Study Brief 5: Learning

Working in partnership to communicate down-to-earth messages on integrated soil fertility management

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Summary

The Africa Soil Health Consortium (ASHC) works to build capacity and develop exemplar development communication materials, primarily for smallholder farmers in sub-Saharan Africa on integrated soil fertility management (ISFM).

Soils in most sub-Saharan countries have inherent low fertility and do not receive adequate nutrient replenishment. Consequently, yields are relatively low, despite high potential for improvement[1] (FAO 2001). Improving soil health is the underlying challenge that ASHC seeks to address. ASHC's approach is to work with partners to achieve both access to and understanding of ISFM knowledge.

Accessing reliable ISFM information, as well as addressing the research/end-user divide, has been documented by a number of studies (Adolwa et al., 2012; Damisa *&* Igonoh, 2007[2]; Odendo et al. 2006[3]; Sanginga and Woomer, 2009[4]).

[1] ftp://ftp.fao.org/agl/agll/docs/foodsec.pdf
[2] Damisa MA and Igonoh E (2007) An Evaluation of the Adoption of Integrated Soil Fertility Management Practices Among Women Farmers in Danja, Nigeria. The Journal of Agricultural Education and Extension, 13(2), pp. 107-116
[3] Odendo M, Ojiem J, Bationo A and Mudeheri M (2006) On-farm Evaluation and Scaling-up of Soil Fertility Management Technologies in Western Kenya. Nutrient Cycling in Agroecosystems, 76, pp. 369-381
[4] Sanginga N and Woomer PL (2009) Integrated Soil Fertility Management in Africa: Principles, Practices and Developmental Process. Nairobi: Tropical Soil Biology and Fertility Institute of the International Centre for Tropical Agriculture.

The challenge for ASHC is to find ways to share knowledge through a variety of channels and create nuanced messages that can be transmitted in environments constrained by low levels of adult literacy, especially amongst women smallholders.

With that in mind, ASHC builds capacity by developing resources, including 'how to' guides covering the major tasks necessary for creating communications materials, handbooks and cropping guides for use in higher levels of education and training. The project also encourages active participation in write—shops. These are highly structured activities, driven by simple intuitive exercises, which help determine the media choices and messages for getting smallholder farmers to take up ISFM practices and techniques at scale.

Where ISFM is applied with other good agricultural practices – the combined effect of seeds, fertilizer and organic matter – should in most cases double crop production supporting both food security and incomes.

Sources of ISFM knowledge can be diverse from local community church groups to international scientists (Adolwa et al., 2012[5]), so ASHC's approach of working with a variety of clients and partners is critical to achieving success at scale. ASHC produces content wherever possible as open source and open access with opportunities for groups to customize materials in line with local needs and customs (an essential element of ISFM).

Two further factors are fundamental to ensuring that knowledge enhances community resilience. These are understanding and appropriate application (Visman, 2014[6]). ASHC's approach is to work with partners to achieve both access to and understanding of knowledge. ASHC uses a participatory write-shop as one of its approaches to developing accessible materials and works with clients and partners to test materials to ensure the content resonates with audiences.

Although ASHC's scope does not extend to application of the knowledge, we aim to work with clients based on demand and the need to ensure ISFM research is put into practice and ultimately helps farmers increase their yields. Increasingly, ASHC is supporting research partners to develop communication plans that involve government and NGO-led extension.

Project objectives

The Africa Soil Health Consortium project goal is to improve knowledge on Integrated Soil Fertility Management (ISFM) at all levels of society in both public and private sectors from policy makers to university lecturers, extension workers, input suppliers and the farmers in order for ISFM to contribute to improved livelihoods.

