



## If Not Technology, What Is The Solution To Small-Hold Farmers' Poverty and Hunger?

*"Your life value equals your care and deeds for others."*

Dedicated to *Martin Luther King Jr. Day*, celebrated on Monday, 16 January 2023.

We (people) are imperfect creatures who created an imperfect world. Now we want to improve it. But how?

We listed global challenges, i.e., 17 SDGs and others, which we try to deal with primarily through applying advanced **technologies**.

Will that do the job? Based on my experience, not at all!

As has happened for decades in the agro sector of emerging economies, we are doomed to fail unless we consider *the human factor*.

I view technology as an extension of human ability; hence, it is not stand alone but depends on “the human factor.”

Technology has its downsides and upsides, but it has no will of its own. It is as good/worth or bad/worthless as the person using it.

Hence, if we want a better future, we should learn to control and manage *the human factor* and provide it with positive incentives to do “the right thing,” not only for the “ME” but first for the “WE.”

***"Make a career of humanity. Commit yourself to the noble struggle for equal rights. You will make a better person of yourself, a greater nation of your country, and a finer world to live in." Martin Luther King Jr.***

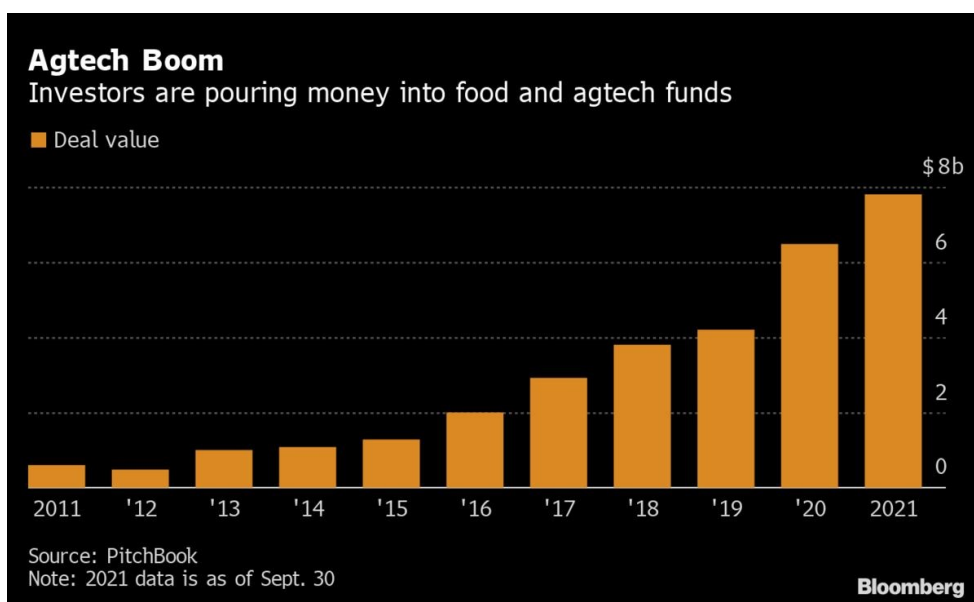
This week (16-20 January 2023), Davos hosted *The World Economic Forum*.

We say that "money makes the world go round," and if so, then Davos makes the world go round, and our lives too.

It would be naive on our part to believe we can shift farmers in emerging economies from poverty to prosperity without considering the element that motivates people, businesses, countries, and the world into action – Money.

Farmers in emerging economies will shift from poverty (less than \$1.9 per day) to prosperity the moment it makes sense from a **business** (i.e., money) point of view. Until then, things will remain more or less as it is now; poverty, hunger, and continued frustration.

Now we should ask; in the era of technology, is it possible that investors, business people, and companies show little interest in the agro sector in emerging economies because of the “lack of technologies?”



Investments are going to where investors expect high ROI.

Well, we see a growing stream of investments in the agro sector, but it is directed only to where investors expect high ROI.

We can conclude that today, investors don't see (yet) small-hold farmers as a potentially high ROI investment.

My non-politically correct answer is;

It is evident that under current conditions, Davos cares little about the agro sector in emerging economies. The reason is simple and obvious; it doesn't see how it could benefit financially.

Now that we have gained the courage to face ourselves in the mirror let's think about how we change this.

A clue is that the change will not come from developing better technologies. Instead, change will arrive as we design better our business models and incentives for imperfect **human nature** and its pursuit of money and power.

Presented below are three (out of many) fundamental human characteristics, followed by simple principles that can help us better harness human ingenuity for the betterment of humanity, and more specifically, agriculture and farmers.

