**WSA ASA Virtual – Hybrid agricultural extension services at transformative scale in rural Central America**

A deepening rural crisis of declining agricultural yields, crop loss due to extreme weather, and severe soil degradation creates urgency for Central America’s national extension systems to strengthen their capacity to reach more farmers in more remote areas with timely information and sound site-specific technical recommendations. Small farmers in remote rural areas that stretch the reach of existing extension networks are the most in need and the most difficult to serve. To evolve more effective extension systems with greater reach and at a reasonable cost; CRS’ Water Smart Agriculture Platform (WSA) is partnering with the national agricultural extension systems in El Salvador, Nicaragua, Honduras, and Guatemala, especially the National Agricultural Research Institutes (NARs) and Ministries of Agriculture and Livestock (MAGs). Together, we are co-designing and implementing the ASA Virtual hybrid extension model that integrates digital solutions with established community-based networks of extensionists, lead farmers and WSA promoters. The ASA Virtual hybrid extension system integrates and amplifies the successful WSA Farm Field School extension model implemented through a training cascade of extensionists to agricultural leaders and promoters, and then to farmers.

By integrating digital services based on WSA approaches and content into the national extension systems, ASA Virtual will infuse WSA into sustainable, locally led extension systems that will scale WSA by reaching larger numbers of farmers more efficiently, more effectively, and at a lower cost. Building on the tools, methods, and evidence developed through the 5-year regional Water Smart Agriculture Program, ASA Virtual is structured around the WSA competency model that clearly defines the skills, abilities, and concrete behaviors that farmers need to successfully implement WSA. Virtual modules are designed around key WSA competency areas, such as Regenerative and Conservation Agriculture and Integrated Soil Fertility Management, adding a digital literacy curriculum to help farmers and extensionists close the rural digital divide and make the most use of the ASA Virtual tools. National system experts and extensionists are participating in the development and validation of the new modules and are being trained to use the ASA Virtual tools to serve their farmer constituencies. The national agencies are co-investing in the necessary infrastructure and equipment to set up ASA Virtual “nodes” to facilitate access to the digital tools in remote rural areas. The Learning Management System will integrate robust monitoring of training accomplishments and results and provide pathways to certification.

The need to answer restricted travel and meetings under the Covid-19 pandemic has further highlighted the need for such a response for more effective extension services.

ASA Virtual Learning Management System

ASA Virtual integrates digital resources to reinforce, accelerate and improve the quality of technical support provided through existing community-based the extension cascades. WSA and partners have developed a Learning Management System guided by WSA’s competency model and proven WSA training content and designed under pedagogic principles for adults to maximize learning, interaction, and entertainment. The system will include feedback loops that allow farmers to ask questions and solicit specific trainings as well as to submit their own content and testimonies.

While website and digital tools have been previously developed for some areas of Latin America, they have not successfully reached a large audience of farmers nor gained sustainable presence within the national extension systems. ASA Virtual has been co-developed with key national extension actors from the outset who are co-investing in the development of the tools. Furthermore, ASA Virtual is refining former digital approaches by creating a hybrid system that will combine in the field networks of promoters and extensionists providing hands-on training connected with the strategic support and reinforcement provided by the digital tools. With recent advances in connectivity in the rural areas of Central America, programmatic support to make sure that rural promoters have access to the bandwidth and devices they need to take advantage of the ASA Virtual system, integration into permanent national extension systems, and a solid proven technical base, WSA has primed the ASA Virtual initiative to succeed where others have not.

Digital Learning Modules for key technical competencies

WSA has identified five foundational technical areas that are the focus of the core virtual learning modules: (1) Digital Literacy; (2) Permanent Soil Cover; (3) Integrated Soil Fertility Management; (4) Cover Crops; and (5) Diversification. In conjunction with the Blue Harvest Regenerative Project, CRS has also developed two specific modules for coffee producers. In conjunction with the WSA Enterprise and WSA2 projects, has added additional course material in Savings and Internal Lending Groups (SILC), marketing, agro enterprise, and rural finance. All learning modules are based on an expanded WSA competency model and have a standard structure that includes culturally appropriate WSA personalities, learning objectives, animations, games, and evaluation.

CRS ASA Virtual Advisors

WSA ASA Virtual is working with national partners to strategically locate “ASA Virtual Nodes” in existing extension or municipal offices that have been equipped to connect surrounding rural communities with virtual tools through computers, projectors, and cellphones. The ASA Virtual nodes provide a support system for extensionists and promoters/lead farmers that use their digital tools to provide hands-on facilitation and training in the Farm Field Schools. The digital modules especially target young adult promoters and provide them with guidance for leading field-based activities. CRS ASA Virtual Advisors in each country are supporting Ministry of Agriculture staff to train extensionists, provide technical mentorship as the extensionists facilitate the training and Farm Field Schools, and monitor implementation to provide technical reinforcement and problem-solving support to ensure success of the pilot and to integrate with regional learning and adaptation of ASA Virtual.

Results to date 2025**:**

* ASA Virtual continues to reduce the gap in access to agricultural information among small-scale farmers in Central America and southern Mexico. ASA Virtual is showing consistent growth and user participation and has reached **an estimated** **40,293 users**.
* 7,519 Virtual Classroom users are tracked via course registration; and an additional 31,774 users have accessed ASA Virtual content on social media, radio programs, and the ASApedia online resources portal.
* There are 17 courses currently available on the platform (11 for farmers and 6 for extensionists). Newly added courses include 1 on Savings and Internal Lending Communities (SILC), 2 interactive courses on crop diversification, and 1 on financial literacy. WSA2 is currently developing 20 additional interactive courses on Farmer Field Schools, entrepreneurial activities, and diversified crops.
* The use of ASA Virtual digital tools continues to grow as a proven and effective complement to in-person agricultural extension services, allowing significant scaling impact for WSA farmers.
* **Radio Campaign*****Con los Pies en la Tierra* has 6 million potential listeners[[1]](#footnote-1)** broadcast on 12 regional stations, achieving 853 broadcasts of 40-60 minutes each. In 2024, CRS achieved continuous broadcasting with a series spanning 22 weeks from June 3 to November 21, 2024, covering 20 diverse topics, including agricultural practices, market access, youth in agriculture, and SILC, using the edutainment methodology. The radio programs work to inform and push listeners/users to other ASA Virtual tools. For example, referring listeners to the technical assistance helpline which received an average of 35 interactions per week in 2024. In turn, 50% of these are channeled to WSA WhatsApp practice groups, 26% requested access to the virtual classroom, and 24% were direct phone inquiries.

ASA Virtual has been designed to address the very real challenge of providing quality extension services at scale to a large, diverse and dispersed population of small-scale farmers. The strategy is based on key learning and capacity built through the regional Water Smart Agriculture Program. WSA staff have worked with national system key actors from the outset to co-design and co-invest in the initiative, developing the capacity of permanent national institutions to implement and sustain the services over time. Based on the proven technical proposition of the Water Smart approach, integrated with the national systems, and designed to reach a transformative number of farmers, ASA Virtual seeks to catalyze profound, sustainable systems change in the small-scale agriculture sector of Central America.

1. The potential reach of radio programming represents the cumulative projection of radio coverage by the 12 stations in rural communities. [↑](#footnote-ref-1)