

Editorial

#20 April 2023

Have the means to make December 5, 2023, World and Universal Soil Health Day

Dear Members and Partners,

After the progress made in 2022 in the various Conferences of the Parties of 3 major United Nations Conventions (particularly with regard to the consideration of soils, their health and the importance of agriculture - see <u>Soil Carbon Note #2</u>), the IPCC has published its 6th assessment report on the situation regarding climate change. The impact of human activities via greenhouse gas emissions is confirmed, with a temperature increase of 1.1°C between 2011 and 2020 compared to the period 1850-1900. The unsustainability of land use and land use change is pointed out as one of the root causes of the problem, with the corollary of the need to change agricultural practices, notably through agroecology often mentioned in the past.



In itself, this is nothing new, except that it seems that things are accelerating, and above all that we are running out of time: the longer we wait to act, the more difficult it will be to correct the climate change trend. However, it is not too late (not yet), but we must give increasing importance to our soils and their health. This is what the "4 per 1000" Initiative has been about for over 7 years, and in 2023, we are putting all our energy into promoting the importance of soil health. A draft resolution shared with the CA4SH Coalition has been circulating since well before COP27, and we hope that many countries will have signed it before COP28 to ensure that this vital issue (soil health) is addressed in all international fora dealing with sustainable development.

As I write this, I do not yet know if the "4 per 1000" Initiative will have the financial capacity to attend COP 28 in Dubai, not only to organize its traditional "4 per 1000" day, but also to organize, co-organize, host or participate in many side events of this important annual meeting. It is therefore impossible for me to mention a possible date ... And yet this year, World Soil Day (December 5) will fall during COP 28 and it will undoubtedly be a high point of the fortnight to talk about soils, their health, and their vital importance in meeting all the challenges facing humanity, starting with the fight against climate change, against the erosion of biodiversity, against desertification and of course against food insecurity. We have proposed to the FAO, the Global Soil Partnership, the CGIAR, the CIAT-Bioversity International Alliance, and our friends in the CA4SH and Agroecology coalitions to join forces to make December 5 a major soil day, to put "soil health" high on the agenda of solutions. We hope that we will all unite in this goal. For the moment we have received encouraging responses but unfortunately still no financial means.

As you will have understood2023 is synonymous with difficulties for the "4 per 1000" Initiative, since our budgetary and human resources have decreased significantly compared to previous years (-30% in terms of budget and one person less). More than ever, we need everyone's support. If you believe that we need to be in Dubai to make December 5 World and Universal Soil Health Day, join our supporters and allow us to continue playing our role.

Take care of yourselves and your loved ones, as our soils.

Dr. Paul LUU

Executive Secretary of the international "4 per 1000" Initiative

To support and donate to the "4 per 1000" Initiative, please contact the Executive Secretary by e-mail: secretariat@4p1000.org

To view the presentation file, click here. We thank you in advance for your support.



Table of contents



The "4 per 1000" study in overseas France	p. 3
"4 per 1000" Virtual Fair - Soil Innovation Day Is	p. 3
Save the Date!	p. 3-6
"4 per 1000" submission to SESJWA	p. 4
Agroecology Coalition Submission to the SESJWA	p. 5
The Coalition of Action 4 Soil Health (CA4SH)	p. 5
Restore: films from the frontiers of hope	p. 6
ORCaSa, a Horizon Europe project to restore soil health	p. 6
European Union Mission: A Soil Deal for Europe	p. 6
"Biochar - How to scale it?"	p. 7
The 3rd Symposium of the Northeast Healthy Soil Network (NEHSN)	p. 7
Screening of the documentary "Kiss the Ground: Mission Regeneration"	p. 8
"What soil health in arable crops and what levers for improvement?"	p. 8
GFFA 2023	p. 8
"4 questions to Mrs. Valérie Verdier, President and CEO of the IRD"	p. 9
Support the International 4 per 1000 Initiative!	p. 10
Our Partners and Members act!	p. 11
To be read / A must see! / To listen	p. 17
Activities related to the "4 per 1000" Initiative	p. 17
Follow the international "4 per 1000" Initiative on social networks!	p. 18
The international "4 per 1000" Initiative in a figure	p. 18
They have joined the International "4 per 1000" Initiative	p. 19

We are all concerned!

Every single one of us can take action to get things moving forward. Together we can make a difference. Our actions, individual or collective, can make things happen.

Join the Initiative!

The Executive Secretariat needs stronger means to implement its annual roadmap and organize statutory meetings in particular of the STC or regional meetings. If you wish to contribute to our common effort, please contact the Executive Secretariat: secretariat@4p1000.org

"Land Degradation and Healthy soils: towards a glossary and monitoring system" - 18th April 2023 from 09:30-13:30 CEST

This online workshop is organised by EJP Soil.

To learn more, click here.

Technical conference "Soils (first living organisms)" - Thursday April 20, 2023 from 2 p.m. to 6 p.m. - Palais des Congrès de Gruissan, Aude, France

Organized by the <u>Dubernet Laboratories</u> <u>Group</u> and Terra Mea, in partnership with the Interprofessional Council of Languedoc Wines (CIVL).

Soil living organisms are the foundation of terrestrial ecosystems, whether wild or cultivated. Its knowledge is a crucial agronomic, environmental and economic issue for the agriculture of tomorrow. The conference will bring together scientific and field experts from the agricultural, viticultural and oenological sectors to understand the importance of soil life in the context of positive agroecology. With in particular Matthieu Dubernet, Dubernet Laboratories Group, Paul Luu, international "4 per 1000" Initiative and Francis Bucaille, Gaïago. To learn more and register, click here.

Regional meeting in West Africa of the international "4 per 1000" Initiative - May 15-17, 2023 - Abidjan - Côte d'Ivoire

This "4 per 1000" International Seminar on Forest Soil Conservation and Restoration in West Africa is organised within the framework of the Terri4Sol Project, by the international "4 per 1000" Initiative and CIRAD, coordinator of the Terri4Sol Project, in partnership with the Ivorian Ministry of Agriculture and Rural Development. More information to come here.



The "4 per 1000" study in overseas France: storing carbon in agricultural and forest soils in overseas France

Coordinated by CIRAD in partnership with INRAE and IRD, the "4 per 1000" study in overseas France provides an unprecedented assessment of soil carbon stocks in overseas territories. The authors make operational and research recommendations to preserve these high stocks and meet the major challenges of agriculture in the face of climate change at the national and territorial levels.

For more information, click here (in French).

