





FOOD AND AGRIBUSINESS SECTOR IN ARMENIA

MISSION

SERVE AS AN INTERNATIONAL CENTER OF EXCELLENCE TO CREATE FOOD AND AGRIBUSINESS LEADERS THROUGH STATE-OF-THE-ART EDUCATION PROGRAMS AND CUTTING-EDGE RESEARCH





JOHN P. NICHOLS, PhD

CHAIRMAN, ICARE FOUNDATION BOARD OF TRUSTEES

PROFESSOR EMERITUS TEXAS A&M UNIVERSITY

Access to adequate and safe food is a top priority for all governments. The assurance of an efficient and productive food and agriculture industry is the core responsibility of farmers, agribusinesses, and governments across the globe. The challenge of developing and maintaining access to water, land, financing, and other inputs is ever present. Geographic distribution of production does not always match the food demands of population growth thus requiring well-developed marketing channels. And near the top of any list of challenges is that of attracting and developing the talent so important to guiding investment, operational management, and policy development in the food and agriculture sector.

The International Center for Agribusiness Research and Education (ICARE) was created for the purpose of fostering a new kind of educational and research environment with a focus on studies of business and applied economics. Its mission is to be an internation-

al center of excellence offering the highest quality education programs so that students can assume leadership roles in food, agribusiness and other industries. ICARE brings a proven global model of teaching and research to local applications in Armenia and the Caucasus region. With established professional and institutional links across Europe and North America, ICARE has been able to foster student-centered teaching approaches that are now widely recognized as producing graduates who are job-ready when they enter the workforce.

I invite you to examine the many success stories described in this annual report. You will find at ICARE and its Centers a commitment to build on the many successes of the past decade. It is a commitment we take very seriously and invite you to join in this effort.



VARDAN URUTYAN, PhD

DIRECTOR ICARE FOUNDATION

ADJUNCT ASSOCIATE PROFESSOR TEXAS A&M UNIVERSITY 2015 was a year of multiple anniversaries for ICARE Foundation. We celebrated the 15th Anniversary of Agribusiness Teaching Center (ATC), the 10th Anniversary of ICARE, the 5th Anniversary of the ATC MAB Program, and the 1st Anniversary of our EVN Wine Academy. This event was a wonderful opportunity to reflect on the past and evaluate the groundwork we have laid for gaining today's tangible results. We are grateful to all our partners, benefactors, staff and faculty who were with us during these years, believing in our vision for the future and supporting our mission.

As an educational institution we continue focusing on areas of activity that best serve our students' needs and the demands of the market. Our goal is to provide students with an educational experience which prepares them to be enterprising thinkers and dynamic individuals, not only in the food and agribusiness sector, but in anything they choose to take on. Over 450 graduates of the Undergraduate (UAB) and Master's (MAB) programs from Armenia and Georgia are currently employed in more than 300 companies in agribusiness, finance, consulting, educational institutions, government agencies, and non-government organizations in Armenia and abroad. Equipped with experience-based knowledge, professionalism and the ability to perform a mission with honor, our graduates act as creative thinkers and leaders in the industry, capable of applying their skills to solve problems.

The local wine industry has been growing dynamically in recent years and showed great demand for highly qualified winemakers. The establishment of the EVN Wine Academy with its Enology and Wine Business program and the establishment of the Wine Laboratory were crucial steps in Armenian agribusiness education. Today, wine enthusiasts and industry professionals from Armenia and neighboring countries have an opportunity to take EVN courses according to their preferences and interests.

ATC is moving forward to better meet contemporary educational demands of these uneasy economic times and to provide deserving young men and women with unique educational opportunities. The uniqueness of ATC is not only its western-style classroom teaching methods, but also the internships, field visits and occasional involvement in ICARE research projects that result in a productive synergy of education and research. Over the years we have implemented 55 research projects with our local and international partners for many hundreds of beneficiaries among which are farmer groups, agribusinesses, rural communities, and the agricultural education institutions in Armenia.

We work continually to update our curricula, develop our faculty and staff, and modernize our facilities. ICARE utilizes the current technologies in education that exist in the most advanced programs globally. Towards that goal, we launched ATC-100 fundraising campaign in December, 2015, to renovate ATC's student computer lab.

