

some farmers are hesitant to adopt more sustainable practices since they often require more work and planning efforts and bear the risk of reduced income, at least during an initial phase of transition. Here, policy needs to step in and set the right incentives to give producers the opportunity to invest in the long-term sustainability of their soils instead of sacrificing their most important resource for short-term profit. Moreover, external costs of intensive agriculture (e.g. soil erosion, polluted drinking water, soil carbon loss) need to be accounted for.

Agricultural activities have a major impact on soil health and the ability of soils to provide the

crucial ecosystem services our society depends on. If managed accordingly, soil biology can release a huge and currently under-utilised potential to produce agricultural yields in a sustainable way, so that the soils of today can still nourish the generations of the future.

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“ The private sector is keen to invest in soil ”

The Coalition of Action 4 Soil Health has set itself the goal of improving soil health globally. Co-Leader Leigh Ann Winowiecki explains the barriers which have to be cleared on the way there and why she is optimistic about achieving this goal.

Ms Winowiecki, in a nutshell, what is the Coalition of Action 4 Soil Health?

The CA4SH took root in the United Nations Food Systems Summit last year – as part of the stakeholder engagement process. Dr Rattan Lal and I were leading the restore package under Action Track 3 and brought together all game-changing solutions submitted by the stakeholders related to soil health. Based on this, we formed the Coalition of Action 4 Soil Health. It is anchored in the UN Convention to Combat Desertification, the UNCCD, and we have a core team made up of the Inter-American Institute for Cooperation on Agriculture, the IICA, CIFOR-ICRAF, the World Wildlife Fund and the UNCCD. Right now, we have over 100 members – from NGOs and farmers organisations through countries and private sector to research. And the Coalition is continuing to grow.

What do you seek to achieve with the Coalition?

The goal is to scale soil health globally. We aim to do this by recognising that there are key barriers that must be addressed. These include implementation barriers, policy barriers, monitoring barriers and financial barriers. In order to address these, we have four targets – very simple ones. One, we want policies to incorporate soil health, and that’s using the best available evidence. Two, we want to overcome the remaining research gaps that exist around practices and soil health indicators by doing that with research and development. So

it’s not research for the sake of research, but really doing applied research that can support development initiatives. Three is scale – the number of hectares under healthy soil practices. And four is to increase financial incentives five- to tenfold, and that includes public and private finance. Studies have shown that between 20 and 40 per cent of our Earth surface is degraded. This is severely limiting the soil’s ability to provide essential ecosystem services, which includes water holding capacity, water quality, carbon storage, nutrient cycling for plants ... So we see the Coalition as bringing people together, aligning the SDGs with the three Rio Conventions – the UN Framework Convention on Climate Change (UNFCCC), the UNCCD and the Convention on Biological Diversity (CBD) – to scale soil health.

These Conventions are now 30 years old. How is it possible that, despite these international agreements, we see more land being degraded every year?

One of my theories is that we take soil for granted and that we really tend to overlook it. So much of the beauty of soil is unseen, because to do so, you really have to dig into it, and sometimes you need a microscope. In a recent interview, Dr Rattan Lal said: “Everyone should know what healthy soil looks, feels and smells like.” There are so many people who never have put hands in the soil or thought about soil. Also, soil has not been officially recognised in the UNFCCC. That’s why I’m really excited about this Soil Health Resolution

that we drafted to support Member States who want to take soil health forward. Now is the time, we have growing momentum around soil, and we have to tap into that and use it, so that we really can raise awareness and support farmers to scale soil health practices.

Can you share success stories of your work?

Yes, definitely. Here, we can mention three different pillars. One is: we know how to monitor soil health. It is no longer “Oh, we don’t know how to monitor, we don’t know the indicators, let’s talk about indicators.” We know how to do it, and we are doing it. At ICRAF, we developed a robust monitoring framework that samples landscape-scaled variability, because we know that soils vary with space. They also vary through time with the management. One of the key indicators we use is soil carbon because it is quantifiable and responses to management, so we can track changes over time and map this. And monitoring has become less expensive. Today, with soil spectroscopy, which uses light to analyse soil, we can get multiple properties in 30 seconds for four dollars compared to one sample with one property for hundreds of dollars. These advances in monitoring and technologies provide the evidence that the policy sector needs.

What else?