***"Change does not roll in on the wheels of inevitability, but comes through continuous struggle." Martin Luther King Jr.***

# FUNDAMENTAL CHARACTERISTICS

Relevant to our discussion are three fundamental human characteristics:

**(1) Self-care** – We care most about ourselves. We view the world through our eyes and empathize with our struggles, not those of others. This is reflected in the "ME, me, me" attitude.

**(2) Caring for others (an extension of the ME)** – In descending order, we also care about others - family, tribe, nation, and the rest of the world. This characteristic is often in conflict with the first characteristic. Then priority is given to "Me" in its broader sense (i.e., Me over Family, Family over Tribe, Tribe over Nation, and Nation over the World). Hence, leaders (even global ones) would choose to do what is good now for their nation, even if it endangers our species' future existence.

**(3) Technology and tools** – We can develop and use technology and tools. We do it even when we know it is against our long-term benefit, e.g., weapons. When we realize we did something terribly wrong, we try to “correct” it by doing something good, e.g., the Nobel Prize.

## THE SELF-CENTERED HUMAN NATURE

The global challenges, including poverty, hunger, and global warming, resulting from the imbalance among the above characteristics. In other words, it reflects our self-image imbalance.

We view everything around us as a diner perceives a restaurant buffet; “*It exists to serve Me,*” and technology is the tool to serve Me.

We grew up believing that technology is magic that can solve the world's problems. So we apply technology, providing little thought to the non-immediate future.

Then, like a child, we are surprised to find ourselves in a global future-threatening situation.

Here are two examples of the use of technology in agriculture that brings the end closer to us all.

### **\*High ability to design and produce chemicals.**

What do we do with it? Manufacture millions of tons of poisonous and dangerous pesticides and fertilizers, which are then delivered in various manners (e.g., sprays, fertilizers) to our ecosystem (air, water, and soil) and food.



We are then surprised by the results; poisoning of the soil and the environment, disturbing biological balance, pest outbreaks, reduced productivity, faster release of greenhouse gases, health risks due to pesticides and fertilizers in the air we breathe, the water we drink, and the food we eat.

Oh yes, we began using chemicals to prevent poverty and hunger, yet those exist in massive numbers, which is why they are SDGs #1 and #2.

**\* Mechanical equipment.**

Today's "professional agriculture" is about "efficiency." We plow our (larger) fields more efficiently than in the 1930s [Dust Bowl](#).

The results surprise us though they shouldn't; we damage the soil texture, kill microorganisms in the soil, cause soil erosion, and reduce local water absorption in the ground, which causes soil erosion, floods, and reduced soil fertility.

We end up with unsustainable agriculture, which increases global warming (instead of balancing it). It offers no viable solution to worldwide poverty and hunger among farmers in developing economies.

We invent new chemicals, technologies, and methods and then market those as fast and as much as we can, by professional business leaders, like the CEOs of the agrochemical companies, who think first and foremost about the next quarter's report and their own bank account rather than the common good and long-term impact.

As we speak, global warming keeps rising, and poverty and hunger remain the SDGs #1 and #2.

Yet, our incentive system pushes CEOs of oil and chemical companies to increase production of the same things that put at risk our ecosystem and the future of our species.

We must end this suicidal behavior by using business incentives that would attract the Davos people to invest in farming in emerging economies based on an updated set of priorities, one that thinks of the common good.

For example, we often subsidize African agricultural activity by incentivizing companies to sell small-hold farmers' technologies and services.

That is ineffective if we don't connect the subsidies to the outcome, i.e., farmers' increased income or profit.

At the same time, it can be highly successful when subsidies are directly linked to the economic impact felt by farmers and at the national level.

*"We must live together as brothers or perish together as fools." Martin Luther King Jr.*

## HOW AND WHAT TO DO?

Our ability and need for innovation should not (and can't) be suppressed.

Instead, we should design our incentives for political, social, and business leaders so that the success of the "Me" results from the "Our" success based on sustainable principles.

In agriculture, I suggest we start with the following three principles:

- \* **Non-harm:** using materials, methods, and products that do not harm - us, non-target organisms, and the environment.
- \* **Constant improvement:** measure and improve agreed international indicators, such as biodiversity, soil health, chemical use, and greenhouse gas emissions.
- \* **Availability and accessibility:** 97% of farmers are non-professional smallholders. Future agro-tech solutions must support farmers' transition from poverty to prosperity based on sustainable business-oriented solutions.

*"We must accept finite disappointment but never lose infinite hope." Martin Luther King Jr.*

We have repeatedly failed to help billions of people in emerging economies escape poverty. It doesn't mean this is hopeless, but the contrary.