The contribution towards a quality education is the single most important gift one can give. We invite everyone to join the efforts of the visionary individuals and organizations who share our passion for making a change in Armenia and the region by transforming lives of ordinary students into stories of exceptional success and by supplying the economy with bright minds!



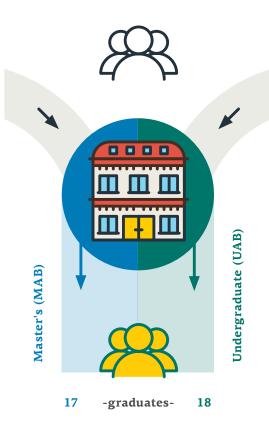




ATC - A GEM OF AN EDUCATION

S U C C E S S S T O R Y





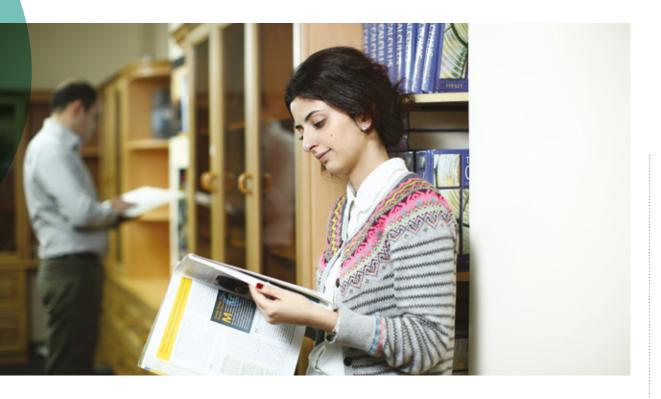
This September we welcomed newcomers to the ATC family to start another year of productive cooperation with the young generation who chose agribusiness for their professional career. In 2015 we admitted **34 students** to the undergraduate junior (UAB) class and **18 students** to the first year of Master of Agribusiness (MAB) program.

Eighteen UAB and 17 MAB students graduated this year, receiving their Armenian National Agrarian University (ANAU) Diplomas and Texas A&M University Certificates. Thirty-one junior UAB and 15 first year MAB students completed summer internships in agribusinesses, NGOs, banks, and other organizations.

Recently I started my own business which actually was my ultimate goal when applying to ATC years ago. I am the founder and Executive Director at "Irish Coffee" coffee shop, and what I have now is due to the hands-on experience which I received during my education at ATC. While still an undergraduate student, I was offered the position of Product Manager at SAS Group Company. I performed very successfully thanks to my knowledge in Marketing and Operations Management. Within three months I was offered the position of Deputy Manager based on my extensive knowledge of Finance, Strategic Management, Business Ethics, and Statistics that I learned in ATC. Ten months later I was promoted again to the position of Director because I was able to process Econometric and Forecasting Analyses. These skills helped me in budgeting, forecasting, and setting up the right business strategy. I attribute much of my success to ATC which provided me with a true gem of an education. I guarantee I have never seen this high quality of education in any other university in Armenia.

Hayk Ter-Grigoryan

Founder & Executive Director "Irish Coffee" coffee shop, Armenia ATC graduate 2014



WORLD
CLASS
EDUCATION
IN ARMENIA

ATC is the first and currently the only specialized educational program in agribusiness in Armenia, which offers high-tech learning tools combined with customized and individual-oriented teaching approaches. The curricula of ATC programs are western-structured, based on the agricultural economics curriculum of Texas A&M University. ATC equips future finance and marketing specialists and entrepreneurs with strong quantitative, managerial and decision-making skills. Courses are taught live and online in English by American, European, and Armenian instructors.

Summer Preparatory Courses helped me successfully pass the entrance exams and become part of ATC's innovative English-speaking learning environment, which then propelled me to a well-paid job in Armenia.

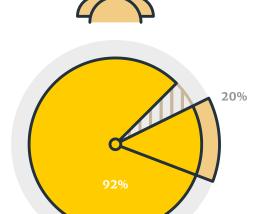
Gevorg Martirosyan ATC UAB student

ATC is a student-centered institution. I love the way the teachers conduct the classes and what I like most is the way they check our progress. They always provide personal feedback and comments on our assignments. These gives me a feeling that I have a private teacher always available to help me. This has been essential for my success in learning.

Lianna Hovhannisyan ATC UAB student



Over 20% of ATC graduates hold executive positions in their organizations





92% of ATC graduates find jobs within the first year after graduation

FROM INTERNSHIP TO EMPLOYMENT

Internships and field trips are the applied parts of experience-based education at ATC.

