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# IS THE AGRO-INDUSTRY BEFORE OR AFTER ITS PEAK?

"Revolution is more than a word; it is manifested in reality. In agriculture, we have seen progress but not a revolution."

#### HAPPY NEW JEWISH YEAR TO YOU, MY FRIENDS ©

For thousands of years, humans fought diseases and sicknesses using potions, bloodletting, home-produced medicine, witchcraft, etc.

This was done for centuries; the life expectancy remained below 40 years. Yet, they were sure it could never get any better.

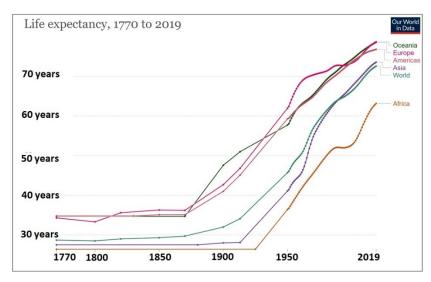
Then, only 150 years ago, Louis Pasteur (1822-1895) discovered the connection between bacteria and disease.

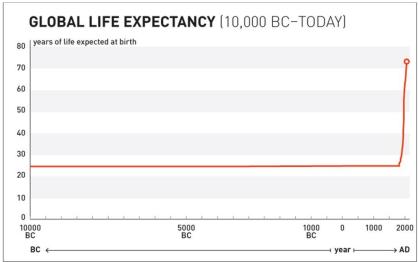
This led him to a series of developments, including sanitation to prevent the spread of diseases (e.g., washing hands), the development of antibiotics and vaccines, and the sterilization process named after him, Pasteur.

Is there anyone in developed or non-developed economies who doesn't practice personal Sanitation or uses Antibiotics, Vaccines, and Pasteurized products?

Not a soul. Everybody practices the above.

Looking at the life expectancy graph, we see the "Before" and "After" impact of Pasteur's work. Hundreds of millions owe their lives to Pasteur.





The goal of curing (today called 'medicine') was always to save lives, but people fell short of achieving that goal without proper understanding and knowledge.

However, once a critical discovery was made, Life Expectancy rapidly grew from  $\approx 30$  to over 70 years.

Today's medicine is successfully focused on preventing sickness; hence, the number of people on the planet is growing exponentially.

In summary, the revolution brought by Pasteur's findings and development is felt to this day and seen in the growth rate of the affected factor; people's longevity and numbers.

## IS MEDICINE THE EXCEPTIONAL?

The computer industry is relatively new. After achieving some development breakthroughs, in 1975, Gordon Moore, one of the pioneers of integrated circuits, predicted that the number of transistors that could fit on one chip would double every two years.

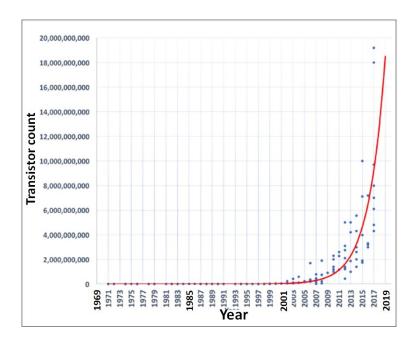
This prediction, which was found to be realistic till those days, is named "Moor's Law."

The figure below presents the prediction and the reality, which fits it perfectly.

In summary, the revolution brought by Computers is seen and found everywhere we look around us, including toys, kitchen/house equipment, cars, work and scientific machinery, phones, etc.

This impacts the number of computers and their calculation ability, which never stops growing.

Graphs of this type can be found in any field where Revolution occurs, whether in technology, knowledge, or services.

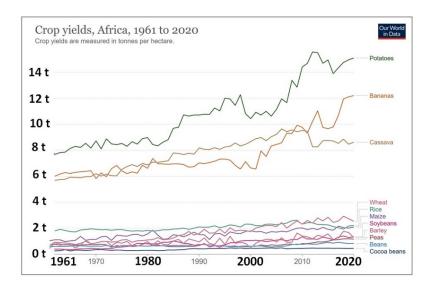


## **AGRICULTURE REVOLUTION?**

Now that we have a visual tool to measure the level and extent of a Revolution, let's look at the situation in the agriculture sector.

Look one more time at the two graphs above, i.e., life expectancy and transistor count, and then look at the graph below, presenting the yield per hectare of 11 major crops.

Do you see any resemblance?



Yes, we see continuous growth in some crops, as in any "normal" industry.

But, do you see any sign of Revolution or frog-leap of any kind!?

The answer is straightforward – NO.

Look at the Crop yields graph once again, and tell me if we can point, as we can in the health and computers industries, where the "outstanding impact" of Pesticides, Fertilizers, Irrigation, and Genetically modified seeds began.

We can't do it even if trying hard!

