



FACT SHEET

Well Adapted Coffee Supply (WACS)

**an Adaptation Ledger Specific Application (ALSA) in
the Adapt IT™ suite of climate adaptation tools**

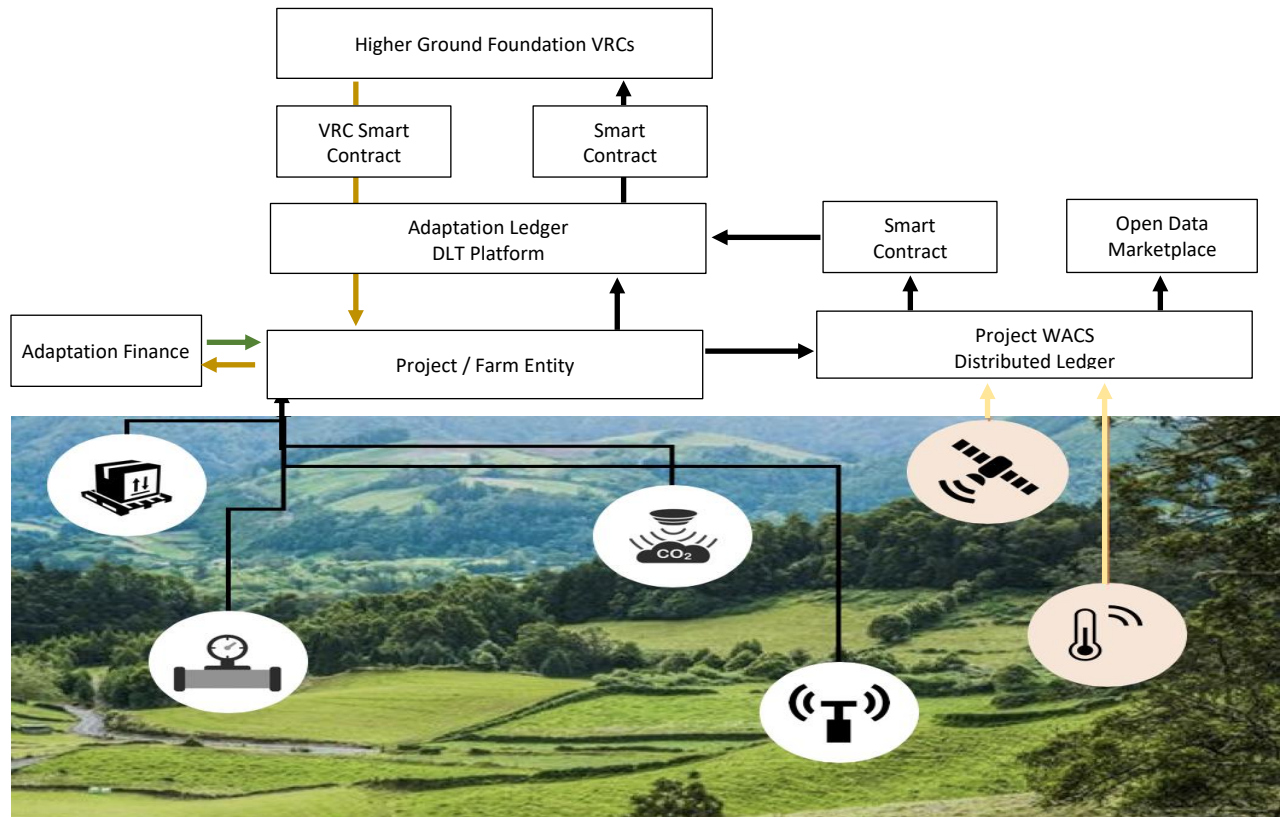
Adaptation Ledger Ltd. is developing a suite of climate adaptation tools for use in agricultural supply chains under the “Adapt IT” banner. The Well Adapted Coffee Supply, or “WACS,” is the first specific application or “ALSA” in the Adapt IT™ series. Adapt IT™ is a customizable foundation that helps specific application developers to mobilize adaptation finance with investment-grade information using digital technologies (e.g., blockchain), smart standards, innovative governance approaches, and a new adaptation unified metric called Vulnerability Reduction Credits (VRCs™) to incentivise adaptation investments.*

What is WACS?