During 2015, 46 UAB and MAB students completed internships at 25 companies, including Pernod Ricard Armenia CJSC, CARD Foundation, Pepsi Cola Bottler, Jermuk International, Golden Grape ArmAs LLC, Ameria Bank CJSC, Jermuk Group CJSC, Armenia Wine LLC, SEF International UCO, SIS Natural CJSC, MAF Carrefour Armenia, Central Bank of Armenia, Beer of Yerevan CJSC, Baker Tilly Armenia CJSC, Aveliats LLC, Coca Cola HBC Armenia, Armenian Harvest Promotion Center, Green Lane agricultural support NGO, Farm Credit Armenia UCO, and more. All the UAB students participated in field trips to 15 companies including: Natfood CJSC, Dustr Melanya LLC, MAP CJSC, Arcolad CJSC, Armenia Wine LLC, Coca Cola HBC Armenia, BIGA Armenian-Dutch IV. Unifish LLC. Nicola International Armenia LLC, etc.

International **student exchange and study abroad programs** are integral parts of the student experience at ATC. As of 2015, 16 students from European universities studied at ATC for 6 to 10 months. During the same time, 20 UAB and 8 MAB students studied in universities around Europe in the framework of Erasmus+ and



other student exchange programs. The credits from ATC have always transferred to the host universities, making ATC one of the very few educational institutions in Armenia which can participate in these student exchange programs.

S U C C E S S S T O R Y





INVESTMENT
IN EDUCATION IS
LIFE-CHANGING

Sponsorships help young Armenians from vulnerable rural families, working women, and those with outstanding academic performance to complete their ed-

ucation at ATC which transforms their lives. Therefore, ATC makes the best effort to find sponsorship opportunities for these students. During 2015, the **Hirair** and **Anna Hovnanian Foundation** sponsored 9 UAB students and 1 MAB student. Also, 1 MAB student received a full two-semester sponsorship from **Anna Yeritsyan**, Director of the ICARE Agribusiness Research Center.

As a first year bachelor student at ATC, I completed my internship as a teaching assistant for the Agricultural Economics course. My duties included preparing exams and lecturing. This internship offered me a good chance to utilize my skills obtained at ATC. The ICARE research team noticed my interest and abilities and I was invited to become the member of their team. Working with professionals helped me to continue developing my research skills. As a result, I was selected to be a part of a new research team developing cost-effective business models and ecologically beneficial water management practices for fish farms in Ararat Valley. ICARE has changed my entire life and I am proud to be a member of the ATC family!

Hovhannes Mnatsakanyan

Researcher Sustainable Fisheries for Enhanced Water Resources in Armenia, PEER Cycle 4 ATC graduate 2015











My education in the MAB program was made possible by the sponsorship support from the Hovnanian Foundation. Sponsorships of this type are investments in students' careers and also investments in Armenia. I firmly believe that educated youth is Armenia's key asset. What can be more valuable than investing in education?

People with vision and talent for leadership are the ones who change things. Studying at ATC gave me the confidence to be a leader and an entrepreneur. Upon completion of my MAB I plan to start my own business in Armenia.

Gohar Sahakyan ATC MAB student

ANNA YERITSYAN

DIRECTOR
ICARE AGRIBUSINESS
RESEARCH CENTER

Investment in education is what drives economic development of the country. A wise Chinese proverb says: "If you are planning for a year, sow rice; if you are planning for a decade, plant trees; if you are planning for a lifetime, educate people". I want my country to stand strong against all difficulties and have generation of educated, smart people who will be able to lead.

VERNE W. HOUSE, PhD

HONORARY BOARD MEMBER ICARE FOUNDATION

Put your best seeds and your fertilizer in your best soils, the wise farmer advises. I am an educator, a different kind of farmer. I grow students into scholars. My wife, Nancy, and I give to ICARE because we see ICARE graduates in business and government and NGO's make a stronger economy and a better life. Why give more? Armenia is rich with bright students whose families are poor. Armenia needs these graduates. We call it investing in human capital. Don't send seeds. Don't send fertilizer. Send money. ICARE grows good "crops."



