Comitato
per una Civiltà dell'Amore

"Nuclear Disarmament: Peace and Work Opportunities for Europe and for the World"
Bruxelles, May 31, 2022

Nuclear Disarmament and Developing Countries

Marco D'Agostini

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The Article IV of Treaty on the Non - Proliferation of Nuclear Weapons (NPT), provides, among others, that Parties to the Treaty in a position to do so shall also co-operate in contributing alone or together with other States or international organizations to the further development of the applications of nuclear energy for peaceful purposes, especially in the territories of non-nuclear-weapon States Party to the Treaty, **with due consideration for the needs of the developing areas of the world.**

(https://www.un.org/disarmament/wmd/nuclear/npt/text/)

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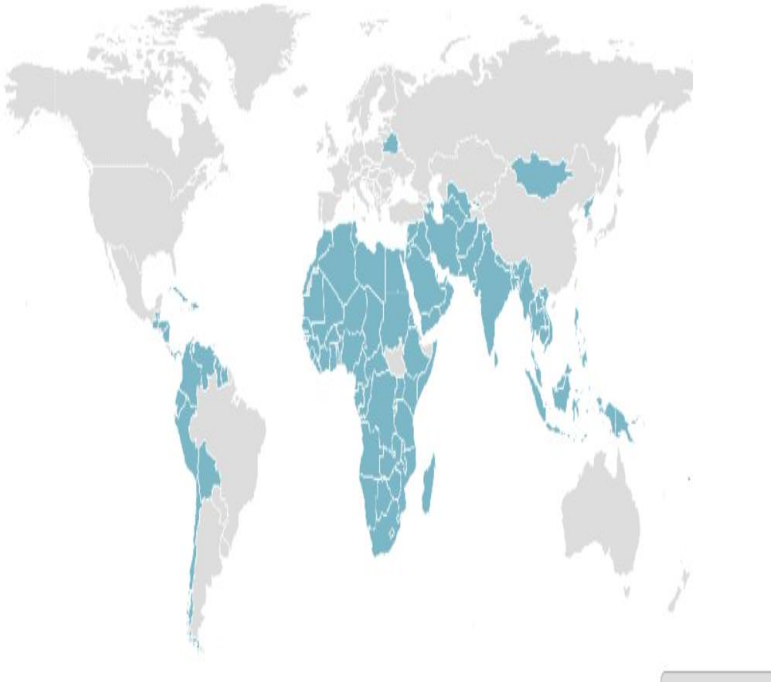
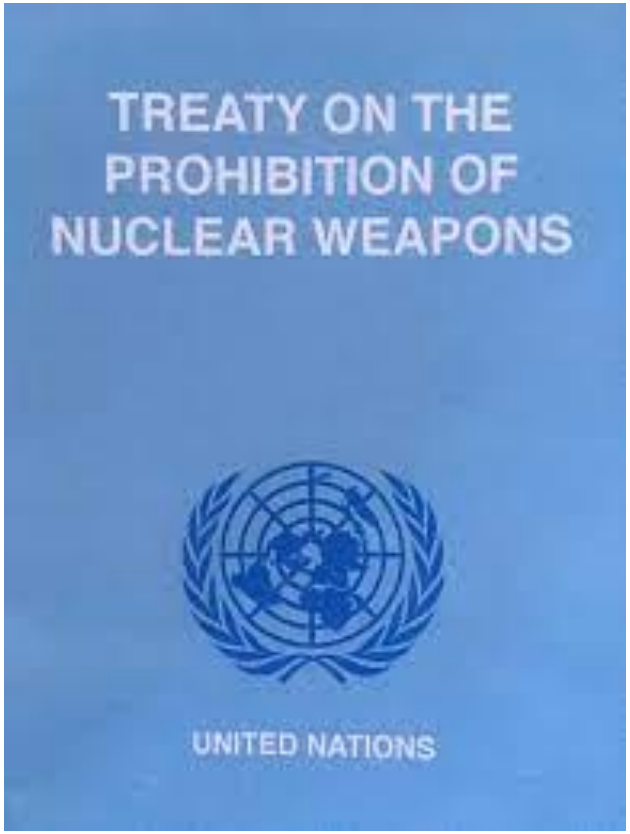
At the 2005 Review Conference of the parties to NPT treaty, the Foreign Affairs Minister of Malaysia stated **on behalf of the group of Non-Aligned States**, that the NPT was at crossroads, with its future uncertain, emphasizing, on the one hand, their concerns for the fact that the nuclear-weapon States and those States remaining outside the NPT continue to develop and modernize their nuclear arsenal, threatening international peace and security and, on the other hand, that Access to material, equipment and technology for civilian purposes should not be unduly restricted.