WACS will function as a front-end application that may be linked to more generic supply chain applications to provide a more complete understanding of how coffee producers are undertaking scientifically validated measures to reduce their vulnerability to the climate crisis. WACS is designed to work with existing supply chain apps that have other functionalities (management operations, logistics, provenance and sustainability/certification status). Among other options, WACS may also be deployed as a supply chain management tool with its own value-added that could include taking advantage of using tokenized VRCs to reward projects that demonstrate climate resilient farming practices. However it is utilized, WACS is primarily a tool for integrating data inputs from remote sensors and other sources (digital and non-digital) that creates a more transparent and immutable record of the VRCs that farm plots generate via adaptation efforts.

Adaptation Ledger has adopted the concept of Vulnerability Reduction Credits (VRCs™) as one of its key components. As developed by the Higher Ground Foundation (HGF), VRCs are generated for projects registered using a Standard Framework and approved methodologies for specific

types of projects. Projects seeking registration follow a standardized process that requires third party auditor validation and then registration by HGF for registration. VRCs are issued for projects in operation that maintain monitoring reports and have had these reports verified by an auditor. For more detailed information on our use of VRCs and the Standard Framework, please see the companion memorandum, “VRCs and Adaptation Ledger.”



The WACS application was designed using data and project experience gained from our pilot effort in Honduras with iDE, an international development NGO. In this use-case, the WACS app connects Internet of Things (IoT) enabled sensors and other digital data inputs at the farm plot level for VRC-registered projects. These plot-level inputs will be aggregated at a larger (e.g., cooperative) level for economies of scale and to ensure an appropriate management and oversight capacity. As such, WACS serves as the “first 10 miles” level of the coffee supply chain.

Who benefits from WACS?

At its core, WACS provides robust and verifiable information on the provenance of commodities to ensure sustainability through use of best climate adaptation practices leading to reduce the vulnerability of the entire food supply chain. The immutable character of Distributed Ledger Technologies can be leveraged to optimize the downstream utilization and storage of crops. Furthermore, recording crop yields on a Distributed Ledger can be used to verify increased yields

even in times of environmental distress, be connected to insurance, subsidies and other financial services. The producer gains from access to such services as they offer to drastically improve resilience and easier access to the market at higher margins due to the verifiable provenance of sold goods.

Since WACS will leverage open data platforms using an integrated system of IoT devices, satellite streams and conventional public data sources -- all connected through DLT -- there will be greater transparency and tracking of the source and use of data. Therefore, all stakeholders will have greater confidence on the attribution of adaptation actions and the ownership of adaptation benefits/assets for finance and trading throughout the value chain from farm level all the way to the consumer and back down for finance to the grower. In practice, WACS will convert data streams into monitoring reports, conveyed for verification to third party auditors, that in turn are submitted to The Higher Ground Foundation for VRC certificate issuances. These certificates may then be uploaded onto third party DLT applications.

The entire food supply chain, and certainly the coffee supply, is vulnerable to climate change. Adapt IT applications such as WACS will revolutionize the way adaptation is integrated in the global economy and provide a greater degree of security and stability to the world's food supply. In the face of ever-growing climate induced threats to the entire supply chain, the potential benefits of this app are great for farmer and farm-community livelihoods and for ensuring food security and agricultural commodity supplies for domestic and global businesses and consumers.

By pricing the VRCs that smallholders may earn for resilient farming, a fully integrated WACS system will establish a robust community of coffee growers who have adapted and will sustain climate resilient practices. Moreover, the enhanced body of information on coffee supply and best practices collected via WACS will help plan an appropriate international sourcing strategy and also provides data that may be analyzed to improve sourcing and the adaptation program support options. As a result, banks and investors will have more robust information on the risk profile of the supply chain and also know that the business is managing its physical risk to climate, likely increasing its share price and improving its credit rating. And consumers are given an opportunity to pay a slight premium in return for knowing exactly -- down to the farmer - they are doing their part to help smallholders who give them a good cup of coffee.