains a significant 18% of retailers who are very dissatisfied, signaling an opening for local suppliers to potentially gain market share by targeting these discontented retailers.
 - The data indicates a clear preference among retailers for key business strategies. A substantial 80% rate of competitive pricing is a critical factor when sourcing imported olive products, implying that local suppliers must offer attractive pricing to make significant inroads into the market.
 - Concurrently, the retailers, who are acutely aware of market dynamics, consider certifications vital, with 79% indicating their importance in the selection of imported olive products. These certifications are a cornerstone in their strategy, potentially used to justify premium pricing as they assure consumers of product quality and origin.
 - By acquiring certifications, local suppliers can not only meet retailer expectations but also take on the role of educators to elevate consumer appreciation for the high-quality standards of local olive products. In doing so, they may bridge the gap between the factors influencing retailer stocking decisions and the current consumer understanding of product quality.

- vii. The Study suggests that the global increase in olive consumption presents a unique opportunity for Pakistan. Domestic consumption is on an upward trajectory, reflecting a growing appreciation and demand for olive products within the country, but considering the burgeoning global demand for olive oil, there also exists a significant opportunity to tap into international markets through exports. However, the current production capacity of local olive oil falls short of substantially reducing the nation's reliance on imported edible oils. This gap between local production and the potential to meet both domestic and international demand underscores the need to mobilize private sector investment. It is the view of ITC that bringing foreign olive oil brands into the Pakistani market partnerships with foreign investments could not only enhance the variety and quality of olive products available domestically but also bolster Pakistan's position as a player in the global olive oil market. The Market Study is attached as **ANNEX 26**.

5.2 Awareness-raising campaigns on the use of quality olive oil

Following the approval of the Visibility Plan by AICS Islamabad, it became evident that a more robust and professional approach was required to effectively implement Communication, Dissemination, and Promotion campaigns. Consequently, a specialized firm, TCM, was hired in January 2023 to lead a comprehensive, full-scale communication initiative. The primary aim of these campaigns was to inspire individuals to actively participate in the olive oil value chain, fostering a deeper connection between consumers and producers while promoting the cultural and economic significance of olive cultivation. TCM developed and executed a dynamic social media strategy that leveraged the power of multiple platforms to reach a diverse audience, ensuring broad engagement and interaction. These efforts included creating visually compelling and informative content, engaging storytelling that highlighted the journey of olives from farm to table, and showcasing the environmental, health, and economic benefits of olive oil. By targeting both urban and rural populations, the campaigns succeeded in raising awareness among consumers, encouraging them to make informed choices and support sustainable agriculture. The initiative also amplified the visibility of key project activities and strengthened the perception of olive oil as a valuable and integral part of local and international markets.

5.2.1 Festivals & Events

Festivals

The two Festivals/Galas organized by the Project were pivotal in raising awareness and disseminating information on the quality of local olive oil, with related health, nutritional, and social benefits, and in promoting the olive value-added products and by-products from farmers to consumers. The gatherings were an opportunity to showcase the status of the rising olive sectors through the participation of farmers, retailers, institutions, and NGOs through stalls, which displayed the olive value-added products along with specialized olive field equipment such as pre-post harvesting & pruning kits.

The Galas also provided a platform for businesses, youth, women, and entrepreneurs to enter the economic and productive aspects of the olive value chain. School teachers and students were also enthusiastic, as it was an innovation for them in their curricula.

Olive Oil tasting at the Project stall represented a unique experience for the visitors (about 1,500 tested the oil) showing a keen interest in the consumption of olive oil after having the nutritional information and health benefits.

- i. The “Olive Gala” was co-organized with the Pakolive project and provincial authorities on 11th March 2023 at the Research Station of Tarnab, Peshawar. It represented the first-ever event held in Khyber Pakhtunkhwa in the olive sector, in which 27 stalls were displayed. It was honored by the presence of the Khyber-Pakhtunkhwa Authorities: the Governor, the Ministers for Agriculture, Planning & Development, and Public Health, the Parliamentarians and dignitaries from various departments, and the Vice Chancellors of Universities.

