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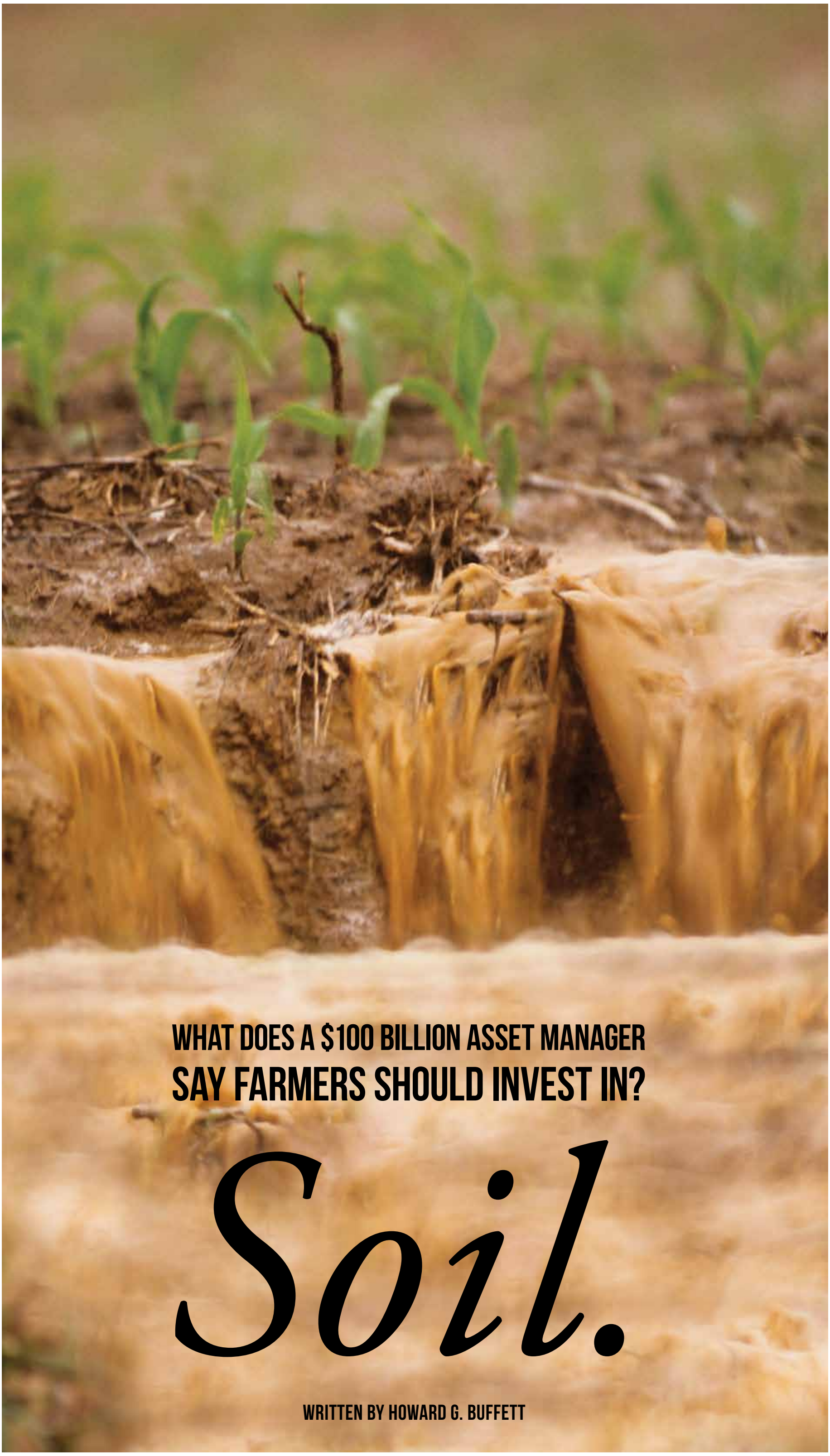
BROWN REVOLUTION
SAVE OUR SOILS, SAVE OUR FUTURE



WHAT DOES A $100 BILLION ASSET MANAGER SAY FARMERS SHOULD INVEST IN?

Soil.

WRITTEN BY HOWARD G. BUFFETT

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JEREMY GRANTHAM, CO-FOUNDER AND CHIEF INVESTMENT STRATEGIST OF GRANTHAM, MAYO, VAN OTTERLOO & CO. LLC, manages one of the world's largest investment funds. Recently, he described soil degradation as one of the largest threats facing humanity.

As farmers, we think we know a lot about soil, and we probably do in terms of our own farms. However, when viewing soil quality and productivity on a global basis, there is a rude awakening.

