

[Virtual Irrigation Academy Project Phase II \(VIA II\)](#) [1]

Background

Having successfully coordinated the Virtual Irrigation Academy Project Phase I (VIA I), ASARECA was requested to continue its coordination role in the VIA II project whose implementation started in July 2019 and is expected to end in July 2023.

The **Virtual Irrigation Academy Project Phase II (VIA II)** is a brainchild of the Commonwealth Scientific and Industrial Research Organization (CSIRO) in partnership with the Australian Centre of International Agricultural Research (ACIAR).

Highlights of Phase I

In Phase 1, the project refined and tested a suite of tools that measure soil water, nitrate and salt using colours as thresholds for action. The aim was to build a people-centered learning system that could capture and document the experiential knowledge of irrigation farmers. The tools include the Chameleon sensor array and reader, the Full Stop wetting front detector, the Chameleon conductivity meter and nutrient colour test strips. The Chameleon reader is Wi-Fi enabled so that the information is both easily accessible to the farmer in the field and simultaneously uploaded to the cloud, where it is collated and the data visualized as colour patterns at <https://via.farm/> [2]. This is the philosophy behind the Virtual Irrigation Academy (VIA).

Achievements in Phase I

Farmers in Tanzania and Malawi, which piloted the project, have adopted these tools and the demand for them continues to grow. The impact at farm level, even in the short term, exceeded all expectations. The majority of farmers reported large increases in yields, coupled with reduced use of water. Social learning around the tools means that impacts have been observed beyond the scale of the project itself, and scheme level conflicts over water have dramatically reduced. Short video clips on <https://via.farm/stories/> [3] give snapshots of farmer experience.

Approach, aim and objectives of Phase II

The title of Phase II is “**From water monitoring to learning to governance.**” It is implemented in the three countries of Malawi, Mozambique and Zimbabwe. In this round, the project is developing the system from its current function of monitoring water and solutes, to a water learning and governance platform that can support the needs of smallholder farmers and address the information deficits at scheme to national levels.

Whereas building the capacity of farmers is essential, higher order obstacles limit the profitability of the sector. The water sector is currently constrained by the absence of information that can connect the interests of farmers, scheme managers, researchers, investors and governments, who are the five ‘clients’ of the VIA. Moreover there is no accountability system in place that can track the productive use and governance of water for irrigation, and hence no feedback from which to learn and improve.

Project Objectives:

- **Objective 1:** On-going development and refinement of the VIA tools and platform to make it more robust, cost effective and user-friendly.
- **Objective 2:** Increase the capacity and reliability of the Chameleon production line in Africa, not only for this project, but also for the growing community of VIA users worldwide.
- **Objective 3:** Build cost-effective ways to roll out the VIA and obtain quality-controlled field data as the VIA operates at larger scale.
- **Objective 4:** Develop the data analytics that capture the value proposition for each of the five ‘clients’ of the VIA.
- **Objective 5:** Create the business models and organisational structures that can deliver the VIA irrigation learning and governance platform.

Significant activities and outputs

The project continues to expand the number of farmers participating in the VIA, and focus on deriving information analytics from the expanding database of crops that are being monitored.

The major outputs include new ways to display information about water that connect farmers, extension workers, researchers and managers into a unified

learning community.

Key partnerships.

The project seeks to develop three partnership models.

1. The first is to nurture a group of scientists in how to combine insights from research-based and experience-based modes of learning.
2. The second is to build strong links into the government agencies responsible for the development and management of irrigation schemes and the donors who provide investment funds.
3. The third is to establish private sector capabilities to enter into public-private-people partnerships that can deliver the VIA at scale after the completion of phase 2.

[4]

Source URL: <https://www.asareca.org/page/virtual-irrigation-academy-project-phase-ii-ii>

Links

[1] <https://www.asareca.org/page/virtual-irrigation-academy-project-phase-ii-ii> [2] <https://via.farm/> [3] <https://via.farm/stories/> [4] <https://www.addtoany.com/share?url=https%3A%2F%2Fwww.asareca.org%2Fpage%2Fvirtual-irrigation-academy-project-phase-ii-ii&:title=Virtual%20Irrigation%20Academy%20Project%20Phase%20II%20%28VIA%20II%29>