To watch the presentation of the "4 per 1000" study in the French overseas territories on March 1, 2023 at the International Agricultural Show, click here (in French).

To download the summary for decision makers, click here (in French).

To visit the "4 for 1000" overseas project website, click here (in French).







"4 per 1000" Virtual Fair Soil Innovation Day

This year's "4 per 1000" Virtual Fair will be opened with the new established <u>Soil Innovation Day</u> on June 9. The international "4 per 1000" Initiative invites all of its members to join the Virtual Fair 2023 and to present their ideas, projects and achievements in three open sessions (English, French and Spanish).

The Soil Innovation Day has been accepted as an official <u>Partner Event</u> of the EU Green Week 2023.

The Executive Secretariat is still looking for a secondment related to a Communication officer and webmaster.

If your institution or organization wishes to provide such a secondment, please contact Dr. Paul LUU: paul.luu@4p1000.org

7th International Conference on Vetiver (in person and online) - 29 May - 1 June 2023 - Chiang Mai, Thailand

The main theme of the Conference organized by the Chaipattana Foundation and the Office of the Royal Development Projects Board (ORDPB), is Vetiver for Soil and Water Conservation.

This conference is completely free (no registration fee, nor are there fees for the post conference tour, conference meals and refreshments).

For more information, click <u>here</u>. To register before May 15, click <u>here</u>.

Join the conference connecting real-world farming, policy, research, and business for healthy soils in Northern Europe!

Connecting real-world farming, policy, research, and business with each other is vital if we are to transition towards healthy soils and productive, highly resilient agriculture.

Baltic Sea Action Group and the "4 per 1000" Initiative invite you to join the first-ever Northern European regional meeting of the "4 per 1000" Initiative in Helsinki from June 6 to 8, 2023. The three-day event brings together colleagues from all over Northern Europe and offers, among other things, 12 keynote speeches, 2 field trips, tens of posters, panel discussions, and countless opportunities to connect and gain new insights. Find out more and sign up.

The 1st North European "4 per 1000" Regional Meeting has been officially confirmed as a Partner Event of the European Union Green Week 2023

The next meeting of the Scientific and Technical Committee of the international "4 per 1000" Initiative will take place in Helsinski, Finland, on June 6, 8 and 9, 2023, on the sidelines of the Northern Europe regional meeting of the "4 per 1000" Initiative.



Submission regarding the Sharm El-Sheikh Joint Work on Implementation of Climate Action on Agriculture and Food Security (SESJWA)

During UNFCCC COP27 in Sharm El-Sheikh in November last year, parties requested the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) to establish a four-year work programme focusing on the implementation of the outcomes of the Koronivia Joint Work on Agriculture as well as future topics related to agriculture and climate change adaptation and mitigation. In that context, parties and observers were asked to provide views on future topics and actions to be considered under the Joint Work.

We are happy to announce, that the "4 per 1000" Initiative in collaboration with CIRAD, IRD and the CA4SH Initiative made a submission to call for the consideration of soil health related matters under the new work programme. The submission was cosigned by over 20 Partners and Members of the Research and educational bodies College of the Initiative.

Recommendations include to:

- Leverage the integrative potential of Soil Organic Carbon (SOC) and related commitments across multiple conventions (UNFCCC, UNCBD, UNCCD) to reduce countries burdens, open land and soil related projects to climate finance and ultimately, contribute to the collective and mutually beneficial use of national agricultural resources
- 2. Reference agroecology and agro-ecological principles in SESJWA
- 3. Guide parties in the development of certification systems for carbon farming, as well as in designing land management practice payments. Support the dialogue between practitioners, scientists and other stakeholders to better understand challenges and opportunities of carbon farming
- 4. Support investment in research on MRV (Monitoring Reporting Verification) tools for contrasting situations and systems and the establishment of a globally harmonised MRV scheme
- 5. Foster knowledge transfer on SOC-positive practices between different stakeholder groups
- 6. Increase support of action on the ground through enhanced inclusion of soil health related projects in climate finance.

Parties to the UNFCCC will decide on further actions to be taken and topics to be considered during the 58th session of the subsidiary bodies in June 2023. We will follow up the process closely.

The submission will be published in the submission portal here.

EU Green Week will take place between Saturday 3 June and Sunday 11 June 2023.

The 1st North European "4 per 1000" Regional Meeting (June 6-8, 2023) has been officially confirmed as a Partner Event of the European Union Green Week 2023.

The <u>Soil Innovation Day</u> (June 9, 2023) of the "4 per 1000" Virtual Fair has been accepted as an official <u>Partner Event</u> of the EU Green Week 2023 (6-7 June 2023).

Soil Innovation Day - June 9, 2023 online

This year's "4 per 1000" Virtual Fair will be opened with the new established Soil Innovation Day on June 9. The international "4 per 1000" Initiative invites all of its members to join the Virtual Fair 2023 and to present their ideas, projects and achievements in three open sessions (English, French and Spanish). The Soil Innovation Day has been accepted as an official Partner Event of the EU Green Week 2023.

44th World Congress of Vine and Wine -June 5-9, 2023 - Cádiz / Jerez, Spain

This congress is organized by the International Organization of Vine and Wine. Information and registration here.

African Union Fertilizer and Soil Health Summit - June 2023

An African Union Commission-led initiative, the African Union Fertilizer and Soil Health (AFSH) Summit seeks to build a more dynamic African fertilizer market that addresses the primary soil health constraints on the continent. The summit, to be held in June 2023, will bring together high-level stakeholders to reach an agreement on a 10-year action plan for sustainable productivity growth in African agriculture. To learn more, click here.

4th Global Soil Security Conference - June 26-29, 2023 - Seoul, South Korea

This conference will be held in Seoul on June 26-29, 2023 and will cover a variety of topics ranging from integrating the roles of soil functions for soil health, climate change impact and human health.

For more information, click <u>here</u>.



Agroecology Coalition's submission to the Sharm-al-Sheikh Joint Work on implementation of climate action on agriculture and food security

The international "4 per 1000" Initiative participated in the Agroecology Coalition's submission to the Sharm-al-Sheikh Joint Work on implementation of climate action on agriculture and food security (SESJWA).

Thanks to <u>Biovision Foundation</u>, a UNFCCC-accredited organization, member of the <u>Agroecology Coalition</u> and and Partner of the "4 per 1000" Initiative, who agreed to submit this on behalf of the Coalition and to the Policy WG co-facilitated by Martina Fleckenstein (<u>WWF</u>) and Ronnie Brathwaite (<u>FAO</u>) for tackling this point in the WG meeting in early March.