Over 1000 participants attended the event, which got massive coverage on print, electronic, and social media. About 8 TV channels broadcasted the Olive Gala packages for 4-5 minutes on the same day. Facebook page reach was 1,793,809 and Facebook engagement was 1.2 K; Instagram reach was 181,687; it was the trending top on Twitter on the event day, as well as the influencers

contributed to enhancing the audience. It is worth mentioning that no foreigners could attend the event due to security concerns.

Pro-active participation in the “Olive Festival” held at Bari Chakwal Punjab, on March 18-19, 2023. The event is a yearly routine practice organized for a decade.

- ii. The “Pak Olive National Gala” was co-organized with the Pakolive project at F-9 Park, Islamabad on November 25th and 26th, 2023, in which 55 stalls were displayed. It was honored by the presence of Dr. Kausar Abdullah Malik, Federal Minister, MNFS&R; by the Italian Embassy, represented by the Director of the Italian Trade Agency, and by the Director of the AICS Office in Pakistan. Consumers, farmers, businesses, entrepreneurs, service providers, support institutions, investors, youth, rural women, NGOs, and civil society were the main categories of visitors, estimated at 7,000 persons.

The event included several significant moments such as:

- The launch of the PakOlive” Brand. It represented the culmination of the actions proposed by the Project with the intent to help consumers purchase olive oil produced in Pakistan of certified quality. Also, it contributed to raising awareness among consumers about the health benefits of olive oil consumption and it is a step towards the creation of the Consortium/Association previously mentioned.
- A competition was organized among the exhibitors for awareness of Olive Oil Quality; awards were given to the top 20 progressive olive farmers, women entrepreneurs, best packaging & bottling, value-added products, and organizations for olive promotion.
- The launch of the Urdu book written by Dr. Faiyaz Alam and Shabbir Somroo on the history of olive development in the Country.

- The celebration of the “World Olive Three Day” day, concluded with a Walk involving the organizers, students, women, youth, farmers, institutions, and other olive value chain stakeholders.

Events

- i. The Project co-organized the “National Round Table on Olive Oil Tourism” held on 24th September 2023, at Kallar Kahar, Pothoar, Punjab with the Sustainable Tourism Foundation Pakistan (STFP), and the involvement of Agri-Tourism Corporation, TDCP, NRSP, CEFORT - BARI Chakwal, and Olive Foundation. It was instrumental in the preparation of the “Responsible Participatory Tourism Plan”.
- ii. The Project contributed to the organization of the “16th Annual Rural Women Leadership Conference” held in Islamabad on 15-17 October 2023 and managed by PODA (Potohar Organization for Development Advocacy), with the participation of about 1500 participants coming from 141 districts from all the provinces. During the event, the Project co-chaired the session on “*Asserting Rural Women’s Leadership for Food, Nutrition, Population, and Climate Change Adaptation Decision-Making*” and shared insights about the Project and the significance of olives in women's nutrition. The Project displayed the stall where it showcased olive-based products like soap, serums, cosmetics, and olive pickles.
- iii. The Project participated at the Annual Charity Bazaar at the Pakistan Ministry of Foreign Affairs held on November 2023. The Project, hosted by the stall of the Italian Embassy, displayed olive oil value-added products and by-products of two OBDGs.
- iv. The Project participated in the Italian Cuisine Week organized by the Italian Embassy in Islamabad in November 2023, thrilling the audience with a CIHEAM Bari professional “oil taster” illustrating the characteristics and quality of the olive oil. The display and supply of the branded “PakOlive” attracted also great attention.
- v. The Project participated in the Euro Village Pakistan 2024 at Jinnah Convention Centre, Islamabad in February 2024, along with the Italian Embassy and AICS Office. It was a celebration

of European culture, unity, diversity, and traditions brought to the heart of Islamabad, which provided an occasion for promoting olive cultivation. HE the Italian Ambassador gave away the olive plants to the winners of the lottery organized. An educational olive oil tasting organized at the stall attracted many visitors

5.2.2. Social media

- The OliveCulture Portal is successfully facilitating the farmers, technicians, producers, associations, private sector, and consumers to be educated and informed through the publications, research manuals, and an interactive olive map published by the Project. A total of 2,028 visitors kept following the Portal, whereas 3,217 resources were downloaded as manuals and guidelines. The Portal is a centralized hub for olive enthusiasts, industry professionals, and consumers interested in learning more about olives, olive oil, and related products providing technical information through the manuals for Olive Good Agronomic Practice (English and Urdu), health benefits, the latest trends in the olive industry, and informative blogs.

