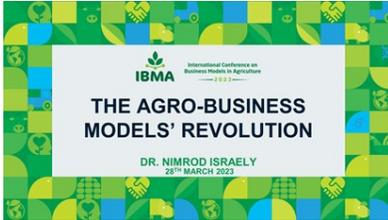


THE IBMA 2023 CONFERENCE, KEYNOTE SPEECH, 28-3-2023

Dr. Nimrod Israely, Kigali, Rwanda



Dear sponsors, guests, partners, distinguished lecturers, delegates, and attendees of the International Conference on Business Models in Agriculture (IBMA) 2023, ones coming from near and far, I welcome you to this momentous event.

After two years of intensive work on this conference, I am delighted to be here at this historical, first-in-its-kind event, which opens a new era with incredible opportunities.

It introduces critical novel tools in shifting farmers from poverty to prosperity; the agro-Business models.

We meet in a country that not long ago knew extreme internal hardship, a continent of present poverty and malnutrition, and a world lacking the leadership required to save itself from destroying its blue planet.

We are here to carve the outline of our future, pave a path to farmer's prosperity, and invite those who wish to see poverty turned into prosperity to join us in bringing happiness generated by a thriving and vibrant agro sector.

We are at the forefront, leading, and we will succeed!

How do I know?

Because we know too well the taste of failure, which brings poverty, and we have had enough of it.

Because we want to succeed, we deserve to succeed, and we can't fail 550M small-hold farmers who, for too long, have waited for salvation.

Our Vision

Is to see small-hold farmers live in economic prosperity, growing an abundance of healthy food in a healthy environment.

Our Mission

Is to help develop and implement dedicated business models for small-hold farmers.

Our Goal

Is to help small-hold farmers have dedicated advanced business models which will change their status to become part of the middle class.

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I encourage you to meet discuss ideas, and find ways to work together; this why we insisted on having this event in person and not as a virtual one.

I am here for you; let me know whenever my involvement and support are needed.

Let us remember why we gathered here,

WE HAVE A WORLD TO SAVE AND THE LIVES OF 550M SMALL-HOLD FARMERS TO CHANGE.

And now, let's get to business, or should I say to Business Models.

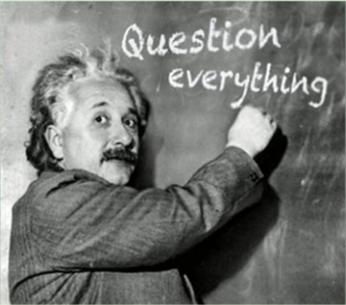
What is a "Business Model"?

A business model describes how we intend to turn our work into income and profit.

How do we know that farmers use outdated business models?

Because they produce something everybody needs, i.e., food, while they remain in poverty.

QUESTIONS



IBMA International Collaborative on Business Models in Agriculture

You are here because you care about small-hold farmers.

You are here hoping to find answers to your most troubling problems.

But the **quality** of the **answers** we get is as good as the questions we ask.

Therefore, we shall begin by asking questions.

The first question I ask is - ***Do we ask the right questions?***

ASKING THE RIGHT QUESTIONS

There are three superpower questions: ***HOW***, ***WHAT***, and ***WHY***.

The HOW and the WHAT are “technical” types of questions.

For example:

HOW do we get to the moon?

Or WHAT actions should we take to get to the moon?

In contrast, the ***WHY*** questions are profound, looking to reveal the underlying mechanism; **THE ROOT CAUSE**.

Understanding the ***WHY*** enables us to develop faster and better the ***WHAT*** and ***HOW***.

For example, scientists and engineers had to understand the underlying **Law of Physics** before we could land on the moon.

To this end, they had to ask the most fundamental questions starting with ***WHY?***

1. WHY do objects at rest or in motion tend to stay that way?
2. WHY does the acceleration of an object increase with force and decrease with mass?
3. WHY do all forces come in pairs, with equal magnitude and opposite directions?

By the way, today we call the answers to these questions – ***Newton’s Laws***.

Thanks to Newton’s “WHYs,” 250 years later, we could land on the moon and explore space.

We reached the Moon and Mars, but what about the **urgent** problems here on Earth?

We still don't know the answers to the most critical questions that affect the lives of 550 million small-hold farmers, supporting 2.2 billion people –

WHY is there persistent poverty among farmers?