We are an innovative species; when we focus on achieving a goal, even getting to the moon, we eventually reach it.

Our problem was never the lack of technologies but more in our state of mind, what we set as goals and how we intend to achieve those, i.e., the human factor.

Technology is only "technology"; it can positively or negatively impact us depending on how we use it.

For example, in the agro sector, there are endless advanced technologies. Still, due to the lack of proper business models, most farmers, i.e., small-hold farmers, have no access to those technologies, for they are unaffordable.

Furthermore, because of using the wrong set of global business incentives, many technologies, practices, and chemicals today are harmful to us, non-target organisms, and the environment.

Technology was and will be critical in helping us solve global challenges. It can play a more positive role if we use it properly in the framework of novel business models and principles.

While tens of thousands of companies and hundreds of conferences deal with the technological challenges and opportunities ahead, there are very few developing the foundation for using novel technologies, which are the business models and guiding principles of use.

***"Those who are not looking for happiness are the most likely to find it. Because those who are searching forget that the surest way to be happy is to seek happiness for others." Martin Luther King Jr.***

This is where the [International Conference On Business Models In Agriculture \(IBMA\)](#) enters into the picture to illuminate and change the set of mind as to the root causes of farmers' poverty and hunger.

Thanks to the IBMA conference, people are aware of the critical missing element: dedicated business models and work principles, e.g., regenerative agriculture, for the agro sector, mainly for use by small hold farmers.

The IBMA conference brings us this long-needed change of state of mind. It suggests that regardless of how superior the technology is and how much funds you have, you will fail if you use unsuitable business models, e.g., a good example is the AGRA program which failed.

The IBMA conference is **The Place** to meet and discuss business models that have failed and ones that look promising, have face-to-face meetings with experts and initiate business relationships.



The underline of the IBMA conference is that we don't need more of the same, and the Me, Me, Me attitude doesn't work for ME or US.

It brings life to a global agenda that places "the common good" and the environment alongside the "personal benefit" of business people, politicians, and other managers and leaders.

A working, field-proven example of such a working novel business model is that of Dream Valley. It is based on the Israeli agricultural model with over 70 years of proven success.

Using available technology (the Freedom, by Biofeed) with a novel business model, the Dream Valley program impacted Senegal's mango industry like never before.

During the program period, Senegalese mango growers **doubled** their income, and Senegal **doubled** its mango export value to the EU (from € 12M to € 24M).

This is an example of how understanding human nature helps us design a proper business model, which swiftly impacts farmers' livelihoods and national economics.

Now Dream Valley is going global. This is your chance to join forces with our partners and us and invest in a better future for smallholders while providing investors with a high ROI.

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My request from you, if you enjoyed the column, share it with three friends/colleagues and share your insights with me.

## TAKEAWAYS

- **MORE TECHNOLOGIES** is not the bottleneck to shifting small hold farmers from poverty to prosperity, and hence not the solution.
- **THE PROSPERITY** of small-hold farmers will result from applying novel business models incentivizing investing in them.
- **BRAVE LEADERSHIP** is essential for taking necessary steps for change.
- **THE "ME SUCCESS"** should depend on and be inter-connected with the global "WE SUCCESS" based on a sustainable business-oriented foundation.

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**\*\*\* *Mental and Economic Freedom Are Interconnected* \*\*\***

See you soon,

Nimrod



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**P.S.**

If you missed it, here is a link to last week's blog, "[Can We Prevent The Impending Food Crisis Due To A Lack of Farmers?](#)"

Link to [recent columns](#).

**P.P.S.**

[Start-Up Nation Central welcomes delegation of UN ambassadors for Israeli innovation](#)  
(The Jerusalem Post)

**P.P.P.S.**

[The IBMA](#) conference provides the stage to share your experience with agriculture business models and learn from others.

**P.P.P.P.S.**

[Dream Valley](#) is a field-proven disruptive business model based on the successful Israeli model. Contact me if you view yourself as a potential investor, business partner, or client. [Email](#), +972-542523425 (WhatsApp/Text)

**P.P.P.P.S.**

Please look at the video series "[The Agricultural Gap](#)." I explain the historical roots of the agricultural gap between African and Western countries with short videos.

I see this video series as "uncompleted," as I am waiting to gain more confidence before completing the chapters with The Solution, as I perceive it.

If you like it, remember to *share* it with those who need to see it and *Subscribe*.

***Change Begins With A Decision  
That The Existing Reality Is A Choice  
And Not A Decree of Fate***