Awareness-raising and nutritional campaigns

- A total of 157 campaigns were conducted through the Project's social media pages and OliveCulture YouTube. It is worth mentioning the additional 7 campaigns conducted after the cooking lessons imparted by the CIHEAM Bari cooking expert Ms. Lela Deiaco Russo in February 2023.
- 15 campaigns were conducted through the Project's social media pages and OliveCulture YouTube channel by involving chefs of cuisine, doctors, and nutritionists, who educated the consumers on olive utilization and promoted the benefits of olive oil in daily health care.
- 7 campaigns were conducted in 2024 through the Project's social media pages, which included quizzes related to olive farming, pruning, and olive oil health benefits.
- 12 campaigns were conducted regarding the training of women and youth, and their involvement in income-generating activities by aggregation in Olive Business Development Groups (OBDGs). People became aware of the olive value-added products and were motivated

to learn about the production of olive Soaps, Cosmetics, and Pickles. The campaigns were done through the Project's social media pages and YouTube channel.

These campaigns garnered a collective “reach” of 6,364,716 viewers and sparked an impressive “engagement” of 16,679,452.

- Facebook serves as the Project's primary platform, with showcases about the beauty of olive groves, training, and technical assistance to farmers, technicians, and olive value chain actors, promoting the Olive oil value chain and olives products and by-products to the audience, through captivating photographs and immersive videos. The Project has created a thriving community where olive enthusiasts and environmentally conscious individuals come together to share inspiring stories and videos related to OliveCulture. With regular updates and Posts, the Project has encouraged followers to participate in virtual events, such as live Q&A sessions with experts in the field, fostering a sense of connection and knowledge-sharing. Followers are transported to picturesque landscapes, where they can almost smell the fragrant olive trees and feel the sun's warmth. Each image has been carefully curated to highlight the Project's commitment to promoting the Olive oil value chain in Pakistan, emphasizing the importance of preserving the environment while cultivating olives. The “reach” of the Facebook page till June 2024 was 5.9M (5.9 million) and the “engagement” was 59.5K (59,500).
- Instagram. The Project's Instagram presence has been influential, utilizing concise yet impactful messages to raise awareness about the Project's mission. The Project encouraged active participation from its followers, fostering a sense of community and promoting the exchange of ideas. The Instagram’s “reach” was 700.8K (700,800) till June 2024.
- Twitter. Through engaging tweets and retweets of CIHEAM Bari, followers were informed about the latest advancements in sustainable olive farming techniques. Olive Festivals and promotional events remained trending top on Twitter with the hashtag #OliveGala 2023 on March 11, 2023, a total “reach” of 1.8M people with 705 Tweets, and #PakOliveNational Gala on November 25-26, 2023, a total “reach” of 844, 234 people with 241 tweets.

- Influencer Marketing helped in reaching a broader audience and establishing a presence of the Project in Pakistan. Influencers from KP and Islamabad participated in the Olive festivals and events and 10,185,000 viewers were recorded through their event's live-streaming, reels, and stories on Instagram and Facebook pages.

5.2.4 Statistical analytical view of Olive Culture social media platform till June 2024

Social-Media Overview		Twitter Trending		Influencer Marketing	
		Social Media Audience	Hashtag:		
Posts	605		#OliveCulture 2023		
Reach	6.6M	Facebook 43,864	Gala Tarnab -	Impressions	83K
Engagement	59.5K	Followers	Peshawar	Reach	
Total Views	6,659,500		Time: 12:30 PM	10,185,000	
		Instagram 357 Followers	Sustained: 3 hours	Likes	76K
			Panel: 1 st Position	Story Views	1.1M
		Twitter 271 Followers	Video Reels 26 Posted		
			Impressions 2.8M		
		YouTube Subscribers 274	Reach 1.8 M		
			Total Tweets 705		

5.3 Strengthening and development of the "PAKOLIVE" brand and drafting the national promotion strategy

Initial steps were taken in coordination with Pakolive and the POD, which registered the Brand under the Intellectual Property Organization (IPO) in December 2020, creating links with the Ministry of Commerce to understand better the legislative framework and the process to be undertaken to manage the Brand operationally.