The validity of these concerns was confirmed by **the failure of the 2015 Treaty Review Conference,** which ended without reaching a consensus on the adoption of a Final Document

(Source:
https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/147/50/PDF/N1514750.pdf?OpenElement

Based on concerns about the slowness of the nuclear disarmament process and the continued use of nuclear weapons in military and security concepts, doctrines and policies, it was adopted in July 2017, **mainly at the initiative of developing countries**, **the Treaty on the Prohibition of Nuclear Weapons (TPNW),** which entered into force on 22 January 2021, in which, nevertheless, none of the nuclear-armed powers or most of the Industrialized countries currently participate!



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The Appeal to the EU and its Member States, launched today, 31 May 2022, by the Conference organized by the Committee for a Civilization of Love, is aimed at proposing an **International Conference for Nuclear Disarmament, to be held in Assisi,** aimed at establishing a **Permanent Working table on Nuclear Disarmament**, in the awareness of the absolute need to enhancing the connecting elements and developing the necessary synergies between the two TPNW and NPT Treaties, taking into account the prospect of the imminent resumption of negotiations within them, in order to avoid the impasse recorded in the previous negotiations reappears

The proposal launched today to establish a Permanent Table for Nuclear Disarmament is likely to garner a **strong consensus by Developing Countries**, in light of their positions, as also mentioned in the statements of the Group of Non-Aligned Countries, on matter such as :

a) their reaffirmation of the commitment to nuclear disarmament;

b) the reaffirmation of the will to actively participate in the peaceful use of nuclear energy for the development of their peoples, fully adhering to the IAEA's activities for the non-proliferation of nuclear weapons;

c) Their support, as well as for the NPT, for the new Treaty on the Prohibition of Nuclear Weapons (TPNW)

The developing countries see the financial resources of disarmament and the conversion of nuclear weapons into Energy of Peace as the decisive factor for the tragedy of poverty and hunger. With this help, not only economic, but also in terms of partnership, sustainable development will be ensured both for nuclear powers and for poor countries themselves.