The second success story is that the private sector is really keen to engage in soil health. We have the World Business Council for Sus-

tainable Development, or WBCSD for short, which actually already launched its Soils Investment Hub back in 2014, but it was just lingering around because it didn't have the evidence and the awareness and the momentum that we have now. Ten private companies have signed on to the Coalition with the commitment to support soil health. This is a very different story from that of the past. And looking at their commitment letters, you see that they want evidence-based solutions. For the private sector to get involved and to de-risk investments, we need the evidence, and that's fantastic.

And the third pillar?

We have this massive collaboration. This is really a story of everyone letting their guard down and supporting with a unified voice. We actually say soil is a unifier. We don't say "agroecology", we don't say "regenerative agriculture", although we can list all of that. But unfortunately, some of these terms have become so political. And soil is a unifier. Who is going to say that he hates soil? No-one. We all depend on it. With the CA4SH, we have a multi-stakeholder partnership, where the scientists learn how to speak to the private sector, and we have the farmers organisations, so everyone is unified around the table, recognising the importance of soil.

What are the main challenges farmers are faced with regarding soil health?

Let's take the example of Kenya, where I'm based. Here, population pressure has moved farmers into marginal lands – we are talking about drylands where soil fertility is often low. Now, with climate change, we can't predict the rains anymore. They are erratic, and that's a huge challenge. Moreover, in the initial stage of conversion, you can lose up to 50 per cent of your carbon in the soil. Then, with continuous mining of the nutrients, your fertility just continues to drop. So it's really critical that farmers are re-building the soil. And often they are not the first ones converging, they are actually inheriting problems of the past. So you have climate change, you have fertility status, and the third point is the financial incentives. That's why one of our targets is to increase financial incentives. These incentives need to be transparent, and they need to be equitable. We need women, we need youth involved to make that transition to healthy soil practices.

Do you feel that there are different challenges for small- and large-scale farmers?

Well, although I cannot really speak for large-scale farmers, I'm from the US, and I don't

think anyone would say that US farmers are rich. They are really struggling, and that's why they had to become so large. They just couldn't make money on a small scale. It is stressful, and it's such hard work. I think we really need to build the respect for farmers again, as a profession. Most people seem to want their kids to be doctors or lawyers or something like that. And until we change this perception and increase the reputation of farmers globally, we are going to have these same struggles, large-scale and small-scale. This is one of the underlying challenges that farmers face.

What is your work on the ground like?

We have several flagship initiatives. IICA, for example, is working with the "Living Soils" initiative in Latin America, and we as ICRAF are working on farmer-centred land restoration here in Kenya. We have a set of criteria for what constitutes a flagship project, and our partners are registering for the Coalition. Then we start connecting them with the farmers and ensure that their voices are heard.

You mentioned some of the barriers on the way to healthy soils – what about political will?

We absolutely have to work on this. A recent study that examined more than 300 nationally determined contributions revealed that less than 30 even mention soil – whether it was soil fertility or soil health. In one of our projects, we were looking at six African countries and were interviewing the high-level officials asking: "Why wasn't this included?" Well, to be fair, these governments are dealing with a lot. So our pathway for communicating with them is to bring in some awareness-raising, showing how central soil is to the restoration commitment they've made, the climate commitment, the food security commitment, the biodiversity commitment. I think if they see how investments in soil health can help achieve these other targets, we will be able to change a lot.

Are there countries that could serve as a role model?

Oh yes. For example, the Australian government has a soil health strategy which is fantastic. They have a national soil advocate, and that person sits in the Prime Minister's office. They are members of the Coalition and are big supporters. We showcase them to demonstrate to countries that it is possible to develop a soil health strategy, and what are the steps to get there. The European Union are putting soil in the forefront now, too. They released their soil strategy last year. It is also interesting to see that several African countries have signed on to the Coalition early. They are aware of the

urgency that land degradation is presenting. So I am actually quite positive here.

What are the next steps?

Well, getting more stakeholders involved is one. Anyone who wants to join us can sign a very simple support letter, and then they are included in the partners' meetings, the newsletter and the logo. The next step is getting the Soil Health Resolution through. 2022 is the year of the Conferences of Parties, and we want to make sure that soil is recognised in the UNFCCC. It is also already loosely in the CBD, and we had a huge success in the UNCCD with the final declaration, which includes the commitment to accelerate the restoration of one billion hectares of degraded land by 2030. Resource mobilisation is another step, so that we can have more interaction on the ground with farmers, which is critical. And then there is really showcasing how this public-private partnership can lead to transparent and equitable financing for farmers. The final step is getting some of these agreements on course that keep performance indicators for soil health agreed upon by all the stakeholders, including the private sector. I think that's where things are really getting interesting.

Interview: Silvia Richter



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