The first three objectives refer to the need to develop tools for disseminating lessons to get ISFM research into use:

- Define and describe the ISFM framework and prepare generic core reference content that applies across the cropping systems
- Prepare core cropping systems reference content that incorporates ISFM
- Build capacity of national product preparation teams to develop customized site specific material for ongoing development initiatives in the identified cropping systems and contribute to impact on livelihoods

The final two objectives refer to the need to share lessons and develop communication mechanisms:

- Learn and share lessons related to the process of knowledge synthesis and communication and how this contributes to change

[5] Adolwa IS, Okoth PF, Mulwa RM, Esilaba AO, Mairura FS, and Nambiro E (2012) Analysis of Communication and Dissemination Channels, Influencing the Adoption of Integrated Soil Fertility Management in Western Kenya, The Journal of Agricultural Education and Extension, 18:1, 71-86

[6] Visman E (2014) Unlocking the potential of science and technology to enhance community resilience through knowledge exchange, Overseas Development Institute Working paper Number 76

- Communication of mechanisms for application and use of ISFM framework and of the value of using ISFM[7]

Findings

A market survey was carried out in April 2014 to seek inputs and views on ASHC processes and products from both clients and partners in Phase 1 and potential clients and partners for Phase 2. Key informant interviews were carried out with six NGOs; nine local and international research agencies; three extension and government outreach organizations and seven private sector companies and representative agencies, including agro-dea|ers. Interviewees were asked how they access and use agricultural and ISFM knowledge, how they develop and use materials and, if relevant, their experience and future expectations for ASHC. The review indicated a clear continuing demand and need for ASHC's services and outputs. **All interviewees expressed enthusiasm about the role ASHC has to play in creating better access to ISFM knowledge, although some had been unaware of the breadth and depth of the ASHC offering.**

Findings on building capacity

One of the key outcomes of Phase 1 was developing write-shop models suitable for the development of different products. For the cropping guides, this process was mainly about matching content to a pre-agreed structure. For farmer-friendly materials, it involved scientists, extensionists and, in some cases, farmers working with communications professionals to shape messages. Through post-write shop surveys, participants regularly achieved client satisfaction ratings of over 80% about the process, for example, see 'ASHC-led rice write-shop in Ghana receives record level of satisfaction'.

By creating a series of intuitive exercises, ASHC found that leaders naturally emerged to facilitate and consolidate the group's thinking. This helped get the content right and leave behind skilled practitioners capable of replicating the approach without ASHC input. Over 200 people have now participated in the write-shops.

ASHC had assumed that resources could be found on the internet to help with the writing and production of development communication materials. However, what exists is piecemeal and often hard to find. ASHC has, therefore, created a place on its website to signpost good resources, such as the USAID radio pack, and fill the gaps with 'how to' sheets and literature reviews on communication.

The ISFM handbook is a rich resource for the background principles on ISFM. However, higher and further education needed different mixes of materials for curriculum enrichment. These draw from the ISFM handbook but have a different emphasis depending on the needs of the course.

A survey of 1,500 agricultural researchers in developing countries in Africa, Asia and Latin America indicated that they still favour more traditional methods of communicating their research, including traditional journal papers, books and conference presentations (Edge et al., 2011[8]). This was also reflected in ASHC write-shops where scientists often found it difficult to write for field-based target audiences.

As technology becomes more accessible, researchers are starting to move towards digital platforms but there is still clearly a need for support to create access to the research by intermediaries and end-users. Some researchers interviewed as part of the ASHC market survey indicated they had gained practical communication skills from engaging with the project but also pointed to the important role that ASHC has played in bringing people together.

As one interviewee explained, "ASHC has strengthened partnerships … **CABI is making sure there is more consistent communication and interaction is sustained between partners who previously only met when there are official meetings**". Central to this has been the involvement of

[7] Source BMGF application
[8] Edge P, Martin F, Rudgard S and Thomas NM (2011) Researcher Attitudes and Behaviour Towards the 'Openness' of Research Outputs in Agriculture and Related Fields, Agricultural Information Worldwide Vol. 4 Issue 2, pp. 59-69. 11pp.

extension services and where possible famer's representatives and women's groups. These diverse voices in the write-shop process have helped develop clear messages.

Findings on producing handbooks and signature products materials

In the first 12 months, despite being a free consultancy service, ASHC struggled to gain clients. Organizations were nervous about the offer. It was of unproven quality and there was a concern that the project was trying to claim others' outputs and outcomes as its own.