At the beginning of the second semester I was granted a sponsorship which was a big honor and a gift for me. This was also a huge responsibility which motivated me to apply myself fully in my studies. I want to express my deepest gratitude to Dr. and Mrs. House who made the sponsorship possible. I am sure that one day when I am successful in my career, I will make my own contribution for ATC students, like the House family and the other donors are doing today.

Veronika Jaghinyan ATC UAB student





TRANSFORM-ING LIVES FOR 15 YEARS





TRANSFORMING LIVES FOR 15 YEARS

I had the privilege of coming to Armenia 16 years ago to help with the establishment of ATC. At that time we were from Texas A&M University and USDA Marketing Assistance Project and were interested in collaborating with the Armenian National Agrarian University to work on an education program that would fulfill some of the emerging needs of the future. We developed a curriculum that grew into ATC in September of 2000. It was my honor over these years to work with the faculty and the students for the development of ATC which became a symbol of the future of Armenia to me. I congratulate ICARE on

Dr. Daniel Dunn Founding Director of ATC and ICARE

the accomplishments of the past and the ac-

complishments of the future!

The end of 2015 was notable for ICARE as the Foundation celebrated a number of anniversaries. On December 8, more than 300 guests gathered in Tigran Mets Hall of the Armenia Marriott Hotel to celebrate the 15th, 10th, 5th and the 1st anniversaries of ATC, ICARE, MAB, and EVN Wine Academy, respectively. ATC alumni from all classes, current students, faculty, ICARE staff, partners and donor organization representatives joined in celebrating the accomplishments and success of the ICARE Foundation.

Formal congratulations were offered by Ministry and University officials, and partner organizations. Guests of the event were welcomed by Texas A&M Professor John Nichols, the Founding Director of ATC and ICARE Daniel Dunn, as well as InnovATE/Armenia Director Angela Neilan through video messages.

With wine from sponsoring companies - Zara Wines, Old Bridge Winery, Golden Grape ArmAs, Koor Wines and Trinity Canyon Vineyards - the alumni lived thrilling moments of reconnection, remembering their years of study at ATC and all the moments they spent together. For the faculty, seeing ATC graduates and learning about their current career status was a moment of honor.



ATC has been a unique laboratory of high quality education at ANAU and the Armenian education system at large; its methods, experience, curricula and the specificities of the teaching process are being replicated by the University.

Prof. Arshaluys Tarverdyan Rector, Armenian National Agrarian University



Our success is the sum of support from our various strategic partners and donors, especially USAID, USDA, and GIZ. I would like to thank them for the financial and technical support and for the dedication to the idea of making the world-class education possible in Armenia.

Dr. Vardan Urutyan Director, ICARE Foundation

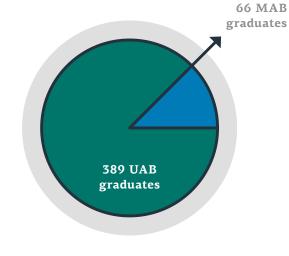


ATC GENERAL

- On-the-job internships in 227 companies in Armenia and globally
- Professors from 58 internationally recognized universities
- Collaboration with 98 partner institutions
- Graduates employed in 263 companies

DURING 15 YEARS OF ITS ACTIVITY (2000-2015) UNDERGRADUATE AGRIBUSINESS PROGRAM (UAB)

- 389 students from Armenia (87%) and from Georgia (13%) completed Undergraduate Agribusiness Program.
- 90% of MAB graduates are currently employed (70% in Armenia and 30% abroad) with salaries on average 2 times higher than the industry average.



DURING 5 YEARS OF ITS ACTIVITY (2010-2015) MASTER OF AGRIBUSINESS PROGRAM (MAB)

- 66 students completed Master of Agribusiness Program.
- 77% of UAB graduates continued their graduate education for Master's degree.
- 95% of MAB graduates are currently employed (97% in Armenia and 3% abroad) with salaries on average 2.5 times higher than the industry average.



DURING 10 YEARS OF ITS ACTIVITY (2005-2015) AGRIBUSINESS RESEARCH CENTER (ARC)

- 55 projects with over 40 partners from 17 countries were implemented.
- Research areas included:
- ► Agricultural finance and farmer financial literacy,
- ► Sustainable agricultural production systems,
- ► Agricultural trade patterns and forecasting,
- ► Policy recommendations on development of agricultural cooperatives,
- ► Value chain analysis and producer-to-market link ages,
- ► Rural development and collaborative action,
- ▶ Poverty reduction and small holder capacity building,
- ► Food waste and loss in supply chains,
- ► Mitigation of climate change impact on agricultural activities, and more.