"The Green Revolution" in the agro sector allegedly was from 1967 to 1978.

Do you see it?

You don't!?

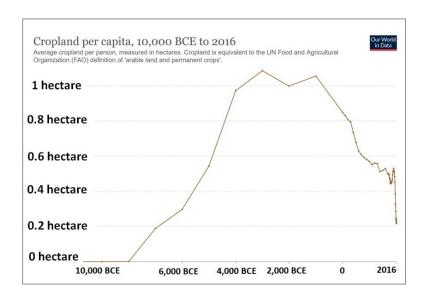
Following "The Green Revolution," did we see a dramatic increase in farmers' income and a parallel decrease in poverty, as seen in the death rate and longevity following the revolution in the medical industry brought by Pasteur?

#### Again, NO.

Looking at the below Cropland per capita figure, it is frustrating to learn that with all the technological "revolutions" in the agro sector, we use today the same "Crop-land per capita" as our ancient fathers used 8,000 years ago.

Please take a moment to reflect on that, to feed a person we use today the exact size of land as our fathers used 8,000 years ago.

I wonder if one can call this A Revolution and if it will help us feed our planet's growing population, suffering ecological, environmental, and life-threatening climate challenges.



Ask any child why he is not ready to keep the cellphone which is two years old or maybe use the cellphone of his father from a few years ago,

They would tell you that they are not in the same league; the new models are far away improved in every possible aspect.

Ask any farmer if his yield or income is today "so improved" from those 10, 20, 30, or 40 years ago, and you will be surprised by the answers.

I know the answer for farmers in the Global North, and I ask farmers in Global South the same question.

Regardless of their geographic locations, most farmers reached a peak of yield and income decades ago and now merely try to keep similar levels and... survive.

In some cases, income has even dropped dramatically, as is the case with millions of mango growers in Africa and Asia that 10-20 years ago used to have double the income value they receive now.

## **GENERATION OF THE FLOOD**

We are privileged to live in an era where we see the alchemical "wizards" companies of pesticides and fertilizers fading out.

It is now apparent and is supported by easy-to-understand graphs;

the agrochemical companies are not the solution but the barrier standing between the safety of the future we wish to reach and the current unwanted and undesired limited food supply, health risks, and extended poverty.

We are lucky to live in this era where knowledge, experience, and data present superior technological and agro-practice approaches - overcome the downsides of the old eco-hazard approaches brought to us by agrochemical companies.

We are privileged to have a sophisticated set of novel and efficient agriculture practices worldwide.

Those practices don't view the environment as an enemy but as an ally and allow further expansion without harming nature and the environment.

Five hundred fifty (550) million smallholders supporting 2.2 billion people who struggle amid continuous suffering, poverty, and hunger are depressing testimony to the failure of the current approach to fight poverty and hunger.

Our parents' generation thought the best and coolest thing was a combination of a cigarette, a car with a 2,000 cc engine, fertilizers, and DDT sprayers.



In contrast, we see how these symbols of "progress" and success are unsustainable, unhealthy, a danger to the future of the human race, and will not allow our children to survive.

Going back to our main topic - is there a way we can also see an exponential increase in farmers' production and income?

## **SPRING IS COMING**

The first step in "fixing the world," making it better, is to understand and accept that **there is a problem** that requires fixing.

Only then can we define the problem and work to solve it.

In 1994, when I began my journey to bring transformation, there was no recognized expert I could name who thought, "The system is broken and needs fixing."

As a renowned Prof. told me, "everything is working, everybody is happy, so why change."

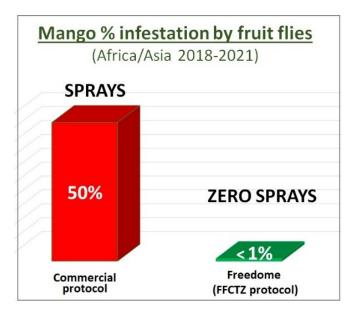
I am glad that now the attitude is changing, and millions understand that we have been walking in the wrong way for too long.

This is a day to celebrate the beginning of shifting our efforts to build a healthier, prosperous, and safer future for everyone, including the 2.2 billion people whose livelihood depends on smallholder farmers.

But, are there alternatives to chemicals?

#### YES!!

We now have the knowledge and tools to improve agricultural results and increase agricultural production per hectare without the need to poison the food and the environment.



We have everything needed to turn "Agriculture" into the long-expected and necessary "Agriculture Revolution" to support the human race's future existence.

Although we have everything in terms of improving technology and services, we are still missing two pillars to perform *The Agriculture Revolution*.

Those are tailor-made dedicated (1) Business models and (2) Ecosystems for smallholders in non-developed economies.