WHY is this phenomenon so common?

WHY some farmers and communities are impacted by it more than others?

WHY do farmers' communities remain impoverished even in the era of innovative technologies?

Can you think of more fundamental WHYs that we should ask?

To answer the above questions, I wish to share the personal stories of two wise people who began life in poverty.

Yet, one remained in poverty while the other became prosperous.

We should wonder why didn't both of them remained poor or became prosperous.

Their stories are not unique but represent many others.

They opened my eyes to ask critical questions that led to unexpected answers, solutions, and, eventually, extraordinary positive results.

Their stories inspired me and made me more optimistic than I ever was.

THE FIRST STORY: THE STORY OF YACUOBUE

It was noon, and I stood in the middle of a mango orchard. This region is blessed with the right combination for prosperous agriculture and growing mangos.

Mango orchards once covered the region, but now, most orchards are cut or burned because of high fruit infestation by pests, mainly fruit flies, 50% to 80% fruit infestation, and yield loss!

People don't buy infested fruits, and farmers can't sell those, leading to substantial economic losses and increasing poverty.

I am now standing in the middle of one of the last mango orchards in this region.

Next to me stands Yacuobue, a small-hold farmer, the owner of this orchard, and an English teacher to the village children.

Yacuobue, a strong man in his 30s, was born into poverty and has remained so till now.

I ask my driver, (assigned by the National University of Agriculture), who is now my cameraman, to video us as I began the standard routine of summarizing fieldwork with a farmer.

Yacuobuo begins sharing his story.

He says -

“Once, I had little problems with pests. But ten years ago, things became a problem; the fruit flies infested many of the fruits.

Three years ago, the women buyers called and told me - all the fruits were infested.

*Since then, **I do not sell anymore! ZERO INCOME! I GAVE UP!***

Before I stopped selling, my income was 15K CFA.

*Then it went down to **zero!***

We are now less than a week before harvest.

Yesterday I visited my neighbor; he now suffers 80% fruit loss.”

Then, the look on Yacuobuo’s face changes; his face glows, and he smiles as he presents this year’s results -

“We have now finished monitoring my mango orchard and have seen only 3% infestation.

No sprays and no infestation (N.I., let me repeat this; “no sprays and no infestation!”).

In 5 days, I will start harvesting the fruits. I expect my income this year to be around 100K CFA! “

Yacuobuo stops for a moment, and then thinking of his future, he adds what seems to be his conclusion –

“(I AM) COMING FROM ZERO TO SOMETHING.”

He pauses, then adds a second statement -

“MY INCOME, I RELY ON YOU.”

I think to myself – This is a heavy burden that he has placed on my shoulders.

Then, a quick calculation – 100K CFA is infinitely more than zero and 670% more than the 15K CFA income he had before.

That is remarkable growth!

One can say - **AMAZING RESULT!!**

Yacuobuo's words echo in my ears, *“I am going from zero to something.”*

I try to hide my excitement; I am overjoyed.

Here I am, standing in this mango orchard, following a Presidential invitation to work in this country.

The invitation came after meeting the PMs of India and Israel, gaining world recognition for the breaking-through ZERO SPRAY pest control technology developed by Biofeed, a company I established 23 years ago to develop zero-sprays, zero-chemicals pest control.

Yet, after 23 years of work on this project, Yacuobuo's words surprised me; they seem to be the sweetest seven words I could hope for - *"I am going from zero to something."*

Back in the hotel, a couple of hours later, I look again at the outstanding numbers.

This time I converted from CFA, a currency I was unfamiliar with, to US dollars.

I soon find out that 15K CFA is 24 \$, and 100K CFA is 162 \$.

I am confused and re-run the numbers. The results don't change.

Only 24\$ is Yacuobuo's income before the program, and only 162\$ under the program with the help of the breaking-through technology!?

Yes, the income increased by nearly seven times, but still, I don't get it; so little income **WITH** the program!?

I was always sure the problem was the high fruit damage and the inability to purchase the proper pest control technologies.

YACUOBUE (AFRICA, 2018)

670%
15K CFA → 100K CFA
24\$ → 162\$

"COMING FROM ZERO TO SOMETHING."

