



OUTCOMES REPORT OF THE ORI DIALOGUES PROJECT

December 2024



BACKGROUND



In collaboration with Germany's Candid Foundation, the Applied Policy Research Institute of Armenia (APRI Armenia) organized a series of thematic, multi-stakeholder workshops for a project under the German Foreign Office's Civil Society Cooperation program.

The workshops convened a diverse group of environmental, health, and technology experts, including civil society representatives, policy advisers, and other key stakeholders from Armenia and Germany. Their primary aim was to facilitate knowledge exchange, foster networking, and develop solutions to pressing challenges in green transition, nutrition policy, and digital literacy. The project ran from September 2024 to December 2024.

Three one-day thematic workshops were held—two dedicated to each topic—with approximately 12 participants per theme.

The workshops took place in Yerevan on November 25, 2024, and Berlin on December 6, 2024. Each session focused on exchanging best practices, promoting cooperation, and building a network of experts specializing in the key policy areas identified.

This outcome report summarizes the discussions, main findings, and recommendations. Notably, areas of cooperation were identified for targeted projects that align with one of the project's central objectives: partnership-building.



KEY FINDINGS AND RECOMMENDATIONS

Health: Nutrition Policy

The workshops addressed challenges in developing evidence-informed health policies, nutrition, and food system issues and promoting healthy, sustainable food practices among schoolchildren and the broader community.

Key Findings:

Data and Research Infrastructure:

- National databases and studies on dietary habits and nutrition-related health outcomes in Armenia are insufficient. Existing data, primarily collected through household surveys by the National Institute of Health, often lack validity because they rely on self-reported information. Data manipulation, such as recording immediate causes of death instead of underlying ones, also distorts statistics on nutrition-related diseases.
- Armenia lacks national nutrition guidelines, which are essential for evidence-based nutrition planning. This absence hinders the development of cohesive strategies to address nutrition-related health issues.
- Germany's latest dietary guidelines, developed after an inclusive, bottom-up approach led by the Federal Ministry of Nutrition and Agriculture, provide a robust foundation for establishing such standards.
- In contrast to Armenia, Germany benefits from comprehensive institutional support through organizations like the Robert Koch Institute and the Max Rubner Institute, which play key roles in monitoring and collecting health data. The ministry also publishes an annual report on nutrition and consumer behavior. However, data availability in Germany remains fragmented, exacerbated by decentralized federal structures and rigid data protection laws.

Recommendations:

To address these challenges, collaborative research projects between Armenia and Germany should focus on improving data collection and research infrastructure.

- Germany's institutional expertise could help enhance Armenia's data validity and provide foundational research for dietary guidelines
- A joint project between Armenia's Ministry of Health and German counterparts could work on developing evidence-based dietary guidelines tailored to Armenia's local needs.

- Armenia's existing expertise in establishing specific dietary norms for kindergartens could offer Germany valuable insights into early childhood nutrition practices.

Resource Limitations: Armenia faces significant constraints in analytical and financial resources for research and monitoring. Many surveys depend on external funding from donors such as the World Bank. Although Germany has an advanced institutional framework, it also encounters limitations in public health research funding, hindering the generation of high-quality evidence.

Recommendations:

- **Collaborative Research Funding:** Armenia and Germany could pool expertise and financial contributions to support joint research initiatives that optimize resource allocation. Applying collaboratively for funding from international donor organizations could facilitate high-level studies.
- **Adapting Methodologies:** Armenia could benefit from Germany's experience in systematically assessing nutrition policies using the Food Environment Policy Index (Food-EPI) methodological framework. This collaboration would enable Armenia to benchmark its nutrition policies against global best practices and identify priority actions tailored to its needs.

School Feeding Programs

Since the discussion primarily focused on the school feeding program within the context of broader nutrition policy, several recommendations were proposed in this aspect.

Recommendations:

- **Participatory Recipe Book:** Armenia's School Feeding Program could develop a participatory recipe book for school cooks, inspired by Germany's Kantine Zukunft project. Actively involving stakeholders such as cooks and nutritionists would enhance its effectiveness.
- **Participatory Decision-Making:** Germany's democratic approach to Kantine Zukunft, which incorporates input from cooks and other stakeholders in decision-making, contrasts with Armenia's more hierarchical model. Armenia could adopt these participatory methods to utilize cooks' expertise better and foster active engagement in school meal programs.
- **Food Management and Procurement:** Germany's thorough analysis of food management systems and catering-based procurement processes could help inform Armenia's school feeding policy. Conversely, Armenia's streamlined implementation of standardized technological cards in schools offers valuable insights for Germany.