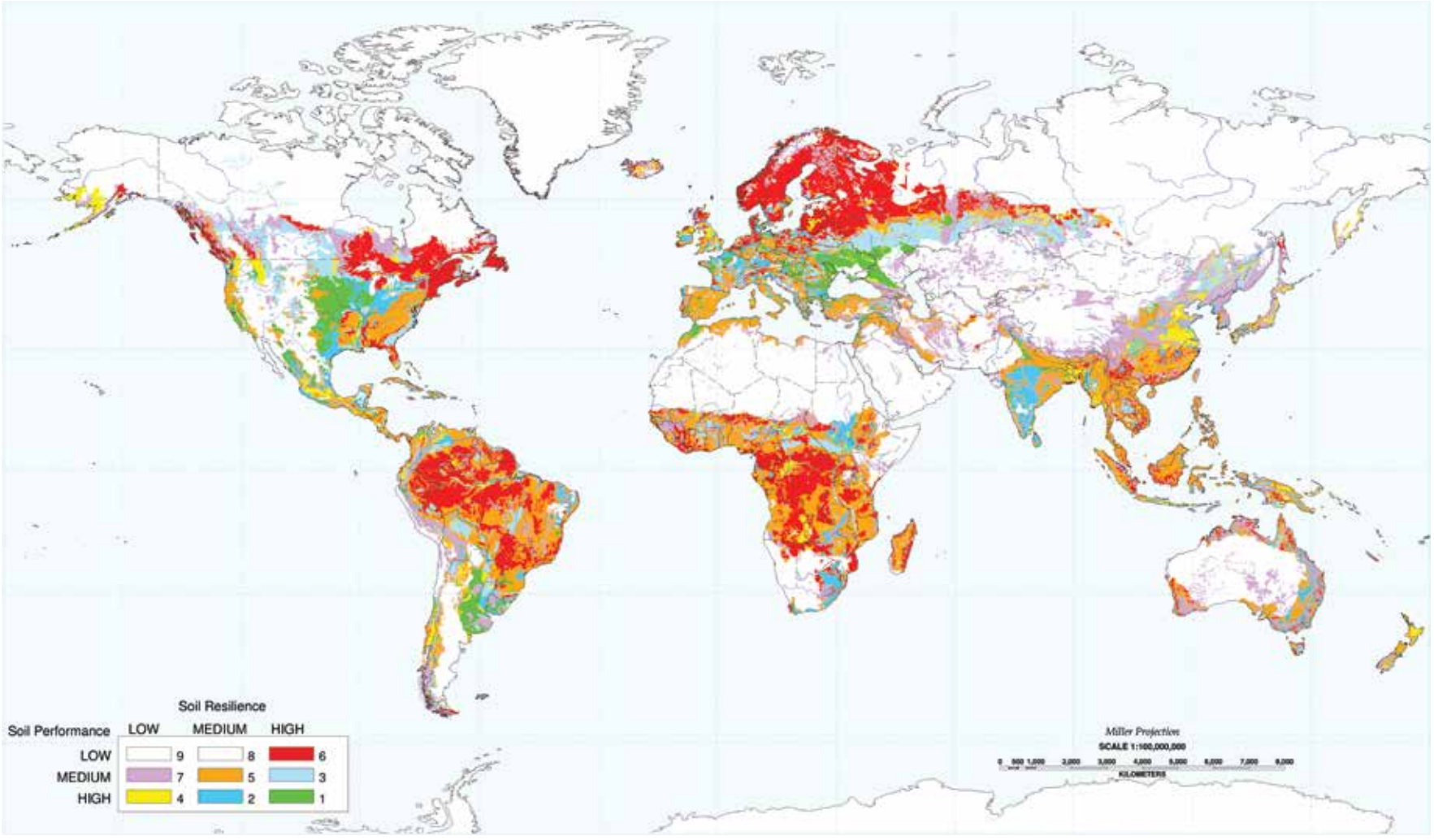
In the graphic below, an assessment of world land quality provides a clear picture of the challenges we face in meeting global food security—after all, soil characteristics such as water-holding capacity and fertility are the beginning and the end of successful food production.

What is the first thing a farmer considers when purchasing land? Productivity.

Productivity is based on the soil. In the United States, soils are placed into capability classification systems that describe their suitability for use in crop production. When I describe our farms in Nebraska and Illinois, the first thing I say is that they are mostly Class I soils. So, what do soil capability classes mean if we are concerned about global food security? A lot!

There are nine major classifications of soil quality, Class I having the most favorable attributes for crop production, and Class IX possessing the least desirable. Soils that have high capability in their native or virgin conditions can easily deteriorate into lower categories if they are abused or poorly farmed.

INHERENT LAND QUALITY ASSESSMENT



Source: U.S. Department of Agriculture, Natural Resources Conservation Service, Soil Survey Division, World Soil Resources, 1998

Soil degradation translates into a huge challenge for the world's farmers. Soil is like a bank account—if we keep withdrawing, we will eventually face agronomic bankruptcy. Soil is a complex biological ecosystem. Soil health is a lot like human health—we do not always understand what is happening, and we do not always know how to solve the problem when something goes wrong.

Therefore, the best starting point is to take care of what we have. The Brown Revolution is an educational campaign to increase awareness of the importance of soil and the risks associated with failing to safeguard this critical asset. In addition to our campaign, our Foundation is supporting efforts to provide new ideas and technical information to protect our soil.

ESTIMATE OF POPULATION IN DESIGNATED LAND QUALITY CLASSES

LAND QUALITY CLASS (LQC)	LAND AREA		POPULATION	
	MILLION KM2	PERCENT	MILLIONS	PERCENT
I	4.09	3.2	337	5.9
II	6.53	5.0	789	13.7
III	5.89	4.5	266	4.6
IV	5.11	3.9	654	11.4
V	21.35	16.3	1,651	28.8
VI	17.22	13.2	675	11.8
VII	11.65	8.9	639	11.1
VIII	36.96	28.3	103	1.8
IX	21.78	16.7	625	10.9
GLOBAL	130.6	100.0	5,759	100.0

Left: The best agricultural soils (Class I, II and III) are confined almost exclusively to the temperate zone. Class IV, V and VI occur mainly in the inter-tropical areas. Class VII, VIII and IX are in fragile ecosystems and include tundra and desert regions. Only a quarter of the world's population lives on land with a big potential for grain production. Roughly half of the global population inhabits land with significant agricultural constraints, including long periods of soil moisture stress. And a quarter of the world's people must survive on lands that are considered unsuitable for grain production.

ABOUT THE AUTHOR

Howard G. Buffett is a farmer and Chairman and CEO of the Howard G. Buffett Foundation. He has farmed for over thirty-five years, and the Foundation has invested over $150 million in research to improve agriculture and an additional $350 million in agriculture-related programs globally.