"MY INCOME, I RELY ON YOU."



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But now I see that Yacuobuo's income remained low despite the income increase.

I summarize the key data –

- Yacuobuo received the technology plus the service free of charge – zero expenses.
- He didn't spray anything - his mangos are pesticide-free.
- Minimal yield loss (3%).
- His produce is *Regenerative Export Quality*.
- He increased his marketable produce from zero to a maximum.
- He increased his income by nearly 700%!!!

I stop and ask myself; *can we ask for anything better!?*

This is too good to be true; I never imagined we would get such terrific 670% income-increased results.

Yacuobuo is happy with the results, but I realize that Yacuobuo and his family will remain in **extreme poverty**.

Furthermore, I understand that this model is unsustainable and not scalable, as no one would repeatedly finance the Technologies and Services to all farmers.

I remind myself of my goal - *helping farmers shift from poverty to prosperity*.

But under current conditions, could there be prosperity with such low income?

I am frustrated; I know that for the same mangos, an Israeli grower could collect no less than 1,000\$, yet Yacuobuo can hope for a maximum of 162\$.

I could sense that I was missing something huge, but I had no clue what it was.

However, after working with Yacuobuo, I was confident that the problem is **NOT** the lack of technologies, services, low yield, or low quality.

The Problem was something else.

But what is this "*something else*"?

As a business person, I keep asking myself –

WHY is Yacuobuo poor?

Why does he remain poor, despite receiving endless support and achieving 670% income growth?

Could this situation be hopeless, despite the good intentions of many people trying to help?

Could there be no business opportunities for business people with small-hold farmers?

Does it worth my time and efforts to pursue doing business with small-hold farmers like Yacuobuo?

Many questions and doubts - and no answers!

But I was not about to give up; quite the contrary.

I remembered how the experts confidently told me that crop protection without sprays is impossible.

Now that we have crop protection free of sprays, and a high three digits income increase, I keep hearing those “experts” saying – “*Yacuobuo's situation is beyond hope.*”

In their eyes, Yacuobuo and his children’s future are doomed to poverty.

They point out how even Bill Gates failed with his multi-billion \$ investment in Africa’s agro sector.

I am not Bill Gates, but I have a strong will, drive, life experience, and professional insights that he doesn’t.

I am not giving up on Yacuobuo and not on any other small-hold farmer.

I continued to search for the answer!

Looking back, it is surprising that I didn’t notice that the answer was always with me, hidden in **my** roots.



THE SECOND STORY: THE STORY OF TSIPORA

Kibbutz is a cooperative community unique to Israel. In the past, its income was 100% dependent on agriculture, but for the last 30 years, industrial activities have become a significant additional source of kibbutz income.

This story takes place in my Kibbutz, where I was born and raised. As you will soon see, my mother's life began in poverty and extreme hardship.

Imagine this:

I am sitting on a garden chair on a large lawn. It is a winter morning. The skies are blue, and the sun caresses my face, not cold nor hot, but the perfect temperature.

On a chair next to me is my mother, Tsipora.

She is 92 years old and has cancer; we both know these are our last days together.

When she was 20, she arrived here with 76 other holocaust survivors, all orphans.



In 1948 this place was no more than a rocky hill that looked like a desert; no access roads, houses, trees, water, or electricity. A lot of nothing.

Little by little, they have built a thriving agriculture community and strong agro sector.

Only seventeen years later, I was born into a thriving community.

There are 265 Kibbutz in Israel, which makes up as little as 1.7% of Israel's population.

But listen to this; they are responsible for producing 40% of Israel's agricultural products and 10% of its industrial export (excluding high-tech and diamonds).

Again – 1.7% of the population are responsible for 40% of Israel's agro-products and 10% of its industrial export.

Not too bad.

Maybe we can learn something from them!?

My Kibbutz doesn't grow mangos, but I work with mango growers from other Kibbutz.

Their current average income from growing mangos is 50,000\$ per hectare.

The average income of an African mango grower is 500\$ per hectare, and that of Yacuobuo is \$162.

Take a moment. Let this sink in.



Knowing death will soon part us forever, I dare to ask my mother questions I would not ask otherwise.

I ask her - “*Mother, how would you summarize your life?*”

Though weak and pale from cancer, she smiles.