ATC-100 CAMPAIGN

BETTER COMPUTER LAB FOR ENHANCED LEARNING AT ATC

The development of ICARE assumes continuous updating of curricula, professional development of faculty and staff to fully integrate into the most advanced technologies in education.

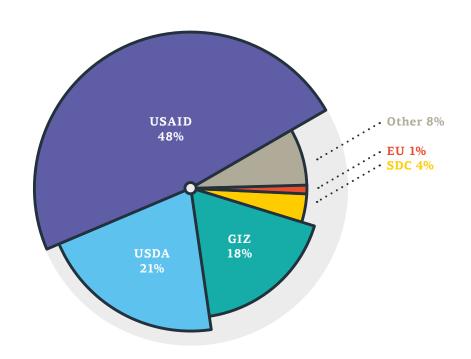
One of our current initiatives is to refurbish the Computer Laboratory, which currently serves nearly 150 students. We launched the ATC-100 CAMPAIGN in December with an initial focus on internal contributions from alumni, staff and faculty. We plan to renovate and equip the Lab with 30 new computers with technical capacities which provide faster internet browsing for students doing research and class assignments. The new computers will support the software needed for students to complete their projects which require the use of GIS, SIMETAR, STATA and SPSS.



2015 FUNDING
SOURCES OF ICARE
FOUNDATION

In 2015 the United States Agency for International Development (USAID) started supporting ICARE through the InnovATE/Armenia project. Virginia Tech as lead institution with partners - Penn State, Tuskegee University, and University of Florida - are implementing the InnovATE/Armenia project which aims to:

- empower ICARE to become a full partner in international research and development projects,
- assist ICARE in bringing the most innovative education and training for development of agriculture in Armenia.
- engage local and international stakeholders interested in sustained development of agribusiness in Armenia.
- promote opportunities for launching new educational programs on workforce development and further strengthening existing ones.





ACADEMY



RENAISSANCE **OF ARMENIAN** WINE

During September and October, 14 students of EVN interned in local and international companies. Five of them completed internships in wineries located in Italy, Germany, France, and Georgia. The students participated in all the processes related to winemaking, which allowed them to implement their knowledge when they returned to Armenia.

The establishment of EVN Wine Academy in 2014 in cooperation with Semina Consulting is another success story of ICARE. This educational unit acts as a center for professional education focused on wine and winemaking. EVN aims to develop the wine industry and promote wine culture in Armenia. After a few decades of "silence" in the wine industry, Armenia, known as a cradle of winemaking, is now experiencing a renaissance of wine culture.

The creation of EVN Wine Academy was of vital importance for Armenia, as indicated by two studies on the "Armenian Wine Sector" and an "Assessment of Training Needs and Skill Development of Armenian Winemakers" conducted by ICARE, with the support of GIZ. These studies concluded that there is a need to improve the wine business environment, boost export oriented economic growth and upgrade the knowledge and skills of local winery managers. The upgrade and modernization of this industry would not be possible without investment in professional education programs for Armenian winemakers.

Currently EVN offers an 18-month Certificate Program in Enology and Wine Business for professionals, and Short Courses & Masterclasses for wine enthusiasts. The professional program was developed and is taught jointly with the Geisenheim University, Germany. Funded by GIZ, the program is aimed at preparing well-ed-







ucated enologists and wine business professionals for the industry. $\,$

Currently 40 EVN students are educated by international specialists, and leading wine-technologists in subjects such as Enology, Grape and Wine Chemistry, Winery Sanitation, and Wine Sensory Evaluation, Winery Management. Upon completion of the program graduates receive a double certificate from Geinsenheim University, Germany, and ANAU. A total of 64 students of all ages completed the EVN Short Courses & Masterclasses during 2015.



Since 2009, wine has slowly become one of the most important aspects of my life. My family bought a patch of vineyards in Vayots Dzor, Aghavandzor village and started making wine specially for our restaurant The Club. After acquiring a Bachelors degree in Linguistics I changed direction to wine production. With friends who shared this passion, we established the first specialized wine shop and bar in Yerevan called "In Vino". My interests in wine quickly shifted from personal to professional. When I heard about the EVN Wine Academy, I decided to give it a try. EVN has helped me fortify our business, create new ideas and venture further. Many local and international professionals of the Academy gave me a new insight and expanded the horizons of my knowledge. The more I become intertwined in the world of wine, the more I realize the positive impact EVN had

on me.