- **Joint Cooking Sessions:** Organizing joint cooking sessions and workshops between Armenia's School Feeding Program and Germany's Kantine Zukunft could promote mutual learning and knowledge sharing in food management practices.
- **Nutrition Councils:** Germany's model of Nutrition Councils could serve as a framework for increasing public participation and community engagement in nutrition policy. Armenia could establish similar councils to support collaboration between schools, kindergartens, and parents to monitor and improve dietary practices.

Environment: Green Transition

The agenda addressed key topics, including the challenges of green transformation in Armenia and Germany, green private-sector development, Germany's approach to engaging stakeholders through public awareness and social acceptance of green transitions, funding strategies for resource-constrained economies, and opportunities for bilateral cooperation.

Key Findings:

Sustainable Agriculture and Food Security

- The Armenian government is implementing a 40 percent reduction in water consumption for fish farms, necessitating innovative solutions such as recirculating aquaculture techniques.
- Collaboration with German institutions and fish farms could help Armenia adopt advanced recirculating aquaculture methods.
- Armenia's knowledge and implementation of advanced aquaculture technologies, particularly those for sustainable fish farming practices, are lacking.

Recommendations:

To address these challenges, collaborative research projects between Armenia and Germany should focus on improving data collection and research infrastructure.

- Leveraging provisions in the EU-Armenia Comprehensive and Enhanced Partnership Agreement (CEPA) related to sustainable aquaculture could help Armenia incorporate modern practices from German aquaculture, such as improved stock management and environmentally friendly fish farming techniques.
- Foster cooperation in smart irrigation and climate-smart technologies by establishing demo sites or labs, using German expertise.

Production of Seeds and Plant Material

Armenia's agricultural sector relies heavily on imported certified seeds and planting materials, creating significant vulnerabilities. The disruptions caused by the COVID-19 pandemic underscored these risks, with delays and damage to imported materials leading to substantial losses in orchards and crop development. These disruptions also impacted the horticultural sector, slowing the development of intensive orchards across the country.

Recommendations:

- Armenia should prioritize developing local nurseries capable of producing certified and accredited planting materials to reduce this dependence. German expertise in nursery development—emphasizing certification, digitalization, and trial processes—can serve as a model for Armenia.
- Leveraging Armenia's membership in the International Union for the Protection of New Varieties of Plants (UPOV) could strengthen breeders' rights and lay the groundwork for robust local seed production. This aligns with the provisions of CEPA, specifically Article 252.

Forestry and Agroforestry

Armenia faces significant challenges in forest management and forest landscape restoration (including afforestation and reforestation efforts). Among key challenges are the limited institutional capacity. There is also a need to enhance understanding and practices around agroforestry and to integrate it into existing farming systems.

Recommendations:

- Germany's experience with private forests and agroforestry systems offers valuable lessons. The agroecological schemes implemented in Germany could serve as a model for Armenia.

Digital Literacy in Agriculture

Armenian farmers have a notable gap in digital literacy, particularly in using simple digital tools such as weather stations and sensors that could aid in informed decision-making.

Recommendations:

- A project could be developed to train farmers in setting up basic digital weather stations to collect data on soil moisture, temperature, and related metrics, along with providing training on the benefits of precision agriculture.
- Implementing digital early warning systems, similar to Germany's weather sensors, which monitor weather patterns and insect activity, could assist farmers in determining the optimal times to apply pesticides.

- The initiative could also integrate satellite data for precise agricultural planning and improved land-use optimization.

Renewable Energy and Energy Transition

A significant challenge for Armenia is integrating renewable energy into its existing infrastructure. Outdated grid systems are ill-equipped to handle interruptions from renewable sources such as solar and wind energy. This issue is compounded by the lack of energy storage solutions, leading to wasted resources when renewable energy production exceeds grid capacity. Additionally, renewable technologies are underused in Armenia. While solar energy has gained traction due to favorable geographical conditions, wind energy remains underexplored due to geographical limitations and logistical challenges in transporting large wind turbines.