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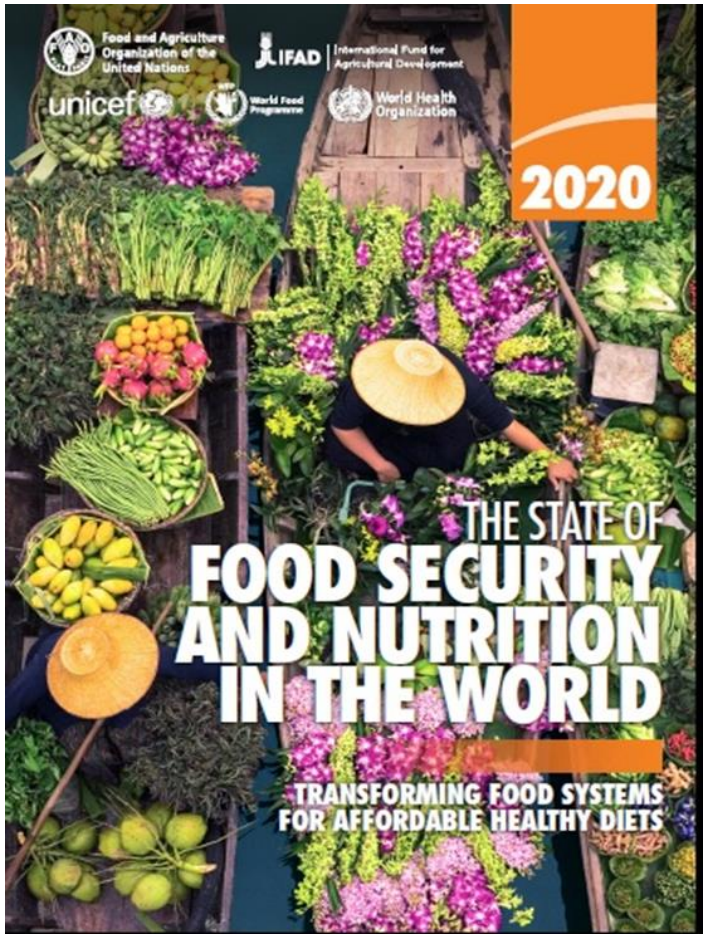
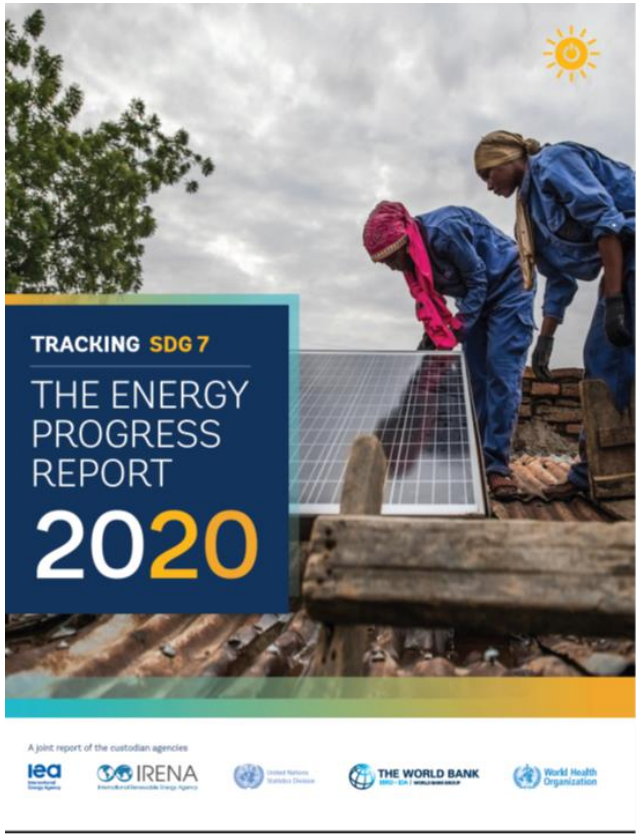
According to the Report on global food security "The State of Food Security and Nutrition in the World" of 2020[1], in 2019 almost 690 million inhabitants of the planet suffered from hunger: 10 million units more than the previous year and nearly 60 million more than five years ago.
And things got worse with the COVID pandemic ...



1) https://sdgs.un.org/sites/default/files/publications/2704FAOpublication.pdf

Moreover, it is necessary to keep in mind the correlation between hunger and lack of access to energy and, in particular, to clean energy sources.
According to the 2020 report on the implementation of SDG 7, Energy Progress, it is estimated that 620 million people still would not have access to electricity in 2030, 85 percent of them in sub-Saharan Africa[1]



(1) cfr. https://www.worldbank.org/en/news/press-release/2020/05/28/covid-19-intensifies-the-urgency-to-expand-sustainable-energy-solutions-worldwide

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The Permanent Working Table on Nuclear Disarmament, to be established according the proposal launched today, could be divided into specialized **working groups** on concrete nuclear disarmament initiatives, by geographical area and / or type of nuclear weapons, as well as working groups aimed at also take into account the social and economic aspects related to the Nuclear Disarmament issues, including **the use of the proceeds from disarmament to fight hunger and the development gap**.

The Permanent Working Table on Nuclear Disarmament could in fact also address the issue of using the proceeds of disarmament to finance the fight against hunger and the development of the poorest countries not only through the direct use of nuclear fuel but also through **the financing, thanks to those proceeds, of programs for the diffusion of renewable energy for irrigation systems, including micro-projects.**

This is not a dream. In this regard, we recall the success of the **Megatons to Megawatts Program**, completed in December 2013, the Agreement between the Russian Federation and the United States of America on the disposal of highly enriched uranium extracted from nuclear weapons, dated February 18, 1993, as a result of which the equivalent of 20,000 nuclear warheads were converted into Peace energy

The total purchase price of the enrichment portion of the material was more than $8 billion in the framework of **Megatons to Megawatts Program**, which in current value corresponds to about 14 billion dollars, without considering the further growth in energy costs

Source:
https://www.centrusenergy.com/who-we-are/history/megatons-to-megawatts/
https://www.in2013dollars.com/us/inflation/1999

Furthermore, Why not use a share of the aforementioned resources for so-called micro-projects?