Without saying a word, she moves her head and looks to the left, where we see a vast green lawn stretching, then looks to the right, where there is more lawn and the big tree at the front of her house.

She looks back, where we can see the big Kibbutz dining room building.

Finally, she stares up at the blue skies.

Then she looks at me and says –

“What more could I ask for!? We had nothing. We have built a country and a successful Kibbutz. We have never imagined it would be so successful, so good.”

A couple of weeks later, my mother passed away.

Though I am familiar with the Kibbutz history, she left me wondering:

How did she and her friends build such a successful Kibbutz, which thrived even when based solely on agriculture?

I summarize the key points about my mother –

- **Born into a low-income family** of Jewish Hungarian farmers.
- **Orphan.** At 15, the Nazis killed her parents and sister.
- **Poor.** At 16 arrived in Israel with no money, partial education, no language, and no family to support her.
- **At 20** years old, established a Kibbutz with a small group of Holocaust survivors.
- **None of the pioneers was an expert in agriculture.**
- **She had access** to little money and no particular agro-tech.

Her friends were the same.

If so, how come all Kibbutzs became economically prosperous?

My mother and her friends who established the Kibbutz were ordinary women and men; none of them was a superwoman or superman.

Until the 70s of the 20th century, the available agro-technology was minimal.

Yet, my mother passed away in a prosperous community, content and pleased with her life achievements.

Her children went to top universities, and two have received Ph.D. degrees.

Like Yacuobuo's failure, I understood that my mother's success **was not** the result of money or technology availability.

Yet, I didn't understand WHY she and her friends were successful, making 50,000\$ per hectare, while most small-hold farmers hardly make 500\$ per hectare.

If only I could figure out my mother's secret, I could apply it to millions of farmers who are today in the situation she was facing 74 years ago.



THE "SECRET"

What I learned from Yacuobuo and my mother's journeys led me to ask many more WHYs, wishing to find the **ROOT CAUSE** for the difference between their life histories and economic success.

It was also an opportunity to dig into my roots.

Before I share with you the secret I discovered about Israel's agro-sector success, I have a spoiler for you -

- Technology has its part in success but is NOT the most critical element.
- No need to be a superman or a superwoman to succeed.
- Anyone can do it anywhere, anytime – even orphans, the poor, small body size, and those with limited agricultural knowledge, as my mother was.

My research led me to recognize three critical success factors, **pillars of a thriving agro-sector**.

Using Israel (which I know well) as a benchmark, here is a brief comparison of the three pillars and how the agro-sector operates in Israel versus developing economies.

1) **TECHNOLOGIES AND SERVICES** – This pillar is the only one where small-hold farmers in 2023 have an advantage over the one the Israeli farmers **had** 75 years ago.

2) **BUSINESS MODELS** –

- In Israel**, they are tailor-made to farmers' specific limitations and abilities.
- In Developing Economies**, they are general, copy-paste from other industries, and mainly, risk averted. They are not tailor-made to meet farmers' limitations.

3) **THE ECOSYSTEMS PILLAR** –

- In Israel**, the ecosystem provided by the Kibbutz community is second to none. Even farmers not part of a Kibbutz community have access to a similar advanced ecosystem whose roots are 100 years old.
- In Developing Economies**, the ecosystem is poorly structured and can't properly support farmers.



THE EUREKA MOMENT

Once you understand the *Root Cause*, it is surprising how fast you can put the conclusion to work and how powerful its impact is.

Let's look again through our new glasses at my work with Yacuobuo.

Remember, he said, "*My income I rely on you.*"

Now I understand that he meant that **without the parts of the value chain that I brought with me**, he couldn't succeed.

And he was correct.

When I met Yacuobuo, it was 2018. By then, I understood the need to provide farmers with a protocol (Technology + Service) to get the best professional results.

Indeed, the professional results were extraordinary.

However, Yacuobuo kept selling his mangos at a low price to low-price markets.

Without a better marketing alternative, he collected **one-tenth of the price** his good mangos could receive had he reached premium markets.

And even if Yacuobuo and his friends have some access to premium markets, they don't have access to the cultivation and export **protocols** required by the premium markets.