Mariam Saghatelyan Manager, In Vino Wine Club EVN Wine Academy student



In 2014 when I was applying for the EVN Wine Academy, I couldn't imagine that my life would change so much. I have always been interested in enology and viticulture. But agronomy was my passion, so I chose to be an agronomist. EVN Wine Academy turned out to be the best place for me to combine my knowledge and commitment to both preferences, agronomy and enology. As I finish an EVN course, I can say this was the right course for me.

The EVN Wine Academy teaches about winemaking, wine business, and viticulture from A to Z. Modules include Wine Marketing and Tourism, Viticulture, Wine Chemistry, Winery Equipment, Winery Management, Wine Microbiology, Sanitation, and Sensory Evaluation. Great, smart, successful lecturers and guest speakers from all over the world, wine tastings, workshops and internships make EVN outstanding in Armenia and in the region. Hands-on experience in the field combines theory and the practice. Sharing experiences with international lecturers and wine experts brings global expertise to Armenia.

During my study at EVN I had a viticulture and winemaking internship in Baden-Württemberg region, Germany. Following my internship, I was given the opportunity to work at the CARD Agro Service CJSC, one of the interesting and promising agribusiness development compa-



nies in the country; I now apply my wine studies to my work. The EVN Wine Academy is a place where young, motivated and creative professionals become successful leaders who will contribute to Armenia's prosperity.

Mikayel Hovhannisyan Winemaking Consultant, CARD Agro Service CJSC EVN Wine Academy student



LABORATORY FOR WINE CHEMISTRY AND SENSORY EVALUATION

The analytical EVN Wine Laboratory was renovated and refurbished according to international standards and requirements. It serves as an educational wine laboratory for EVN students to do practical analytical research in the chemical and biological processes of winemaking - from grape to bottling.

This laboratory for analysis of grape, must, and wine allows the students to improve their expertise in standard chemical procedures, such as making solutions and titration by using modern and sophisticated equipment, such as the turbidity meter and spectrophotometer.

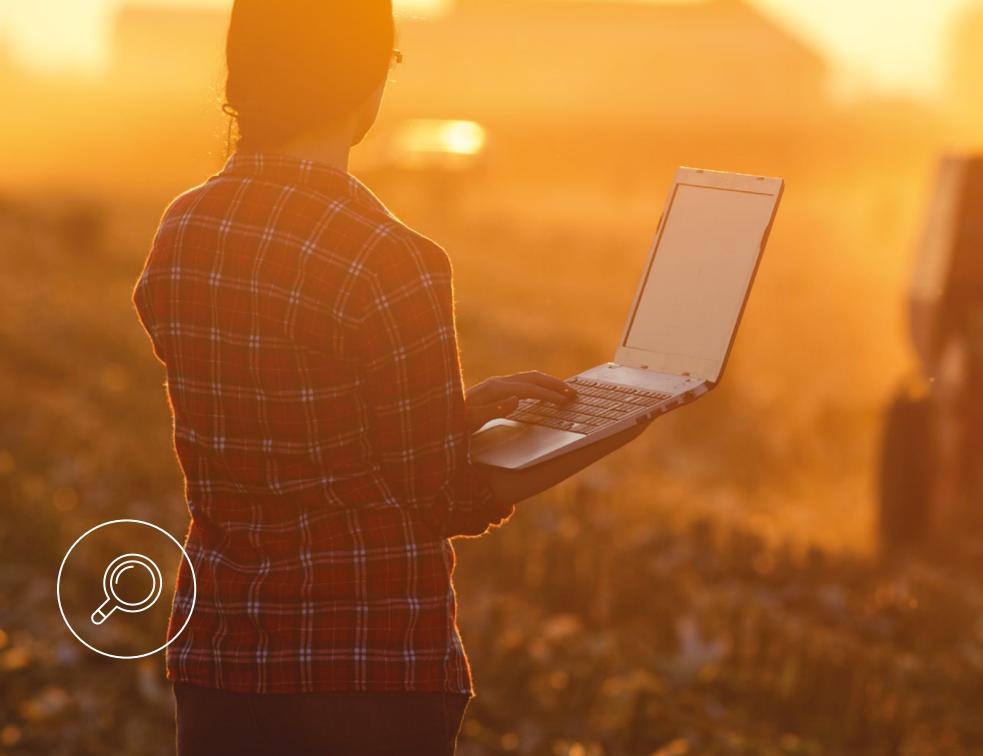
The EVN Wine laboratory is the **only educational wine laboratory in the region.** EVN plans to expand access for Armenian winemakers to basic analytical training to improve and control wine quality. Better quality control leads to a better quality Armenian wine. Local wineries have access to the services of this modern laboratory.