The Coalition has also made contribution to a wider submission put together by the <u>CGIAR</u>. You can access it <u>here</u>.



The Coalition of Action 4 Soil Health (CA4SH) is a collective of diverse stakeholders committed to scaling healthy soil practices globally.

To leverage the expertise of CA4SH member organizations, CA4SH has launched six working groups around core themes, namely, policy engagement, financing, monitoring, research and development, project implementation, and engagement and outreach.

CA4SH aims to continue engagement in international fora in 2023 including World Water Week, SBSTA in Bonn, UN Food Systems Summit stocktaking event, AIM4Climate, the Africa Fertilizer and Soil Health Summit (AFSH), and UNFCCC COP28.

A key objective for 2023 is to bring forward the <u>Soil Health Resolution</u> into climate negotiations and beyond! CA4SH is consistent with the approach taken by the "4 per 1000" Initiative and works in coordination and collaboration with it.

<u>Visit the CA4SH website to learn more, Sign up for the CA4SH newsletter here, Browse the archive, and follow CA4SH on Twitter and LinkedIn.</u>

31st International Leadership Workshop for Rural Youth - From August 9 to 23, 2023 - House of Bavarian Agriculture, Herrsching, Germany

This event is organised again this year by the German Federal Ministry of Food and Agriculture (BMEL). The workshop is aimed at managers and multipliers from all over the world who hold positions of responsibility in the field of youth work or vocational training in rural areas. The motto of this year's workshop is: "Think globally - Get together and act locally". Information and registration here.

International "4 per 1000" Initiative Regional Meeting in Asia on Soil carbon sequestration: potential, opportunities, and strategies for healthy soils and climate change mitigation in Asia - 7 to 10 February 2023 - Kanha Shanti Vanam - Hyderabad (India)

This meeting is co-organized by the "4 per 1000" Initiative, International Crops Research Institute for the Semi-arid Tropics (ICRISAT), Indian Council of Agricultural Research (ICAR), Alliance Bioversity International – CIAT, Trust for Advancement of Agricultural Sciences (TAAS) and Heartfulness Institute.

Objectives of the Regional Meeting:

- To deliberate on the potential, challenges, opportunities, and strategies in soil C sequestration and soil health in Asia,
- * To propose an implementation pathway from policy to action through a regional 4 per 1000 roadmap, which would include:
 - An action plan for establishing a regional consortium to foster collaborative research around carbon sequestration in soils and maintaining healthy soils, and
 - A regional database on good agricultural practices for carbon sequestration and climate change mitigation to support transition and payment for ecosystem services.

More information to come here.

The United Nations Framework Convention on Climate Change (UNFCCC) - COP 28, will be held in Dubaï (United Arab Emirates) from 30 November to 12 December 2023.

More information here.

The 7th Day of the international "4 per 1000" Initiative will be held on the sidelines of COP 28, around December 6, 2023.

More information to come here.





Restore: films from the frontiers of hope

We are experiencing a dangerous decline in nature. But there are glimmers of hope: watch this documentary series to explore ten places where nature is making a comeback.

These are the first ten UN World Restoration Flagships – examples of how humanity can achieve the goals of the new Global Biodiversity Framework. Get inspired and join #GenerationRestoration. New episodes arrive every Monday.

The international "4 per 1000" Initiative is an official supporting partner of the United Nations Decade on Ecosystem Restoration 2021-2030.

ORCaSa, a Horizon Europe project to restore soil health

Launched in September 2022, ORCaSa (formerly CIRCASA) is a Horizon Europe initiative that aims to bring together international stakeholders working on techniques for capturing and storing carbon in the soil.

The ORCasa project seeks to address the issue of increasing carbon emissions from human activities, which have led to a disruption in the balance of organic carbon absorbed and stored in the soil to support plant growth.

Over the next three years, ORCaSa will expand the scope to include not only agricultural soil carbon but also soil carbon stored in forests, pastures, wetlands, and urban areas. The International Research Consortium (IRC) that will emerge from the ORCaSa project will advance carbon solutions through research funding, harmonisation of research activities and knowledge sharing.

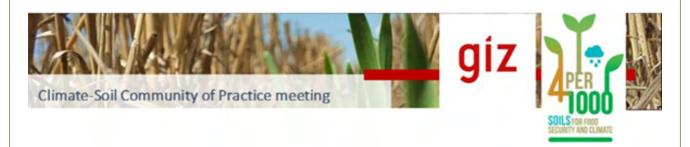
Coordinated by the French National Research Institute for Agriculture, Food and the Environment (INRAE), the project will be powered by KP4SoilCarbon, a state-of-the-art platform that will collect knowledge on soil carbon and make it available to the public.

The international "4 per 1000" Initiative is a partner of ORCasa and participates in its orientations.

European Union Mission: A Soil Deal for Europe

What this EU mission is, how EU Missions will be implemented, mission boards, meetings, news, events.

To learn more, please click <u>here</u>, at the bottom of this page, you will find a presentation of the Mission 'A Soil Deal for Europe': 100 living labs and lighthouses to lead the transition towards healthy soils.



"Biochar - How to scale it?", a Climate-Soil Community of Practice Event

On March, 28, 2023, this year's first webinar under the Climate-Soil Community of Practice, which was jointly organized by GIZ Sector Project Soil Protection, Combating Desertification, Sustainable Land Management and the international "4 per 1000" Initiative on soils for food security and climate, shed light on approaches to scale up the use and production of Biochar in agriculture and beyond.

During the event, four excellent speakers shared their experiences. The floor was opened by Prof. Luo Jan from the Chinese academy of Sciences, who gave insights into industrial production and commercialisation of Biochar from agricultural and forestry residues in China. Subsequently, Dr. Aquel Hasan Rizvi from CIFOR/ICRAF and Dr. Dries Roobroeck from IITA reported on their experiences with biochar production and application at the village level and in small holder settings in India and Kenya respectively. Finally, Johannes Meyer zu Drewer from the Ithaka Institute for Carbon Strategies gave a short introduction to the Artisan C-sink standard, a methodology for the certification of biochar based C-sinks, where biochar is produced with artisanal, non industrial, methods of flame cap (Kon Tiki) pyrolysis.

All presentation as well as information on the speakers can be found under the Community of Practice space on the collaborative platform of the international "4 per 1000" Initiative (Afris wiki).