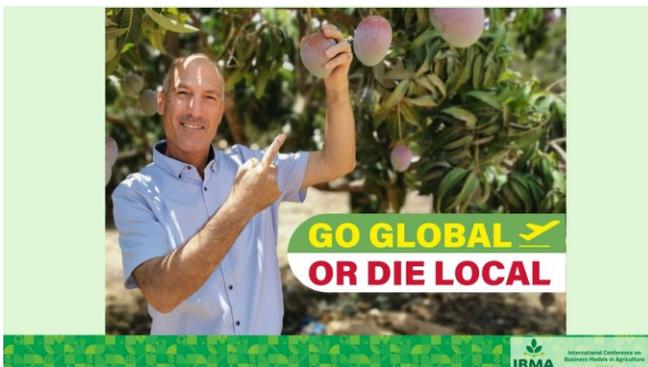
Once we know and have insight into the three pillars of a thriving agro-industry, the gap becomes crystal clear;

You see, 100% of Israeli farmers have access to global premium markets, while Yacuobuo and most small-hold farmers don't have access even to the premium markets in their own country.

This brings us to a clear conclusion, and me to my Eureka Moment –

GO GLOBAL OR DIE LOCAL!

Unfortunately, most small-hold farmers "Die Local."



Paraphrasing on J.F. Kennedy's 1962 speech, "*We choose to go to the Moon*", I say –

"We choose to Reach Premium Global Markets. We choose to Go Global..."

We choose to Reach Premium Global Markets in this decade and do the other things, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win."

Paraphrasing

"WE CHOOSE TO GO TO THE MOON..."

"We choose to Reach Premium Global Markets. We choose to Go Global... We choose to Reach Premium Global Markets in this decade and do the other things, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win."



J.F. Kennedy, 1962

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The third story is about the magic that happens when you follow the ***Go Global*** attitude.

THE THIRD STORY: SENEGAL'S MAGIC

After I understood that I must help small-hold farmers reach premium markets, I founded Dream Valley.

Dream Valley is a dedicated complete value chain model enabling small-hold farmers in developing economies to market higher quality and quantities of perishable fresh produce to global premium markets.

In 2021 I decided to pilot the ***GO GLOBAL OR DIE LOCAL*** concept.



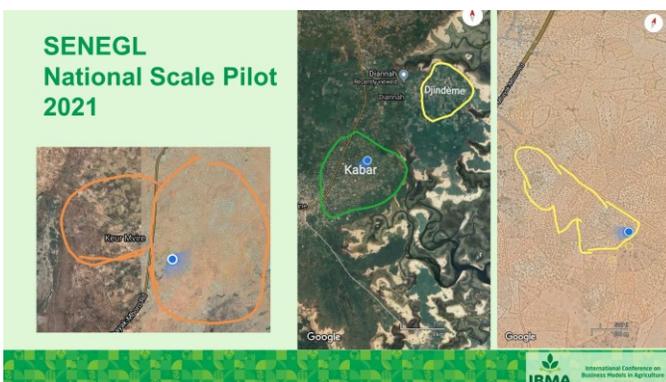
With Biofeed and Dream Valley's teams, we chose the most extreme scenario to prove the infinite advantage of the **GO GLOBAL** approach –

- **The crop:** Mango, challenging requirements, including zero fruit fly infestation.
- **The scale:** National.
- **The country:** Senegal.
- **Content:** hundreds of growers.
- **Starting point:**
 - 50% to 80% fruit infestation and yield loss.
 - Growers' income is 75% lower than ten years earlier.
 - Senegal's mango export to the EU has been in stagnation for ten years.

OUR THE STRATEGY:

To provide farmers with a complete end-to-end Package solution; from Inputs2Premium-markets.

In short, **GO GLOBAL OR DIE LOCAL**, and we had no intentions of dying.



THE RESULTS:

The results reminded me of what my mother told me a few months earlier, "*we never dreamed of such good results.*"



In 2021 Senegalese mango growers participating in the program **DOUBLED** their income from 500\$ to 1,000\$ per hectare!

And though the pilot was only 2,500 hectares out of Senegal's 35K hectares, Senegal **DOUBLED** its national mango exports from €12M to €24M.

Oh, and all this **without** the use of chemicals or fertilizers.

And... the number of EU-intercepted infested fruits dropped by 50%.