Recommendations:

- **Feasibility Studies and Infrastructure Investment:** Conduct comprehensive feasibility studies to assess renewable energy potential and prioritize infrastructure investments tailored to Armenia's regional needs.
- **Integrated National Strategy:** Incorporate renewable energy goals into a broader national strategy encompassing food and water security. Germany's success in aligning long-term goals with regional cooperation strategies could be a model for Armenia's green transition.
- **Private Investment in Renewable Energy Generation:** A favorable legislative framework can attract private investment in renewable energy generation.
- **Innovative Financing for Grid Infrastructure:** Grid infrastructure, often considered a natural monopoly, struggles to attract private capital. Armenia and Germany share this challenge, as robust grid systems are essential for expanding renewable energy. Exploring innovative financial models that successfully mobilize private investment in natural monopolies could provide valuable insights.

Germany faces challenges in balancing the production and consumption of renewable energy. Most renewable energy—offshore wind, onshore wind, and solar—is generated in the northern regions, where industrial energy usage is limited. At the same time, demand is concentrated in the southern and western regions. This imbalance presents both technical and societal obstacles, including the need to expand grid infrastructure to support energy transmission and overcome local resistance to new construction, often referred to as NIMBYism (“Not in My Backyard”).

Recommendations:

- Germany's strategies for addressing societal resistance to infrastructure development could serve as a model for Armenia. It is recommended that knowledge be exchanged on community engagement and incentive creation for grid expansion projects.

Green Hydrogen Development

- Germany is heavily investing in green hydrogen as a future energy carrier, but the technology for efficient transportation remains under development. Germany plans to import 70 percent of its green hydrogen, necessitating international partnerships with countries with strong solar and wind energy potential, such as Egypt, Morocco, and Namibia.
- Armenia lacks a green hydrogen strategy, which could help identify energy resilience opportunities and increased global partnerships. Uncertainty surrounds Armenia's participation in major regional energy projects, such as the Black Sea underwater cable, which aims to establish a direct connection between the South Caucasus (and possibly Central Asian) countries and Europe. Geopolitical and logistical barriers complicate Armenia's involvement in such regional integration initiatives, which could further support regional stability.

Recommendations:

- Armenia should prioritize drafting a green hydrogen strategy, even as an initial exploratory document. This would enable policymakers to assess the potential, challenges, and opportunities for green hydrogen within the country's energy sector.
- Armenia and Germany could explore bilateral partnerships with other countries that are experienced in renewable energy projects. These collaborations could focus on infrastructure development, technology sharing, and capacity building.

Greenhouse Energy Costs

Modern greenhouses in Armenia rely heavily on gas, which accounts for over 50 percent of production costs and contributes to high operational expenses and carbon emissions.

Recommendations:

- Promote biogas systems for gas generation, which can support vehicles and decentralized networks. This approach aligns with Armenia's infrastructure, where 77 percent of transport depends on gas. Biogas production will highly contribute to effective waste management in agricultural sector and circular economy in general. Establishing a small-scale pilot or experimental biogas plant based on the German model could be a valuable cooperative project.
- Explore using geothermal energy to heat greenhouses, similar to the Dutch model. Adopting cost-effective geothermal technology could reduce heating costs and environmental impacts.

Land Use Planning and Agrovoltatics

Armenia has substantial arable land (around 450,000 hectares), yet around 50 percent remains unused due to fragmentation, small plot sizes, and logistical challenges stemming from privatization policies in the 1990s. Additionally, renewable energy projects are often seen as competing with agriculture, creating tensions between food security and energy development.

Recommendations:

- Implement comprehensive land reforms to address fragmentation while balancing agricultural priorities with renewable energy development.
- Identify degraded or low-value agricultural lands suitable for renewable energy projects to minimize competition with food production.
- Improve legislation regarding land category revisions and changes. For instance, clarifying where and how agrivoltaic projects can be implemented, and determining if land category changes are necessary for such projects, is essential.
- Germany's practice of creating renewable energy zones can guide Armenia in zoning areas for solar and wind energy projects, reducing bureaucratic barriers and mitigating land-use conflicts. Armenia could adopt these participatory methods to utilize cooks' expertise better and foster active engagement in school meal programs.

Policy and Institutional Collaboration

Armenia faces challenges in advancing its green transition. These include a lack of policies to encourage green procurement and enforce environmental standards and weak implementation of existing regulations due to limited institutional capacity. Additionally, financial tools to support businesses—tiny and medium-sized enterprises (SMEs)—in adopting sustainable practices remain insufficient.