"Transitioning to More Regenerative Practices in the Northeast: Towards Inclusive and Fair Compensation for Farmers and Other Soil Health Stewards"

The 3rd Symposium of the Northeast Healthy Soil Network (NEHSN) was held on March 16 on line and March 17, 2023 in-Person on the Campus of the University of New Hampshire, Durham (USA) and Virtual.

The Northeast Healthy Soil Network (NEHSN) originated as a 2018 initiative in Tufts University's Global Development and Environment Institute, which conducts interdisciplinary research that emphasizes ecological, cultural, social, and institutional factors.

This event was organized by Food Solutions New England, UNH, The Northeast Organic Farming Association of New Hampshire (NOFA-NH), the Global Development and Environment Institute at Tufts University (GDAE), and Dartmouth College with the support of NEHSN's international partners: the international "4 per 1000" Initiative, the French Ministry of Agriculture and Food Sovereignty, the French Embassy in Washington D.C. and the French Consulate General in Boston.

The key objectives of the 2023 Symposium were to: rejuvenate and reignite the network in the post-pandemic period, realign regional policy goals in light of the 2023 Farm Bill, the Inflation Reduction Plan funding, and the Climate Smart Commodities Grants, and launch a plan to solidify the network with biannual meetings in conjunction with the growing partnerships with universities, NGOs, and government stakeholders.

More info (report, videos...) here (from mid-April).



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Screening of the documentary "Kiss the Ground: Mission Regeneration" (French version) by Joshua Tickell and Rebecca Harrell Tickell

The international "4 per 1000" Initiative, <u>Agropolis International</u> and the <u>French Scientific Committee on Desertification</u> organized on March 14 in Montpellier (France), a screening of the documentary "Kiss the Ground: Mission Regeneration" (French version) by Joshua Tickell and Rebecca Harrell Tickell.

This screening was followed by an Round Table with Paul Luu, Executive Secretary of the "4 per 1000" Initiative and Jean-Luc Chotte, President of the French Scientific Committee on Desertification and researcher at IRD and Eco&Sols.

To see the trailer of "Kiss the Ground: Mission Regeneration", click here.

To see the original version of the documentary "Kiss the Ground: Regenerative Agriculture" by Joshua Tickell and Rebecca Harrell Tickell, click <u>here</u>.



On March 8, the <u>international "4 per 1000" Initiative</u> and the <u>Earthworm Foundation</u> organized a webinar on the theme "What soil health in arable crops and what levers for improvement?"

with in particular on the program:

- · The link between result indicators on soil health, carbon storage potential and the practices implemente
- Identification of priority action levers to accelerate soil regeneration
- An exchange with farmers implementing different cropping systems as part of their transition, the obstacles encountered and the solutions implemented
- Feedback on a network of 150 arable farms by the "Living Soils" program of the Earthworm Foundation.

To view the seminar, click here.



The 'Global Forum for Food and Agriculture, Food systems transformation: a worldwide response to multiple crises' (GFFA 2023) was held in Berlin, Germany from January 18 to 21, 2023.

The GFFA was organized by the Federal Ministry of Food and Agriculture of Germany (BEL) and the city of Berlin, the 'Global Forum for Food and Agriculture' (GFFA 2023) was held in Berlin, Germany from January 18 to 21, 2023.

During the GFFA the 15th Berlin Agriculture Ministers' Conference assembled on January 21. The agriculture ministers of 64 nations discussed the role of food systems and their transformation as a response to the current global crises. Key points of the discussion were the creation and fostering of resilient, sustainable and climate-friendly food systems, the promotion of biodiversity and the improvement of global collaboration in the area of food-systems. At the end of the conference, ministers adopted a final communiqué that included a call to action.

To read the background paper click here, to consult the statement of young farmers here.



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« 4 questions to ... »

Mrs. Valérie Verdier

President and CEO of the Institute of Research for Development (IRD)

"... I hope that this initiative will be supported by other partners and that it will attract as many people as possible ..."

1/ Mrs. Valérie Verdier, could you introduce yourself in a few words?

A researcher in biology, I have been, since 2020, President and CEO of the Institute of Research for Development (IRD), a multidisciplinary French public research organization which has been committed, for nearly 80 years, to fair partnerships with countries of the South and in the French Overseas Territories. Previously, I directed one of the five scientific departments of the IRD: the Ecology, Biodiversity and Functioning of Continental Ecosystems Department (ECOBIO) and piloted.

2/ As CEO of the IRD, what are the main actions you are carrying out in connection with the 'international "4 per 1000" Initiative: Soils for Food Security and Climate'?

IRD's actions are part of the international scientific dynamic and the implementation of the Sustainable Development Goals (SDGs). They target in priority the research and development issues of countries in the intertropical zone. Within the framework of the "4 per 1000" Initiative, our role is to conduct studies with our partners in the South, in order to support the implementation of concrete actions to make agricultural and forest soils one of the major levers for adaptation and mitigation of climate change and the achievement of sustainable development goals. These knowledge productions should enable the development of new interdisciplinary scientific fronts taking into account all aspects related to soils: soil carbon stocks, socio-economic constraints of farmers, the role of women and youth in the development of agriculture, innovations in agroecological practices and approaches, access to water, accessibility to digital innovation, etc. We participate, in the framework of international collaborations, in the strengthening of socio-ecosystems observation systems and in the sharing of data acquired by these observatories.

Recently, IRD researchers contributed to the "4 per 1000" study in overseas France coordinated by CIRAD in partnership with INRAE. Published in March 2023, it provides an unprecedented assessment of soil carbon stocks in overseas territories. This work has led to the formulation of operational and research recommendations for preserving these high stocks and meeting the major agricultural challenges of climate change at national and territorial level.

3/ What does the "4 per 1000" Initiative represent for you?

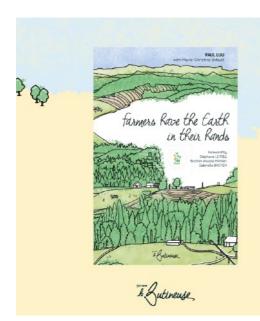
The international "4 per 1000" Initiative offers an unprecedented framework for collaboration within the scientific community as well as between scientists and decision-makers, whether public, from civil society or private sector actors. It allows both work at the local level, aimed at meeting the needs of territorial actors, and global actions, on sustainable development issues. In this context, the IRD can fully play its role and be an important player in scientific diplomacy.

4/ What message do you want to convey to the "4 per 1000" Partners and Members?