Training on compost preparation with natural elements such as leaves, grass and manure, Ethiopia 2021

We know that we cannot give up on mega projects (large dams, highways, mega plants, etc.) but how much of these resources directly benefits rural populations? Are we aware that 80% of the third world population lives in rural areas, especially in Africa?

Picture: workers preparing a demonstration nursery for seeds

Caritas in Veritate, 47:

"Solutions need to be carefully designed to correspond to people's concrete lives, based on a prudential evaluation of each situation. **Alongside macro-projects, there is a place for micro-projects**, and above all there is need for the active mobilization of all the subjects of civil society, both juridical and physical persons"

https://www.vatican.va/content/benedict-xvi/en/encyclicals/documents/hf_ben-xvi_enc_20090629_caritas-in-veritate.html

We would like to deepen some operational hypotheses of intervention in the field of micro-projects with concrete examples based on our experience

The center of a rural village in southern Ethiopia: on the right the Head of the Village office, on the left the agriculture Office

Our experience derives in particular from the "Employ" project, carried out by the Committee for a Civilization of Love with CEFA, which was its leader, and other partners, which involved 100 rural villages located in 5 Districts of the Wolaita area, in the Southern Nations, Nationalities and Peoples' Region (SNNPR), Ethiopia.

Training on Good Agricultural Practices in the framework of the "Empoly" Project

The project constituted a sort of aggregate of micro-projects that involved both individuals and local communities.
Among others, the main activity of the project was the technical training on Good Agricultural Practices**, which was attended by 47,000 farmers!**

Training on Good Agricultural Practices

The project also included:

- training on strengthening of cooperatives and market access.
- Support and advocacy actions with local institutions
- Training for the use of financial and micro-credit tools
- a Summer School in Italy
- The activation of a revolving fund to support cooperatives investments

During the "Employ" project it clearly emerged that one of the main limits to the development of more modern agriculture in the area is linked to the lack of water, which is not so much attributable to climatic or morphological factors as regards the absence of investments and training for systems of collection, saving and rational distribution of the available water.

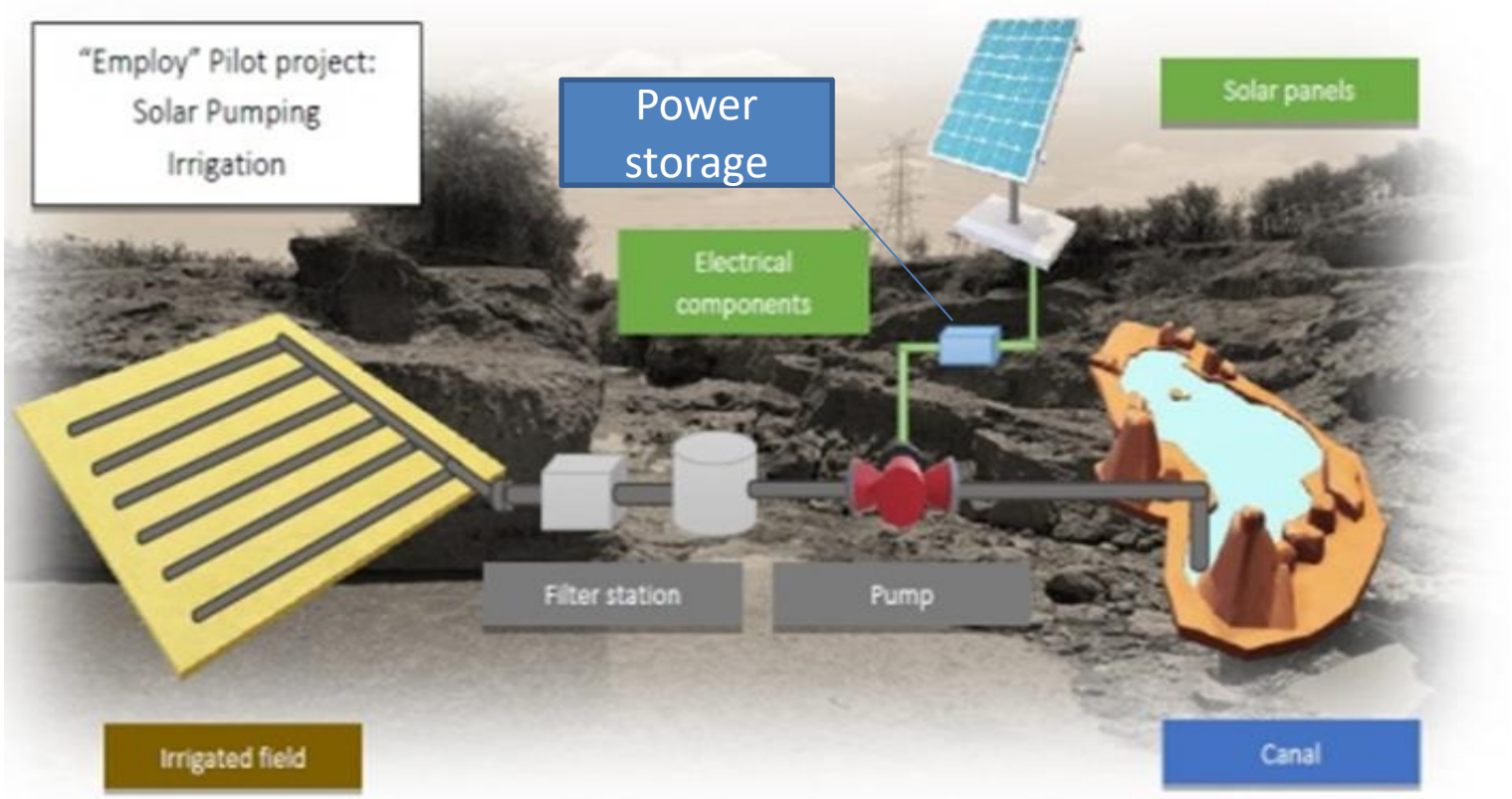
An empty artificial water catchment basin in Southern Ethiopia