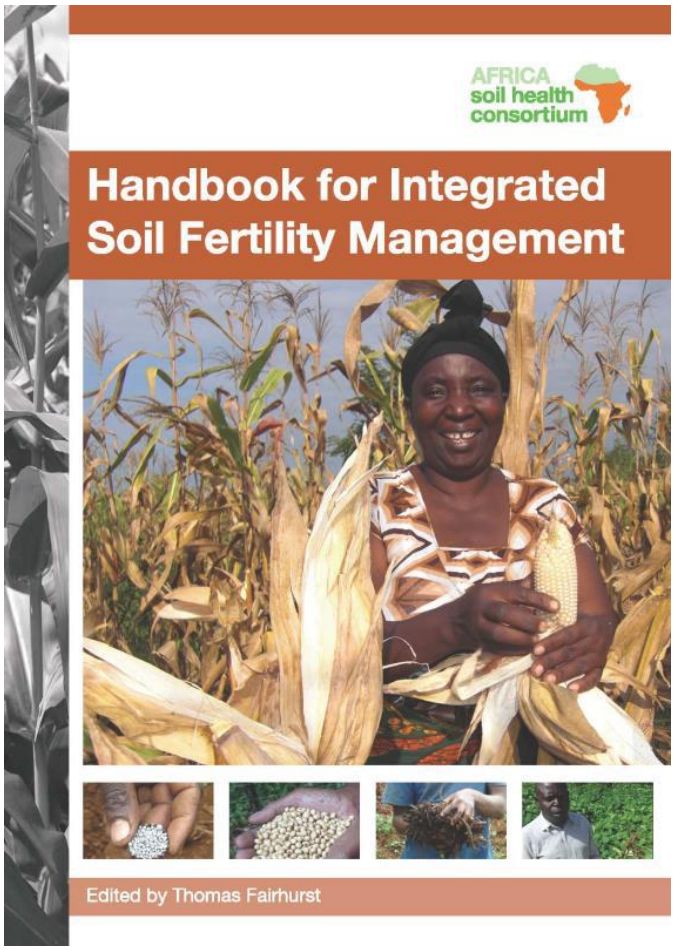
ASHC had to build trust and create effective relationships. In 2012, ASHC changed its staff structure, placing more resources and effort around the delivery of material development services. The delivery team adopted a more customer-focused approach with improved processes.

In October 2012, ASHC launched the ISFM handbook at the ISFC conference held in Nairobi, Kenya. The launch was well-received by the ISFM community and was an important event in building support for the work of ASHC. It demonstrated that ASHC is producing high quality, relevant publications.

Convening groups of ISFM experts and opinion formers is a complex and expensive process. ASHC has had a policy of working within events organized by others to get its message directly to key audiences.

The ASHC funders challenged the project to produce some signature products in order to communicate the concept of ISFM.

The first is a **short film** on ISFM. Agro-Insight produced a film that sets out the principles of ISFM using a wide range of examples from different African countries. This online film is delivered in the three main languages of the project (English, French and Portuguese). There are five minute and 22 minute versions, the former designed for policy audiences and the latter for college and professional development uses.



The second is the **ISFM handbook**. This is an extensive technical manual that comprehensively covers ISFM practice and policy across Africa. It is now being used as a key resource in many NGOs, research organizations and universities with 2,800 copies being distributed across more than **33** organizations, and **17** countries. There was significant demand from the francophone community which prompted it being translated into French. It was also translated into Portuguese. In the 2014 market survey one end—user explained, "We have used [the handbook] a lot even to train people at a scientific level and for extension [we] also use it to train students. We have agricultural students who come to field days as they require more in-depth understanding of agriculture."

Five **cropping guides** have also been produced with black and white illustrations for ease of photocopying and printing, and a full colour version. These are available in English, French and Portuguese. These cover banana and coffee, rice, maize, cassava, sorghum and millet, and provide extension workers with detailed and practical information associated with these crops and cropping systems.

Findings on youth campaigns

The ASHC team has re-evaluated its approach to gender and places a greater emphasis on working with partners to make young people the conduit for turning ISFM information into farming families.

In Kenya, Well Told Story has developed a multi-media, multi-channel communication approach targeting young people (from eight years of age to mid-20s), using the ‘Shujaaz’ comic and FM radio stations.

For around four years, Well Told Story has been producing a monthly comic distributed in urban, peri-urban and rural Kenya targeting young people. In addition, a daily radio programme is syndicated to over 20 radio stations. ASHC used this established communication channel to disseminate two stories, one looking at the principles of ISFM and a second looking at sources of organic matter suitable for making compost, either on the farm or a business opportunity in peri-urban areas.