Recommendations:

- **Capacity-Building Programs:** Implement targeted capacity-building programs to improve the technical skills of businesses and civil society organizations in adopting green technologies.
- **Green Forums and Clubs:** Establish green clubs or forums to facilitate knowledge exchange, led by civil society organizations from Armenia and Germany, in collaboration with international donors.
- **Public Awareness Campaigns:** Conduct public awareness campaigns highlighting sustainable practices' economic and environmental benefits.

- **Community Engagement and Pilot Projects:** Involve local communities in decision-making processes and promote donor-funded pilot projects to test green technologies such as biogas systems, renewable energy, and waste recycling.
- **International Exchange Programs:** Facilitate international exchange programs to enable Armenia and Germany to learn from successful global green transition case studies. This can support the adoption of proven strategies and technologies to accelerate local progress.
- **Cross-Border Research Collaborations:** Foster cross-border research initiatives to share best practices and advance the adoption of cutting-edge green technologies.

Public Engagement and Policy Advocacy

Framing the green transition in a way that engages the public remains a significant challenge. Many stakeholders perceive it as an obligation rather than an opportunity, which can result in resistance or indifference toward necessary changes. Additionally, effective stakeholder engagement remains difficult.

Recommendations:

- **Comprehensive Communication Strategies:** Develop communication strategies emphasizing renewable energy's economic, environmental, and societal benefits and sustainability to frame the green transition positively.
- **Virtual Reality (VR) Tools for Engagement:** Armenia can adopt Germany's VR strategy to demonstrate the potential benefits of renewable energy projects and improve community engagement.
 - a. German experts could conduct workshops on effectively using VR tools for Armenian local governments, NGOs, and private companies.
 - b. Pilot VR-driven community consultations in regions like Gegharkunik (with strong solar potential) and Lori (possible wind energy zones).
- **Workshops on Stakeholder Engagement:** Organize Armenian-German workshops led by German experts on innovative stakeholder engagement strategies. These could include field visits to successful renewable energy projects in Germany.
- **Knowledge Exchange Programs:** Facilitate programs for Armenian policymakers to observe Germany's participatory frameworks, providing practical insights to enhance local stakeholder engagement.

- **Advancing Citizen Science Tools:** Enable programs that more actively engage citizen science tools and know-how among professional groups, trades, and schools to enhance citizen participation in green transition knowledge and stewardship. The European Citizen Science Association (ECSA) in Berlin could offer invaluable resources for this.

Technology: Digital Literacy

The agenda addressed best practices and challenges in developing digital skills across different demographics, strategies for enhancing digital competencies, workforce development initiatives, innovative tools for digital learning, and opportunities for future collaboration.

Key Findings:

Digital Literacy Across Demographics

Insufficient digital literacy programs tailored to specific groups—including marginalized communities, older adults, and government employees—create barriers to the effective use of digital technologies. Gaps in teacher preparation for digital literacy courses further exacerbate uneven educational outcomes, leaving many individuals without essential skills for the digital age. Additionally, limited access to technological infrastructure, such as 3D printing labs and high-tech resources in rural areas, restricts opportunities for digital upskilling and deepens the digital divide.

Recommendations:

- **Targeted Training Programs:** Develop and support digital literacy programs tailored to specific groups.
 - a. For marginalized communities and rural areas: Collaborate with civil society organizations to design self-paced courses focused on practical skills, such as accessing e-government services and making online payments.
 - b. For older adults: Partner with international donors to fund programs that teach seniors to use digital tools, reducing social isolation and improving their access to services.
- **Expansion of Makerspaces:** Expand maker spaces to rural areas to ensure equitable access to digital tools. Armenia's success in implementing engineering maker spaces in schools could be a model for Germany.
- **Integration with Education Platforms:** Germany could replicate Armenia's digitized educational platforms, where digital literacy initiatives are directly tied to essential school projects. This approach ensures active engagement with digital tools among students and teachers, making proficiency a prerequisite for grading and academic progression.

Resistance to Innovation

Resistance to change remains a significant barrier to adopting digital tools, particularly among older generations and government employees. Skepticism toward digital applications, delays in digital education reforms, and reliance on traditional approaches reflect this.