I hope that this initiative will be supported by other partners and that it will attract as many people as possible, in particular major international donors, so that our research activities can produce new knowledge that will generate solutions and benefit the most vulnerable populations.



Support the International 4 per 1000 Initiative!



Support the "4 per 1000" Initiative by ordering the book 'Farmers have the Earth in their hands', directly on the Editions La Butineuse website by clicking here.

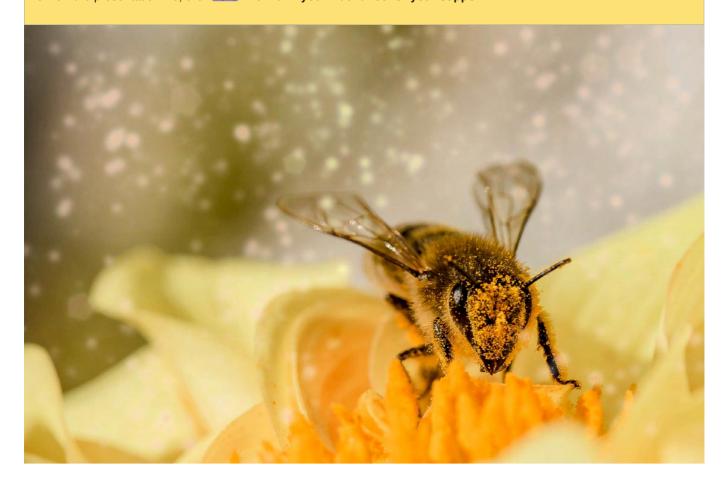
The ambition of this concise book, written for the general public, is to provide a simple and non-judgmental overview of today's agriculture and the solutions that will ensure the future of humanity on planet Earth. Starting from its scientific foundations and the history of its "r-evolutions", this book attempts to shed light on the issues at stake without sidestepping the disturbing questions. Agriculture is part of the solution to climate change, but too many people still ignore it.

This book is also available in French and Spanish versions.

All royalties from this book will be donated to the international "4 per 1000" Initiative.

To support and donate to the "4 per 1000" Initiative, please contact the Executive Secretary by e-mail: secretariat@4p1000.org

To view the presentation file, click here. We thank you in advance for your support.





Australia launches second round of soil carbon innovation funding

This grant opportunity gives research and commercialisation organisations up to \$20 million over two years to develop lower-cost, accurate technological solutions for measuring soil organic carbon stocks. To learn more, and apply, click here. Closing date: Tuesday 11 April 2023 5:00pm AEST

A video that explain the benefits of regenerative agriculture in terms of ecosytem services and carbon footprint.

This video was produced in the framework of the LIFE AGRESTIC project which is part of the broader objective of climate change mitigation of the LIFE Program for the Environment and Climate Change 2014-2020. LIFE AGRESTIC aims to promote the adoption of innovative and efficient cropping systems, based on the introduction of legumes and catch crops in four-year rotations of cereals and industrial crops, as well as innovative tools to mitigate the impact of agricultural activity on climate change and optimize agronomic management. The project, which will last four and a half years, involves six partners: ART-ER S.Cons.p.a., which is a Member of the international "4 per 1000" Initiative, Horta Srl, Isea srl, New Business Media srl, School of University Studies and Specialization Sant'Anna and the Catholic University of the Sacred Heart of Piacenza.

Roots of Tomorrow, the free video game to understand agroecology

Do you want to better understand agroecology? With the simulation game Roots of Tomorrow, you are at the head of a farm that wants to be part of a more sustainable agriculture.

An immersive experience within the agricultural world, Roots of Tomorrow allows you to better understand the issues and challenges facing farmers. This free strategy and management game raises the user's awareness of the agroecological transition.

The scenarios of Roots of Tomorrow are designed in consultation with agricultural professionals and researchers to provide the game with realistic data. This free 3D game is developed by <u>Gamabilis</u>, under the patronage of the <u>French Ministry of Agriculture</u>, the <u>French Ministry of Ecological Transition</u>, <u>INRAE</u> (National Research Institute for Agriculture, Food and the Environment) and <u>Agreenium</u>.

For more information, click <u>here</u> (in French). To download the game for free, click <u>here</u>.



Global assessment of soil carbon in grasslands, From current stock estimates to sequestration potential

"... The 4p1000 initiative has identified an aspirational sequestration target of 3.5 Pg C/year to provide substantive global mitigation. Our estimates suggest that 17 percent of this target could be reached in the top 30 cm of grasslands and continue over at least 20 years after adoption of SOC enhancing management, such as the incorporation of animal manures, agroforestry and rotational grazing. This requires that grasslands increase SOC storage between 0.18-0.41 tonnes C/ha every year. Our estimates do not account for differences in climate and important soil process issues, notably nutrient and water limitations, biomass production and turnover rates. However, sequestering carbon via increases in the soil component on grasslands is an achievable and potentially effective route to quickly increasing carbon sequestration in the near term. Emphasis on future work should be placed on spatially explicit studies to explore the impacts of livestock management practices at country level and to monitor management-induced carbon sequestration in livestock-based ecosystems at farm level ..."

This text is taken from the FAO study "Global assessment of soil carbon in grasslands, from current stock estimates to sequestration potential" (page x).

Soils contribute to the achievement of the UN Sustainable Development Goals through carbon sequestration. By enhancing soil health and fertility, soils can play a crucial role in climate action, land degradation neutrality, and alleviating hunger. The present study provides a spatially explicit report on the state of grassland soils and can be used as a baseline for future work to explore the impacts of livestock management on soil carbon at regional, country and farm levels. Assessing the current state of grassland systems and their potential to sequester carbon in the soil is of key importance to understand the trade-offs between grassland services on food security, biodiversity conservation and climate mitigation.

To download this FAO document, click here.



FAO has updated the Harmonized World Soil Database!

This is a unique global soil inventory providing information on the morphological, chemical and physical properties of soils at approximately 1 km resolution. To read it, click here.

FAO has launched the Global Soil Doctors Programme, a farmer-to-farmer training platform

<u>This webpage</u> is designed as a source of soil information and knowledge on the different components and aspects of the Global Soil Doctors Programme - a farmer-to-farmer training platform, and the importance of soil as a vital resource for farmers, policy makers, development planners, agricultural extension workers, NGOs, private sectors and any other practitioners/interested stakeholder.

The FAO eLearning Academy offers over 350 multilingual self-paced e-learning courses on food, nutrition, agriculture and so much more. They are all free and downloadable! Check them out here.