THE PROPOSAL

Based on our experience on the field, we have estimated that the creation of a relatively advanced farm, suitable for occupying a community of about 15 farmers and feeding their families, for a total of about 75 members, could cost about 129,000 euros of which:

- **Drip irrigation system: 10,000 eur**
- **solar energy system: 65,000 eur**
- **Agro-zootechnical material (seeds, metal nets, wood, cement, fertilizers, tools, nurseries, etc.): 15,000 eur**
- **Transport and installation: 8,000 eur**
- **Training, staff, administration, etc.: 31,000 euros**

We could intervene according to the following scheme:



This means that**, with a cost of 8.5 million euros, about 67 farms could be built, feeding a village of 5,000 inhabitants,** which is the average size of the villages in Ethiopia. On a larger scale it means that **8,5 billion could feed 5 million people** sustainably, permanently and using renewable energy

Drip irrigation system powered by solar energy installed in Ampo Koysha, Wolayta, Southern Ethiopia

But how to carry out these projects?

1. A gift?
2. On loan?
3. Or a mix?

According to our experience, **a mix** of these intervention methods would have the maximum effectiveness:

- the financial resources would have a **leverage effect** (revolving funds could be regenerated by loan payment installments)
- the educational impact: the final beneficiary farmers would not only receive goods and agricultural training but would also improve a real **entrepreneurial ability**!

For this we propose to intervene in **3 PHASES:**

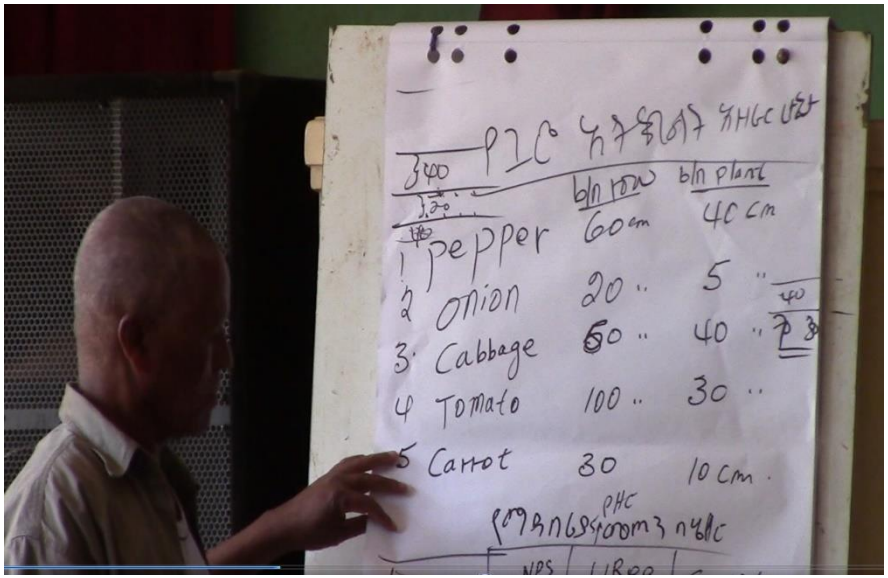
- Phase 1: for the construction of about **100 demonstration solar irrigation systems** donated in 2 years
- Phase 2 for the **construction of approximately 2,300 green farms** equipped with solar irrigation systems with an experimental micro-finance component
- Phase 3 for the **construction of up to 9,2 million farms** equipped with drip irrigation systems powered by solar energy with a proven micro-finance component