The wine lab was initially made possible in 2015 by generous contributions from **GIZ** and wife and husband **Judith Saryan and Victor Zarougian.**

The best-known names in the Armenian wine industry trust EVN to teach their employees.

Our innovative methods have improved the way employees of big companies work like ArmAs Winery, MAP Brandy and Wine Factory, Astafyan Winery, Getnatun Winery, Armenia Wine Factory, 365 Wines Winery, Koor Wines, and Trinity Canyon Vineyards,





AGRIBUSINESS RESEARCH CENTER



TOWARDS ENHANCED WATER RESOURCES

During a decade of operation ICARE has earned a reputation for being the leading organization in agribusiness related research in Armenia. The Agribusiness Research Center of ICARE has worked with more than 60 partner organizations in Armenia and abroad and is proud that these initial projects have resulted in many long-term partnerships.

For this particular project the Agribusiness Research Center focused on the preservation and efficient use of water. A three-year Sustainable Fisheries for Enhanced Water Resources in Armenia (SFEWRA) project was funded by USAID and National Science Foundation through Partnerships for Enhanced Engagement in Research (PEER). This project will contribute to controlled, sustainable and economic utilization of water resources in the Ararat Valley.

During the last decade, Armenian fish production flourished and the number of profitable fish farms operating in the region increased dramatically. Fish farming became one of the most promising industries in the country. However, several years ago environmentalists raised concerns that the ground water usage for fish production exceeds all permissible levels and presents a threat to Armenia's limited ground water resources. Nearly one third of all springs in Ararat Valley have dried out, causing irrigation problems in many rural communities, and



reduction of the quality of soil used for agricultural production purposes.

The SFEWRA project addresses the issues of depleting ground water resources in Ararat Valley. The project will contribute to the efficient water use in Ararat Valley by modeling more effective discharge water system for the targeted fisheries. Selected fisheries will have models and calculations of all expenses required to re-circulate the water or direct it for irrigation of nearby farms. Constant monitoring of water quality and expert advice will help fish farm managers to make decisions that will contribute to the sustainability of their businesses without harming the natural ecosystems.



Agribusiness Research Center

BETTER AGRICULTURAL TRADE IN CIS COUNTRIES

Another research project that has created a long-term partnership network for the Agribusiness Research Center of ICARE is AGRICISTRADE. Implemented in all CIS countries, this project resulted in the development of a new consortia for joint projects in the region. Within AGRICISTRADE data on each partner country agricultural production, trade, policies and prospective developments are collected, and shared (agricistrade.eu) to be used by the broader research community. As a result of this project, Armenian policy-makers can assess the competitiveness of Armenian agricultural products and craft their future policies to promote high-value added goods in the foreign markets or understand the causes of untapped agricultural production potentials. In turn, the European and international community gains insight into roles the CIS countries can play in the international trade.

PUBLICATIONS PROMOTING INVESTMENTS

In 2015 the research division had two study-based publications aimed at promoting investments in Armenian agriculture. The "Agro Investment Guide" which was developed in collaboration with the RA Ministry of Agriculture and Swiss Cooperation Office in South Caucasus, provides information about the most potentially profitable sectors of agriculture in the country such as vineyards, orchards, greenhouses, berries, vegetables, animals, and fisheries. The Guide also provides an informative financial analysis on payback periods and project profitability for investors.



ICARE has also published the results of the "Baseline Study of the Armenian Wine Sector" addressing trade dynamics and trade geography, statistical and macroeconomic indicators, situational assessment of wineries, with emphasis on professional skills needed by Armenian wineries. The study is the result of comprehensive research accomplished by ICARE Agribusiness Research Center and can be used by different stakeholders interested and involved in modernizing the wine industry in Armenia. This study was conducted through the financial support of GIZ.

Agribusiness Research Center