Then, a short-term mission from the headquarters conducted by Dr. Carmelo Sigliuzzo was instrumental in framing and structuring an exhaustive proposal about the creation of a Consortium/Association that would manage the Brand, once constituted in legal and institutional terms as suggested. Within the period from 14th to 29th October 2023, the Project and the expert

held a series of meetings, including the Secretary of the MNFS&R (at the beginning, and end of the stay); the Director of AICS Islamabad; the Director of the Italian Trade Agency (ITA) in Pakistan; the Executive Director, Ministry of Commerce; the CEO of Kahity Technologies; the CEO and manager of Mian Corporation, the managers of Pakolive, the organizers of the Farmer's Market of Islamabad; and prominent olive growers, in the field. The Report of the expert is attached as **ANNEX 27**.

The proposal was prepared considering similar schemes adopted in the Mediterranean and included: (i) the Legal Act (ii) the Bylaws, of the Consortium/Association for the protection and enhancement of olives and olive oils produced under the "PakOlive" brand, and (iii) the Regulation of the use of the Brand "PakOlive". The documents are attached as **Annex 9 of ANNEX 6**.

The MNFS&R manifested its strong will to adopt the scheme, and the Project was proactive in supporting the process. Preliminary meetings were held with the Security and Exchange Commission of Pakistan, the Ministry of Commerce, and some other relevant organizations. The initial most complex hindrance was represented by the legal and institutional aspects regarding the Legal Act, which were not solved as desired. Over time, the matter became progressively linked to the Olive Sector Policy under preparation and the proposed scheme was included in the draft Policy.

5.4 Promotion of the products of the value chain in Pakistan and abroad.

As for abroad, during the first week of October 2023, significant progress was taken in fostering collaboration between Pakistan and Italy on the promotion of the value chain, where CIHEAM Bari invited the MNFS&R, EAD, Ministry of Commerce, Olive Key stakeholders, and farmers to participate in AGRILEVANTE, an international exhibition held in Bari, Italy, focusing on agricultural machinery, equipment, and technologies.

The participation of major stakeholders, including the Federal Secretary of the MNFS&R, dignitaries of EAD, and the Pakistani Embassy in Rome, marked a pivotal moment in enhancing multilateral cooperation. At Agrilevante, discussions centered on leveraging the expertise and resources of FederUnacoma, the Italian association representing manufacturers of agricultural machinery and Host of the event, to support the mechanization process in Pakistan. This partnership holds promise for enhancing agricultural productivity and efficiency in Pakistan.

Furthermore, dialogue between the Italian Trade Agency and ministerial dignitaries from Pakistan underscored the commitment to strengthening bilateral ties and exploring avenues for cooperation in the agricultural sector. The delegation's involvement in Agrilevante was complemented by technical visits to prominent olive producers, processors, and technology producers in the Puglia region of Italy. These visits provided valuable insights into the organization of the olive value chain in Italy, facilitating knowledge exchange and capacity-building efforts. Despite challenges such as the inability of Pakistani farmers and producers to participate in the fair due to restrictions on Visas, efforts to facilitate collaboration and knowledge exchange have been the pivotal outcome of the week.

As for Pakistan, the progress mentioned in Activity 5.2 underlines the continued effort done by the Project in promoting the olive value chain.

5.5 Creation of a unique OliveCulture Portal in association with the existing PakOlive brand.

The Website/OliveCulture Portal represents the core holistic mechanism of knowledge and capacity building of the supply chain players. It has been mentioned throughout the document that manuals, as well as tutorial support, are inserted in Portal which constitutes a rich source of information and education. Regarding the association with PakOlive, collaboration was always maintained, but it was decided to keep two separate websites.

5.6 Realization of networking activities national and international through thematic workshops

Most of the events mentioned in point 5.2 have represented the Project's multifunctional values that go beyond their respective primary objective, having generated great opportunities and avenues of networking.

5.7 Olive Culture Places promotion and valorization campaigns

The outcomes of the “*Responsible Participatory Tourism Plan*” will generate interest and promotion of the “Olive Culture Places”.