Did I say this happened **in one year** without introducing any new or additional technology?



Do you understand and see the power of a dedicated business model and ecosystem, in this case, a micro-ecosystem concept!?

Again, ALL was done in the frame of the implemented Dream Valley model, which introduces a **Package** of - technologies, a novel business model, and a micro-ecosystem designed to serve small-hold farmers.

Technology plus Business Model plus Ecosystem.

Remember this trinity!

CLOSING THE CHASM AND DISRUPTIVE INNOVATION

Intuitively we understand that we urgently need to bring changes through innovation to advance small-hold farmers in developing countries.

This is the key reason we are meeting here today.

Some may say, “*But there is already plenty of innovation! Just take a look at those agro-tech innovative companies.*”

The thing is that not all types of innovations are the same.



According to Prof. Clayton Christensen, to whom we dedicate this event, there are three types of Innovations

1. ***Sustainable Innovation*** – improving existing products and solutions.
2. ***Efficiency Innovation*** – allows us to do more with less (effort, cost, time...).
3. ***Disruptive Innovation*** – transforms expensive or highly sophisticated products or services to those that are more affordable and accessible to a broader population (e.g., mainframe computers to PCs).



Of the three types of innovation, only one, Disruptive Innovation, emphasizes the importance of Enabling technology, Novel Business Model, and a Coherent value network.

Note that those are compatible with the three pillars of a thriving agro sector – Technologies/Services, Novel Business Models, Ecosystem.

The other innovation types are more Technology-oriented.

DISRUPTIVE INNOVATION	THRIVING AGRO SECTOR
Enabling technology	Technology/Service
Novel Business Model	Novel Business Model
Coherent value network	Ecosystem

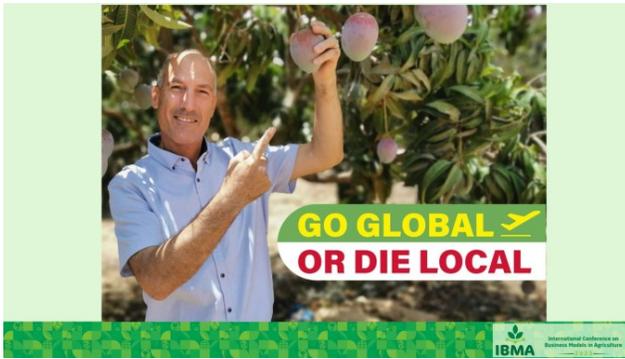
If we want to advance small-hold farmers in giant steps, we can only do it using Disruptive Innovation, as the Israeli farmers did decades ago.

The key to Disruptive Innovation is a Novel Business Model, not the technology.

Our most recent insight explains why the billions \$ invested in Technologies over decades didn't impact as expected. In fact, we see that there has been perpetuated poverty where the focus is on technology.

In contrast, we see success where the focus is on building advanced Ecosystems and Business Models. In such cases, technologies become tools for success, not the path itself.

This is how Israel's agriculture thrived long before Technology and high-tech became keywords.



"GO GLOBAL OR DIE LOCAL" is the attitude needed to reorganize the national efforts around mega-programs, preparing the nation to face the years to come as an uprising agro-economy power.

We must face the **GO GLOBAL OR DIE LOCAL** challenge because it is hard and will pull us out of poverty. Because we owe a better future for our children, our countries, and the world.

WE RESPECT AND CALL FOR ACTION

I invite you to be part of the "*GO GLOBAL OR DIE LOCAL*" challenge.

With disruptive innovation, substantial business opportunities arrive, and fortune and fame for those who would dare to be part of it.

Investors, business people, entrepreneurs, and companies, this is your chance to become the new Amazon, Google, and Facebook.

Be the game changers of our future's most critical business activity; the global food industry.

Even if you start with small baby steps, that is fine as long as you step.

Africa will become the global food barn; why wait and be #100 if you can lead and become #1?

The *International Conference On Business Models In Agriculture 2023* celebrates human ingenuity and willpower.

Humanity has reached the bottom of oceans, the top of mountains, and landed on the moon.

Today, Poverty is our **most urgent** challenge. It manifests and reflects our behavior.

We can and must change and improve ourselves.

The time is now, and the place is here.

Bless you, and may God help us to bless all people of the Earth.

