

## Core Competencies for Agriculture and Natural Resource Management

TOPS proposes that PVO staff working in Agriculture and Natural Resource Management (ANRM) possess the below described core competencies. Appropriate knowledge, skills, and abilities on the core competencies encompass five key drivers: agro-ecological resilience, market development, improved nutrition, gender equity, and social and behavioral change. Continual personal development of these core competencies will enable PVO staff to effectively work alongside food insecure individuals, households, and communities toward enhancing resilience and reducing vulnerability in order to achieve greater food security.

Core Competency	Knowledge, skills, and abilities of PVO ANRM staff
<b>ANRM program design and development</b>	
Understand and overcome barriers to change	Conduct a formal barrier analysis, identify and prioritize key determinants of behavior, and create plans to change behavior.
Market analysis	Conduct rapid market analysis to better understand complex market systems within emergency and development settings. In emergency settings using tools such as Emergency Market Mapping and Analysis toolkit (EMMA) and Market Information and Food Insecurity Response Analysis (MIFIRA). In non-emergency settings conduct full market assessments through Market-systems analysis, Value Chain Analysis (VCA), and Livelihoods analysis.
Gender analysis for ANRM programming	Conduct gendered value chain analysis and gendered analysis of ANRM activities (such as: ownership and management of assets; access to and management of natural resources; access to extension and inputs; agricultural labor and time expenditure; control of agricultural income; agricultural decision-making; sexual and gender-based violence (SGBV) as a barrier to women's participation in agricultural activities). Incorporate information into a gender strategy for ANRM programming.
Environmental impact assessment	Understand how to measure and mitigate the impact of designed interventions on the environment.
Effective asset transfer	Identify options for improved asset transfer (seeds, fertilizers and tools) to leverage development of sustainable input supply systems. Use of food, vouchers and cash (including best practices in using food and cash for work in ANRM programming).
<b>Technologies to enhance agro-ecological resilience</b>	
Integrated seed systems	Understand key elements of resilient integrated seed systems. Combining formal and informal, market and non-market channels for seed system solutions including: seed asset transfer; community seed groups; and commercial certified seed enterprises.
Soil and water management	Use of technologies for more efficient and sustainable soil and water management (including irrigation), and watershed management approaches.
Conservation agriculture	Knowledge of techniques that can be applied by resource-poor farmers to sustainably increase food production without further depleting soil and water resources.
Agroforestry	Use of agroforestry techniques to increase diversity and productivity while managing the natural resource base.
Livestock management	Understand pastoralism and enclosed livestock techniques for limited land holdings, how to enhance rangeland and grassland management, and practices such as zero-grazing and fodder production.

Integrated pest management	Use of integrated pest management techniques for fruits, vegetables and field crops.
Integrated aquaculture	Knowledge of sustainable integrated aquaculture-agriculture farming systems to enhance income and nutrition options.
Urban and micro-gardening	Use of horticultural techniques for small and urban gardens.
Climate change mitigation and adaptation	Understand techniques to increase resilience of farmers and farming systems to climatic change; approaches to improve capacity of systems to sequester carbon and mitigate climate change (increasing carbon stocks in terrestrial systems-farmland, grassland or forests).
Post-harvest technologies	Knowledge of reducing post-harvest losses and reducing nutrient loss through improved handling and storage, including reducing mycotoxins.
<b>Agriculture for improved nutrition</b>	
Key nutrition concepts; effects of malnutrition on agriculture	Understand the main causes of malnutrition, impacts of dietary gaps of protein, iron, and Vitamin A, and the impact of poor nutritional health on agriculture.
Leveraging agriculture to improve nutritional outcomes	Understand different agricultural strategies that can improve nutrition (such as use of staples, diversified production and improvements in post-harvest storage) ensuring they are linked to market-based opportunities.
<b>Market development</b>	
Market-based programming	Understand the need for market-based engagement with the poor, and the use of market based approaches (such as Making Markets Work for the Poor (M4P)) to understand market systems and implement market development programs.
Value chain development (including nutrition sensitive value chains)	Knowledge of the key drivers of value chain development and opportunities for the poor to upgrade their positions within viable value chains. Building awareness of how value chains and markets work among poor households The importance of using the value chain model as a driver for improving nutritional outcomes.
Improving the enabling environment	Understand the impact of the enabling environment on value chains and options for improving it (such as addressing trade barriers, governance and advocacy).
Private sector engagement	Understand how to engage more effectively with the private sector, creating opportunities for private sector linkages within projects, and identifying how private sector actors can be a force for sustainability.
Farming as a business	Use of tools that help farmers (with limited literature and numeracy skills) to understand basic accounting, profit analysis, business planning and marketing skills. Linking business management data to M&E indicators.
<b>ANRM technical extension services</b>	
Improving access to technical information	Understand technology transfer methods including: training; visit extension; agricultural cascade education; embed services; Information and Communications Technology (ICT) (including mobile); farmer field schools; and on-farm trials. Training techniques for farmer groups and strategies to address gender equity.
Choosing an extension or coverage approach	Understand how to choose the best combination of extension or coverage approaches.
Group facilitation and persuasion	Improve skills in group facilitation and persuasion (such as interacting with different groups, methodologies for adult education methods).

<b>ANRM financial services and insurance</b>	
Informal microfinance	Understand best practices for village savings and loan associations (VSLAs).
Formal microfinance	Understand how to engage with savings and credit cooperatives, microfinance institutions (MFIs), and opportunities for enhancing agricultural microfinance through development of agricultural loan products.
Embedded credit	Knowledge of the opportunities for embedding finance in value-chain actors (such as sales on credit and contract farming).
Agriculture insurance	Knowledge of potential crop and livestock insurance options available to resource-poor farmers.
<b>Measuring impact and using data</b>	
Measuring ANRM results	Useful indicators and tools for measuring and monitoring ANRM results (such as income indicators, profit and loss statements, impact on nutrition, gender).
Operational research in ANRM	Contribute to the development of monitoring systems for operational research in ANRM programs.
Using M&E information to adjust program strategies	Understand how to interpret and effectively use information generated through the M&E system (including annual and mid-term evaluations, operational research data, social and behavior change, and gender information) to adjust ANRM program strategies, including mitigation of negative impacts.