Recycling bio-waste into compost and digestate recycles fertilisers

Recycling bio-waste into compost & digestate is very important and plays a crucial role in today's circular economy, because it:

- · recycles fertilisers
- · contributes towards food security
- is essential for effective carbon farming.

To watch the video of 'European Compost Network ECN e. V.' on why recycling bio-waste has never been more important, click here.

The international organization Conscious Planet launched a a global movement to bring policy change in all 195 countries in the world to regenerate soil health with a minimum target of 3 to 6% organic content in the soil.

To learn more, click here.

In March 2023, Conscious Planet joined the international "4 per 1000" Initiative as a Member.

Land Degradation Surveillance Framework - ICRAF

The Land Degradation Surveillance Framework (LDSF) is a comprehensive method developed by <u>ICRAF</u> scientists, that provides a science-based field protocol for measuring land and soil characteristics, as well as vegetation composition and land degradation status over time.

This field manual describes the LDSF field survey methods and is designed to be used in training and as a reference in field during survey campaigns.

To download a free copy, please click here.

Agroforestry and fruit trees to accelerate delivery of good nutrition in the Para State Engagement Landscape (Brazil)

CIFOR-ICRAF's Brazil-based Agroforestry and Reforestation Accelerator (ARA) project in Brazil's *Pará* State, which is funded by Amazon and implemented with The Nature Conservancy (TNC), is building a public-private partnership for restoration through agroforestry-based carbon sequestration. This initiative supports the implementation of a range of agroforestry systems and practices, which are tailored for local contexts and farmers' goals. The project works with multiple stakeholders – including state government, rural development and environmental agencies, key research institutes, NGOs, and farmers' organisations – to gain 9.6 million tonnes of CO2 sequestration by implementing 18,000 hectares of agroforestry and ecological restoration in collaboration with around 3,000 farming families.

To learn more, please click here.

CIFOR-ICRAF and The Nature Conservancy are Members of the international "4 per 1000" Initiative.







National Institute of Agricultural Sciences (NAS) is a government institution in agricultural R&D under <u>Rural Development</u> <u>Administration</u> which was established in 1962.

NAS consists of six departments and one center, with over 500 staffs, and conducts agricultural research and development in parallel with deploying customized extension services to disseminate technologies.

More information <u>here</u>.

In March 2023, National Institute of Agricultural Sciences (NAS) of Republic of Korea joined the international "4 per 1000" Initiative as a Partner.

With « QUBS », discover the biodiversity hidden under your feet! - INRAE

The French National Museum of Natural History, in collaboration with the University Paul-Valéry Montpellier 3, Sorbonne University, the University of Lorraine, INRAE and Plante & Cité, has launched a new participatory science program: "QUBS", the participatory monitoring of soil biological quality.

Discover the fascinating diversity of organisms that inhabit soils and contribute to their functioning with QUBS: the participatory monitoring program of the QUalité Biologique des Sols. Accessible to everyone, different protocols make it easy to observe various groups of species (earthworms, ants, woodlice...).

By participating, you will help scientists understand the effects of the environment on the biological quality of soils. You will also learn more about the life hidden under your feet and how to encourage it!

To learn more about "QUBS": the new soil biological quality monitoring program, click <u>here</u> (in French).

To participate, click here (in French).

160 market gardeners in Ivory Coast have embarked upon an agroecological transition

In response to decreasing yields, poorer soils and over-high fertilizers costs, growing numbers of farmers are switching to agroecology. In Ivory Coast, the MARIGO project, coordinated by <u>CIRAD</u> and funded by the European Union, is supporting this trend, through training, co-construction of new cropping systems, and advocacy. To learn more, please click <u>here</u>.

Terri4Sol: towards sustainable soil organic carbon management practices in Côte d'Ivoire

Cocoa trees, coffee trees, rubber trees and oil palms trees have boosted the economic development of Côte d'Ivoire. But today, agricultural production is threatened by the impoverishment of the land and the scarcity of the forest, which leads to microclimatic changes that are detrimental to crops. To curb this dual phenomenon, the Terri4Sol project, coordinated by CIRAD and mainly funded by the French Global Environment Facility (FFEM), promotes sustainable management practices for post-forest landscapes in Côte d'Ivoire. The objective: to restore the soils and the multifunctionality of these landscapes. To see the video, click here.

A Guide to Evaluating Agroecology

The Guide to Evaluating Agroecology proposes an approach and methodological tools for assessing the effects of agroecological practices and systems on the agroenvironmental and socioeconomic performance of agriculture, as well as the conditions for developing agroecology. It aims to help development actors to better design their projects, programs and public policies in favor of agroecology, to facilitate the creation of references (performance and development conditions) and to support farmers so that they can better evaluate the results of their practices and thus have a decision-making aid.

This book is the result of collaboration between the teams of GTAE (<u>Agrisud International</u>, <u>AVSF</u>, <u>Cari</u> and <u>GRET</u>), AgroParisTech, <u>CIRAD</u>, <u>IRD</u> and Institut Agro Montpellier, and supported by <u>AFD</u> - Agence Française de Développement, Inter-American Development Bank, <u>Ecowas - Cedeao</u>, Département des Hauts-de-Seine, Vivre Ensemble.

To obtain the printed version of the guide or to consult the e-book, click here.



The comic strip 'Mystery in the heart of the soil'

Agriculture can be a source of solutions, not just problems, especially with Soil Conservation Agriculture (SCA).

It is a new vision of sustainable and regenerative agriculture that places the soil at the heart of the production system around 3 complementary pillars:

- no-till
- the planting of plant cover crops
- a diversified rotation with as many plant associations as possible in time and space.

To read the comic strip 'Mystery in the heart of the soil' please click here.

The illustrations are by Lucie Gallart, and the scenario and texts by Sophie Gardette. The proofreading was done by the members of APAD (Association for the Promotion of Sustainable Agriculture). Florence, Diane, Benoit, Christian and Olivier, farmers in Soil Conservation Agriculture, supported the writing and illustration work for several months, in order to bring their vision and avoid technical errors to slip between the pages.

The French Ministry of Agriculture and Food Sovereignty financially supported the development of this children's book.

Agroecology Dialogue Series

The Agroecology Dialogue Series is an initiative of <u>FAO</u> and the <u>Biovision Foundation</u> in support of the <u>Agroecology</u> <u>Coalition</u>. It is organized as part of the Food Policy Forum for Change.