Recommendations:

- **Training in Innovation Management:** Train policymakers and business leaders in innovation management. German institutions with expertise in this field can serve as key partners.
- **Lifelong Learning Programs:** Mitigate resistance through public-private partnerships that promote lifelong learning. Establishing flexible, short-term digital education programs can ease adoption among older generations and employees.

Knowledge Gaps Among Educators and Workforce

Knowledge gaps present challenges for both educators and the workforce. Many educators lack the skills to teach emerging digital competencies, such as effectively using AI tools. Workers often resist adopting new technologies, particularly AI, fearing disruptions to their established workflows. SMEs cannot provide adequate digital upskilling for employees.

Recommendations:

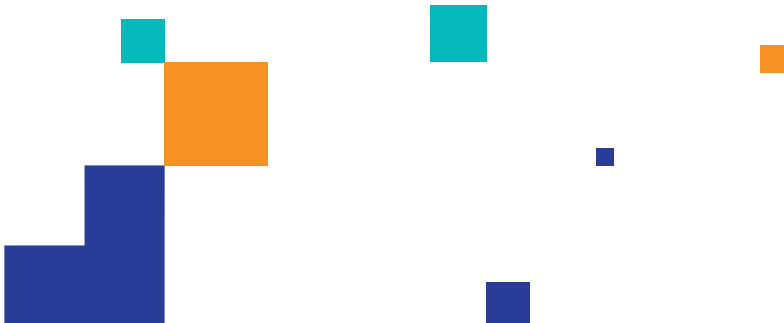
- **Targeted Awareness Campaigns:** Launch public awareness campaigns that highlight the benefits of digital tools using real-life examples and testimonials. Practical stories—such as saving time with online services or earning rewards like cashback—can demonstrate their value in daily life.
- **Teacher Training Programs:** Invest in robust teacher training programs to improve educators' digital literacy. Develop systems to assess teacher preparedness and recognize those who successfully integrate digital tools into their teaching methods.
- **Influencer Partnerships:** Partner with influencers to promote digital literacy tools and programs, particularly those that engage younger audiences and encourage adoption.
- **Educational Vacations for Employees:** Adapt Germany's model of tailored educational vacations to Armenia, enabling workers to participate in self-selected digital literacy programs while maintaining job security.
- **Incentives for SMEs:** Develop a framework to incentivize SMEs to engage in digital training programs. Offer tax benefits to companies that enroll employees in certified digital literacy courses.

Disconnection Between Industry and Academia

Armenian universities often struggle to align with industry needs. The disconnect between educational initiatives and local job markets creates challenges in securing internships and employment opportunities in technology. While industry-led programs like university labs show promise, skepticism about specialized training remains.

Recommendations:

- **Frameworks for Collaboration:** Establish frameworks for collaboration between academia and industry, involving representatives from both sectors. Multi-disciplinary labs inspired by Germany's SAP-funded institutes could serve as a model.
- **Curriculum Development:** Integrate industry participation into curriculum development, ensuring training in emerging fields like AI and data management aligns with future job market demands.
- **Public-Sector Internships:** Incorporate public-sector internships into university programs to provide students with opportunities to apply their studies in practical settings.



ABOUT APRI ARMENIA



The Applied Policy Research Institute of Armenia (APRI Armenia) is a nonpartisan think tank and policy accelerator focused on advancing regional stability, sustainable prosperity, and civic engagement. Our programs and initiatives are oriented toward concrete problem-solving, addressing key challenges for the near-term and long-term realization of Armenia's potential. Through its activities as a convener and collaborator in strategic research, APRI Armenia facilitates breakthrough ideas and multi stakeholder initiatives for positive change in our region.

The launch of APRI Armenia comes in response to a dire need for deep insight, dynamic policy dialogue, and clear understanding of Armenia in its geopolitical context. The organization is action-oriented, with a blend of long-term initiatives and near-term capacity-building projects. We are creating a space to work on critical policy issues in a constructive and collaborative professional atmosphere.

Applied Policy Research Institute of Armenia

2/2 Melik Adamyan Street
Yerevan Armenia

ABOUT THE THE CANDID FOUNDATION



The Candid Foundation is an independent non-profit organization, which since its establishment in 2014, has developed into a privately chartered think tank and a dynamic project hub. We are based in Berlin, Germany, but remain sensitive to developments in the Middle East, Mediterranean and other locations where our projects are focused.

Candid Foundation gGmbH

Chausseestraße 11
10115 Berlin, Germany

