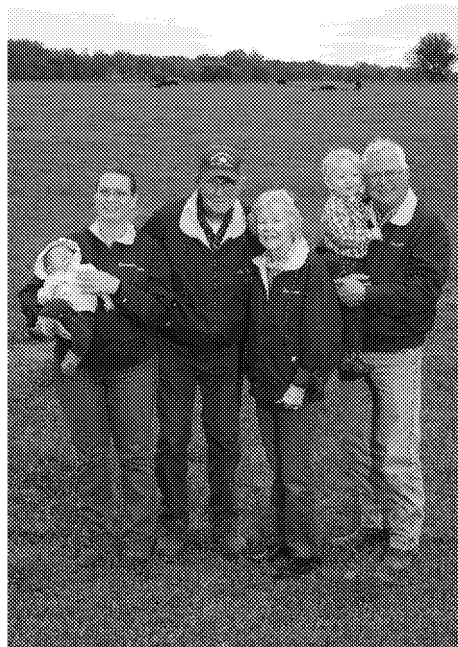




EXECUTIVE BRIEF:
**AGRICULTURAL ECOSYSTEM
SERVICES MARKETPLACE**

February 2018



The Noble Research Institute has embarked on an ambitious national effort to advance ecosystem service markets that incentivize farmers and ranchers to improve soil health systems benefitting society.

**WHY CREATE A MARKETPLACE FOR
AGRICULTURAL ECOSYSTEM SERVICES?**

According to the Intergovernmental Panel on Climate Change, the agriculture sector accounts for roughly a quarter of global greenhouse gas emissions. With the support of ecosystem service markets, however, agriculture can mitigate 89 percent of its emissions by incentivizing farmers and ranchers to effectively sequester carbon into our soils. These beneficial activities also have the potential to improve water quality, control run-off, reduce water demand and generate other ecosystem benefits.

IDENTIFYING THE NEED

Beginning in 2017, the Noble Research Institute has convened a series of meetings with multisector stakeholders to explore and assess the potential for creating a large-scale program to finance, generate

Science Serving Agriculture



“BEING NATURALLY
**INTERESTED IN
THE SOIL,**
BECAUSE OF OUR
BACKGROUND, WE
SAID THIS IS WHERE
WE START.”

—Lloyd Noble

and sell ecosystem service credits from working agricultural lands. The members of these working groups assessed the opportunities, challenges, obstacles, risks and benefits of carbon offsets, water quality protection, water conservation, and other ecosystem service market opportunities for agriculture.

Based on this comprehensive appraisal, Noble identified the need for a new agricultural scale, pay-for-success ecosystem service market-based program. Such a program would improve soil carbon and soil health and monetize the beneficial outcomes generated by changes in agricultural practices.

ABOUT THE AGRICULTURAL ECOSYSTEM SERVICES MARKETPLACE

Noble's ecosystem program will be farmer- and rancher-oriented, focusing on maximizing sustainable agricultural production systems and creating sound social, economic and environmental outcomes that

benefit farmers and ranchers, their families and communities, and society at large.

Flexibility and innovation will be required in the design and implementation of protocols that meet the needs of farmers and ranchers who are managing biological agro-ecosystems on a daily basis.

While the initial focus of the program will be on monetizing soil carbon and water quality and quantity, the program will expand over time to include additional environmental and ecosystem service attributes from working agricultural lands.

BUILDING ON THE LAND STEWARDSHIP PROGRAM

Noble operates a Land Stewardship Program that has engaged an initial set of ranches covering 70,000 acres in the U.S. Southern Great Plains (Oklahoma and Texas). The program focuses on driving land stewardship outcomes by optimizing producer livelihoods and economic benefits.

The Noble Land Stewardship Program will be the framework that houses the protocol and the decision-support tools to guide farmers through the process of generating ecosystem service credits. In addition, early partnerships are being formed with other key agricultural sectors to broaden the effort's scope and benefits.

THE PLAN

Noble will contract for the development of both the guiding protocol and a go-to-market business plan to be developed in 2018. This effort will address the technical needs of the program, including methods for monitoring and verification as well as an assessment of credit supply, demand and financing structures to sustainably support this program.

All of this will result in a business case and market analysis of the ecosystem service credits to be monetized via the program. Pilots will be conducted in early 2019 with the national rollout of the program to occur in 2022.

FOR MORE INFORMATION:

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