The series consists of three thematic dialogues that aim to identify entry points, opportunities, building blocks, innovative approaches and institutional frameworks that can support the upscale of agroecology. Between 60 and 90 participants contributed to each dialogue from various backgrounds (scientists, government representatives, civil society organizations, intergovernmental organizations, private sector, and others) and sectors.

The key findings and recommendations of each dialogue were summarized in three outcome briefs.

These policy briefs deliver #recommendations for policy makers and research organisations to accelerate foodsystemtransformation. Focus areas are:

- Synergies between agroecology and the territorial approach
- Synergies between agroecology and the conservation community
- Agroecology as a response to agri-input scarcity.

To read the briefs, click here.

The notes were officially launched during the visit of Ms. Beth Bechdol, Deputy Director-General of the Food and Agriculture Organization of the United Nations (FAO) to Switzerland on February 22, 2023.

Evaluation of Agroecology in the Villages of Guiè and Douré (Central Plateau Region, Burkina Faso)

The GRET report 'Evaluation of Agroecology in the Villages of Guiè and Douré (Central Plateau Region, Burkina Faso)' was produced by Manéré Ouedraogo and Laurent Levard in the framework of the implementation of the Shared Sahelian Bocage project implemented within the framework of the ECOWAS Agroecology Program (EAP), with the financial support of the Agence Française de Développement (AFD).

To learn more and download this report, click here (in French). A summary note is also available in English here.

World Resources Institute Land Accelerator Training Program

World Resources Institute shares an open call for entrepreneurs to participate in its Land Accelerator program. The Land Accelerator is a training program and curated network for entrepreneurs who restore degraded forests and farmland.

From boosting agricultural yields to creating jobs and fighting climate change, there are multiple benefits to making degraded land healthy again. Landscape restoration creates environmental and economic benefits by revitalizing ecosystems and rural communities.

Across the world, companies with a wide range of business models are making money from growing millions of trees and transforming agriculture. Yet in rural areas, where producing agricultural commodities on restored land is cost-effective, entrepreneurs face limited access to capital and technical expertise.

The Land Accelerator, through its online and in-person boot camps and personalized mentorship, empowers entrepreneurs to pitch impact investors and sell their products more effectively. By fostering entrepreneurship, this first-of-its-kind program provides a cost-effective approach to restore - and develop - rural areas around the world.

To learn more, click here.



Based in Mexico, the Estampa Verde NGO has been working since 2019 to promote the Vetiver System on Keyline Hydrological Design.

The regenerative agriculture promoted by Estampa Verde seeks to give the soil, the foundation of life on earth, its rightful place. Estampa Verde promotes an agriculture that captures carbon in the soil to mitigate global warming, increasing the amount of organic matter through the Vetiver System, establishing a nature-based solution that controls soil erosion and degradation, improves rainwater harvesting at a farm scale, allowing to maintain or increase agricultural yields.

Estampa Verde NGO has been using the Keyline Scale of Permanence to design agroforestry systems based on Vetiver grass as the foundation to build a robust biological framework that allows soil restoration and water infiltration in different agricultural production systems. Estampa Verde has been working with farmers, policy makers, universities and research institutes on design and implementation strategies for agroforestry systems in the tropics of Veracruz, for important supply chains such as cigar tobacco, cattle, sugar cane and coffee.

You can find more information on the Vetiver System on Keyline in this short video.

To learn more about Estampa Verde's work with vetiver and download a vetiver handbook (in Spanish), click here.

The NGO Estampa verde has received various awards from the Vetiver Network International.





The organization Program to support the fight agains poverty for the emergence and restoration of sustainbale development (PALPER asbl-RDC) joined the international "4 per 1000" Initiative in September 2022 as a Partner. Based in the Democratic Republic of Congo, PALPER asbl-RDC aims to protect natural resources for the protection of the environment and the promotion of tourism, and fight against hunger and poverty within the population in difficult situation. To follow them on Facebook, click here.

Maximizing Photosynthesis and Root Exudates through Regenerative Agriculture to Increase Soil Organic Carbon to Mitigate Climate Change by Andre Frederick Leu, International Director, Regeneration International.

To read the text, click here.

EcoAgriculture Partners support Landscape Leaders with tools, training, facilitation and connections to manage land and resources holistically so people and nature thrive. Its co-convened initiative, '1000 Landscapes For 1 Billion People', has started highlighting landscape partners on its website. Now you can take a virtual tour and meet the people who call majestic landscapes in Kenya, Colombia and Spain home by clicking here.

Nkwa4change Solutions is a Minority-led grassroots organization championing sustainable and resilient development in extremely underserved communities in the neglected English speaking regions of Cameroon. Nkwa4change Solutions is are currently empowering over 200 peasant farmers in the production and effective use of liquid organic fertilizer. Nkwa4change Solutions is establishing a Regenerative Agriculture demonstration farm and trains peasant farmers to embrace and practice regenerative agriculture best practices.

To learn more, click here.

To see story telling videos about the urgent need to transition to regenerative agriculture, click <u>here</u>.



The Swiss company <u>Eltel SA</u> has been creating and maintaining natural areas for 40 years. During its work, Eltel SA removes organic materials that are not very interesting from a biological point of view, in order to make room for those that are, its objective has been to create a virtuous circle and make this waste useful: fertilize while decarbonizing!

In September 2022, Eltel SA won the "Decarbone your company" competition organized by 'JCI Neuchâtel' for its project to recover materials considered as waste to fertilize the soil and fix carbon dioxide (CO₂).

To learn more, click here (in French).

Eltel SA has just joined the international "4 per 1000" Initiative as a Partner.

India's largest agri enterprise, Samunnati is an open agri network to unlock the trillion-dollar-plus potential of Indian agriculture with smallholder farmers at the centre of it.

Headquartered in Chennai, Tamil Nadu, India, Samunnati has a presence in more than 100 agri value chains spread over 22 states in India and has powered over \$1Bn of gross transaction value in its journey so far. Samunnati currently has access to 1500+ Farmer Collectives with a member base of over 6 million farmers and envisions impacting 1 in every 4 farming households through its network by 2027. To learn more, click here.

In March 2023, Samunnati joined the international "4 per 1000" Initiative as a Partner.

Samunnati is one of the partners of the <u>regional meeting of the "4 per 1000" Initiative in Asia on 'soil carbon sequestration:</u> <u>potential, opportunities, and strategies for healthy soils and climate change mitigation</u>', from 19 to 21 september 2023, in Kanha Shanti Vanam, Hyderabad (Inde).