Pasteur wouldn't be able to come up with his discoveries and solutions if he had not known the existence of fungus, discovered by Robert Hooke (1665) and germs by Antoni Leeuwenhoek (1676).

Though we can't see business models and ecosystems, they dictate the outcome of the success or failure of our efforts.

If those are ignored, misunderstood, or mishandled, they may cause a premature failure or "death" of projects, regardless of the funds and technologies invested in them.

The "potions" of the agro sector are called Sprays, Pesticides, Fertilizers, etc.

The ones who provide it to us wish us to believe that if we are not "strong, beautiful, and healthy," it is because we still need to drink more of the potion, "just a bit more and you will be successful. Try to drink it with a "novel" spraying drone, AI, and a state of the art application."

I respect technologies and services; we need them and can't do without them. But, as the graphs show, they bring slow incremental advancement that fails to get the required revolution.

We do not need more of the same promises of "novel technology"; we need results presenting graphs similar to those seen and experienced in health/medicine and the computer industries.

The impact and benefits of a true revolution are seen almost instantly, as happened to billions of users of sanitation, antibiotics, vaccinations, computers (i.e., cellphones), etc.

Success attracts investments, and indeed the fields of medicine and computers are not short of investors. In contrast, the agro sector is very short of investors.

This can be rapidly changed when applying the three pillars of the Israeli Agriculture Model after tailor-made each of the pillars based on the particular requirements of each project:

- 1. Technologies and services.
- 2. Business models.
- 3. Ecosystems.

The combined impact creates a chain reaction, as already demonstrated in Israel, Africa, and India, that has the power to reach every person on the globe.

The chain reaction would impact the following and more -

- \* A rapid increase in smallholders' income and profit resulting in a sharp drop in poverty and hunger.
- \* An increase in productivity per hectare, resulting in a drop in the need for arable land.
- \* **Reverse** of desertification trend and increase eco-friendly food production, positively impacting CO<sup>2</sup> emissions and global warming.
- \* **Attraction** of strategic and tactical investors to bring in hundreds of \$ billions to further accelerate the development.
- \* Would significantly impact the lives of all farmers.

## THREE PATHS AHEAD

To create and bring the agriculture revolution to the doorstep of your country and its farmers, so they enjoy the benefits listed above, you should simultaneously apply **The Israeli Model to its three pillars: technology/services, business models, and ecosystems.** 

I am confident you don't need an introduction and explanations regarding technologies and services.

However, most people/companies/organizations/countries need clarifications and support in understanding, designing, and applying tailor-made dedicated business models and ecosystems.

The road to success is open before everyone. Depending on which group you belong you can choose one of the three paths to act, change, and lead:

- (1) Start the walk and figure out challenges and solutions on your own while you face them.
- (2) Join the <u>International Conference On Business Models In Agriculture</u> (IBMA), 27-29 March 2023, meet global leaders and experts, and deepen your understanding.
- (3) Join <u>Dream Valley</u> journey; a company founded to spread through action and demonstration the gospel of eco-friendly, sustainable, healthy, and profitable agriculture.

The Dream Valley model has the three pillars of the Israeli Model already built-in, enabling farmers to double their income.

Note Dream Valley is not a charity but is based on robust foundations of a novel business model, enabling investors, organizations, and countries to safely invest while expecting a handsome ROI.

I warmly advise you to register to IBMA, where the number of sites is limited, and invest in Dream Valley, where the window for first-round PRIVATE investment will open at the end of the months, limited in time and investors.

Agriculture is not the problem; it is the solution, and as in medicine and computing, practicing agriculture, which includes the use of advanced business models and ecosystems, will result in a global impact, affecting most or all of the UN SDG (including the eradication of poverty and hunger).

As agriculture is the most significant impact of man on the environment, a breakthrough in agriculture would also have positive long-term implications for global warming.

The revolution in food production will include technologies, knowledge, and services but will be driven by powerful – tailor-made dedicated business models.

The time to shine has arrived; now is your time to join and lead the change.

## **TAKEAWAYS**

- > TECHNOLOGY/SERVICES are enablers; they don't define "A Revolution"; results and impact define "A Revolution."
- > THE AGRO SECTOR didn't experience "A Revolution," as we see when analyzing other sectors.
- ➤ THE REVOLUTION IN AGRICULTURE will result from developing novel business models and ecosystems using suitable technologies and services.

#### \* BONUS VIDEO – Meeting Yacuobuo



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

See you soon,

Nimrod



Text me: +972-54-2523425 (WhatsApp), or e-mail nisraely@biofeed.co.il

#### P.S.

If you missed it, here is a link to last week's blog, "If You Want A Legacy; Be Yourself, Be Different, Be The Change."

Link to recent columns.

#### P.P.S.

Please look at the video series, "The Agricultural Gap." I explain the historical roots of the agricultural gap between Africa 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, don't forget 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