Phase 1:

- Creation of a Fund for a pilot project of approximately € **15 million euros (17 million dollars)**
- Duration of the pilot project **2 years**
- Creation of **100 demonstration irrigation systems powered by donated solar energy** in 100 different villages
- Number of **direct beneficiaries as employed: 1,700**
- Number of **indirect beneficiaries** (persons from the families of the employed): at least **8,700**

Phase 1 would serve to:

- **Test the most suitable materials** (panels, inverters, irrigation systems, etc.)
- Verify its actual productivity and quantify its **costs and benefits**
- Test the **training methodologies**
- Evaluate **the impact on local communities**, both in terms of living conditions and in terms of reaction to the introduction of new technologies but also new forms of aggregation for the organization of work



Training on Good Agricultural Practices and market access in Wolayta, Southern Ethiopia

Phase 2:

- Creation of a 2nd Phase Fund of approximately € **190 million euros (216 million dollars)** financing both revolving funds and grants to support the creation of new green farms
- **Duration of the 2nd Phase project 12 years**, starting after 2 years from the previous Phase
- **Creation of 2,300 green farms** with irrigation systems powered by solar energy **financed 30% by non-repayable grants** and 70% by soft loans to be repaid in 10 years, after a two-year grace period, at a subsidized rate
- Number of **direct beneficiaries** as employed farmers: **34,700**
- Number of **indirect beneficiaries** (persons from the families of the farmers): at least **173,000**

Phase 2 would serve to:

- verify the economic, social and environmental **sustainability of the farms** created and the ability of the communities that work there to deal with business planning and micro-finance tools
- verify the **functioning of the revolving funds** thus created before disseminating them on a global scale

Phase 3:

- Launch of a program of approximately **750 billion euros (about 860 billion dollars)** for financing both revolving funds and grants to support the creation of new green farms on a large scale
- Duration of the 3rd Phase: **12 years**, starting after 5 years from the beginning of Phase 1, and 3 years after the start of Phase 2
- Creation of **9.2 million green farms** with irrigation systems powered by solar energy **financed 30% by non-repayable grants** and 70% by soft loans, to be repaid in 10 years, after a two-year grace period, at a subsidized rate
- Number of direct beneficiaries as **employed: 138 million farmers**
- Number of indirect beneficiaries (persons from the families of the employed): about **690 million people**

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SUMMARY

	Phase 1	Phase 2	Phase 3
ENDOWMENT OF PHASE FUND			
Fund for financing the portion on loan		114	456,000
Fund for the financing of the grant quota		102	407,746
TOTAL IN MILLION US DOLLARS	**17**	**216**	**863,746**
Number of farms built	116	2,312	9,246,710
Number of direct beneficiaries as employed farmers	1,745	34,675	138,700,653
Number of indirect beneficiaries (households of the involved farmers)	8,725	173,375	693,503,269
Methods of intervention	100% gift	30% gift and 70% soft loan	30% gift and 70% soft loan
Production capacity of GWe from solar energy achieved	0.01	0.10	408.70

Such a program, financed by the nuclear disarmament process, appears as one of the most concrete proposals to achieve the goal of zero hunger.
It could also contribute to a greener world by achieving a production capacity of around 400 GWe from solar energy.

Assuming at least equivalent revenue from a new Megatons to Megawatts program launched today and the reuse of these proceeds, net of the costs of converting weapons into fuel for civilian use, **to finance the Phase 1, the Phase 2 and the beginning of Phase 3** with the construction of farms equipped with irrigation systems powered by solar energy in hungry countries, **100,000 to 140,000 farms could be created and 7 to 12 million people could be sustainably fed!**

THANK YOU FOR YOUR ATTENTION

«Bread» prepared with Enset (False banana) tree bark