Regenerate your soils with plants

Biomede pioneer and world leader in plant extraction of heavy metals from agricultural soils. To learn more, click <u>here</u>. In March 2023, Biomede joined the international "4 per 1000" Initiative as a Partner.

A web platform to help the agricultural world in its agro-ecological transition

Developed and managed by the French company <u>Neayi</u>, Triple Performance is a web platform for sharing knowledge to help the agricultural world in its transformation.

This platform, a wikipedia of agricultural knowledge and a networking tool, aims to offer farmers and their advisors a tool that documents their experience feedback and all practices that enable them to deliver economic, environmental and social performance.

This tool - open source and in free access - is intended to be a common tool for farmers to give them the keys to respond to the challenges of transition they are facing today. To know more about it, click here.

In March 2023, Neayi joined the international "4 per 1000" Initiative as a Partner.

Based in the UK, the company 'Pastoral Agricultural Technologies' aims to support and promote regenerative organic agriculture and land management by helping farmers adopt sustainable farming methods that can regenerate soil health, improve biodiversity and sequester carbon. This company has developed 'Pastoral', a digital regenerative farming software that helps dairy and livestock farmers reduce their carbon footprint and dramatically increase profitability. The platform provides farmers with the intelligence and tools to track and locate livestock and dairy animals in real-time, monitor their health, reduce mortality, and introduce rotational grazing and regenerative farming practices. The software uses satellite data and self-charging, solar-powered animal GPS sensors to measure and mitigate carbon emissions, participate in net-zero schemes, and conduct carbon reporting.

To learn more, click here.

In March 2023, Pastoral Agricultural Technologiesjoined the international "4 per 1000" Initiative as a Partner.

'Pastoral Agricultural Technologies' a rejoint l'Initiative internationale « 4 pour 1000 » en tant que Partenaire en mars 2023.





To be read!

Soil Carbon Notes #2 / Executive Secretariat of the international "4 per 1000" Initiative

"2022, the year of the 3 Rio Conventions' COPs on Desertification, Climate Change and Biodiversity: what has been achieved in terms of considering soils and soil health? » by the Executive Secretariat of the international "4 per 1000" Initiative

To read this note from the Executive Secretariat of the international "4 per 1000" Initiative, please click here.



Activities related to the "4 per 1000" Initiative

The 22 World Congress of Soil Science report recommends that to raise soil's political profile, we must look at three phases of soil policy evolution:

- Raising awareness by building an understanding among policymakers
- Raising ambition through joining forces and building a case for soil in pivotal umbrella policies
- Building a case for soil execution using a detailed and targeted policy development, building consensus at strategic and operational levels.

Read more here.



A must see!

'Les Yeux vers l'Orient', a documentary written and directed by Louise Mariani, Antoine Perdereau, Lucas Veysman and Ali Hatimy, and produced by the association 'Sous l'Ombre de l'Arbre' - March 2023

The film "Les Yeux vers l'Orient" (Eyes to the East) gives a voice to a dozen farmers from the Balkans, Turkey and Georgia. They share their tips, their daily life and their fears in the face of economic and climatic metamorphosis. These regions, at the gates of Europe, are rich in men and women with inspiring ideas, as many avenues for reflection on our way of producing and conceiving agriculture.

'Terres nourricières', a documentary in French by Gabriel Martiarena and Emmanuelle Sudre - France 5 - 2020 Agriculture is a practice that has been part of the landscape for nearly 10,000 years and is one of the most powerful engines of human development. To feed the world, farmers have devised ingenious techniques. They have shaped their environment to make fertile deserts or rugged mountains cultivable. Over time, they have been able to obtain abundant harvests. Baptiste Grard, ecologist and researcher at INRA, travels the world to discover prodigious agricultural structures - such as the rice terraces in the Philippines -, plant treasures and futuristic projects.



To listen ...

CAMBIUM, the agroforestry podcast (in French)

With Cambium, meet the farmers who, all over France, make trees the ally of their agricultural practices.

How can trees transform agriculture? - The regenerative agroforestry podcasts Listen here.



Follow the international "4 per 1000" Initiative on social networks!

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1

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YouTube: 4p1000 Initiative

www.youtube.com/channel/UCvBmNtaHxi3PcvbUkkL_UQg

If you would like the "4 per 1000" Initiative to relay your publications on its own social networks, please add the following mention at the bottom of the information you publish: @4p1000initiative



The international "4 per 1000" Initiative in a figure ... 763 Partners including 337 Members! (March 2023)

All countries or organizations that wish join the Initiative (see here how to join) send their application to the Executive Secretary who controls the completeness.

If the application is complete, the Executive Secretary submits the list of new partners and members to be approved to the Consortium of Members or to the Bureau (depending on the time of year), at the beginning of each meeting.

After this formal approval, the new partners and members are included in the official list.

Listing of the Consortium of Members and Forum of Partners of the Initiative

"4 per 1000" Initiative April 2023 **#20**





They have joined the International "4 per 1000" Initiative!

(between January and March 2023)

International & regional organisations

Conscious Planet - United States of AmericaTo learn more, please click <u>here</u>.

Research and educational bodies

National Institute of Agricultural Sciences - Republic of Korea

To learn more, please click here.

Civil society & non-profit organisations

AFE BIEN ETRE - Mali

To learn more, please click here.

Digital Green Foundation - United States of AmericaTo learn more, please click here.

Nkwa4change Solutions - Cameroon

To learn more, please click here.

Commercial & for-profit organisations

BIOMEDE - France

To learn more, please click here.

Commercial & for-profit organisations

ELTEL S.A. - Switzerland

To learn more, please click here.

Goodwill Foods co. ltd. - Taiwan

To learn more, please click here.

Neayi - France

To learn more, please click here.

Pastoral Agricultural Technologies - United KingdomTo learn more, please click <u>here</u>.

Samunnati Financial Intermediation and Services Private Limited - India

To learn more, please click here.

Soil Carbon Industry Group - Australia

To learn more, please click here.

See here how to join the « 4 per 1000 » Initiative.

To support and donate to the "4 per 1000" Initiative, please contact the Executive Secretary by e-mail: secretariat@4p1000.org

To view the presentation file, click here. We thank you in advance for your support.

April 2023 #20

The international "4 per 1000: Initiative: Soils for Food Security and Climate"









https://4p1000.org

Any ideas, any suggestions...

For the next newsletter, please send us your information, your events,... **no later than June 10, 2022**. You can send an e-mail to socialmedia.admin@4p1000.org.