The comic story has been repurposed in Kiswahili for Tanzania, in a partnership with F|PS-Africa, and 517,000 copies have been circulated to young people in Kenya and Tanzania.

ASHC commissioned Jacaranda Design, which produces the Young Africa Express Magazine, to run an ISFM poster competition amongst youth in Kenyan schools. This involved developing ISFM materials to be delivered in the science curriculum and developing art and curriculum enrichment materials that encouraged young people to make a poster on ISFM. The Young Africa Express curriculum development materials and poster competition have shown that formal education can be used to validate and encourage interests in 'smart farming' as a career aspiration.

In Ethiopia, the ISFM products for farmers will be distributed to school children to take home to their parents to ensure they are targeted at literate households.

In Ghana, with the support of AGRA, ASHC was invited to help to draft textbook content for the re-engineered curriculum. The policy to change the curriculum put in place by University of Development Studies (UDS) required high quality learning materials. ASHC worked in partnership to help structure and write resources, based on a set of lecture notes produced by Ghanaian experts in ISFM. This intervention showed the potential of ASHC to help cement a policy change, rather than to influence new policy positions.

Impact

ASHC is in its early stages of development and, as such, in its early stages of reporting on impact. In Phase 1, ASHC innovations funds explored SMS, television, radio, comic books, competitions and the development of curriculum enrichment materials. Phase 2 will be particularly focused on approaches for low-literacy audiences to find innovative communication solutions. These will be particularly important to reach marginalized communities, young men and women of all ages.

In terms of outputs, by September 2014, ASHC will have developed 130 farmer-friendly products for use with smallholders (a complete list of communication materials is below). ASHC currently has worked with over 43 partners across Africa.

As the project progresses, ASHC is developing new ambitious targets for broadening the reach of its communication materials. For example, in March 2014, ASHC provided technical support to scientists and extension teams from four countries to produce extension support materials to support scale up of use of vermicomposting and Rhizobium inoculation technologies. In this write-shop, combined commitment and resources were dedicated to ensuring communications products from the write shop reach more than one million smallholder farmers across four countries during the 2014-2015 cropping seasons.

In Phase 2 of ASHC there is a key focus on continuing to build and promote networks and supporting virtual communities of practices. The networking and collaborative working tools together with

templates, ‘how to’ guides, exemplar materials and ISFM references material will create a comprehensive one-stop-shop for anyone seeking to create new ISFM communication material.

In Phase 2 we will diversify our approaches but continue to use participatory approaches that involve the end-users and testing of communication materials. The success of participatory development communication is well-established and there is a growing need for these approaches (McIntyre et al., 2009[9]). ASHC will continue to build on the success of our participatory approaches developed in Phase 1. In Phase 2, cropping guides and curriculum support material will be developed using wikis and through a community of practice.

Initial indicators show that ASHC is beginning to change farming practices. ASHC was involved in the production of a ‘Shamba Shape Up’ broadcast produced by Mediae Trust on changing farming practices. After viewing the broadcast, 36% of the audience said they would change their farming practices. Of these, 26% said they would change their soil fertility practices (using manure and fertilizer). Africa Centre for Applied Research (ACAR) – an independent research – worked out that the net benefit of these farmers’ changed practices in maize production amounted to US$13,746,233.

Impact can also be demonstrated by additional funding leveraged through other donors. For example, The Alliance for a Green Revolution in Africa (AGRA) has provided a US$5.4 million investment for the Optimizing Fertilizer Recommendations in Africa (OFRA) project. This project works in partnership with the University of Nebraska-Lincoln and National Agricultural Research organizations in 13 countries and seeks to increase crop productivity, profitability, and food security in smallholder farming systems in Africa.

What others have said about ASHC:

Dr Rebbie Harawa, AGRA

“ASHC Phase 1 was a good starting point; an opportunity to bring the dissemination plans of partner agencies to life. Some grantees had tried on their own to disseminate information, but lacked repackaging expertise. ASHC brought communications expertise to the table, infused professionalism into the process, and became a catalyst for sharing information, as well as helped build grantees’ capacity to think and plan for non-technical audiences. ASHC was useful because it helped purely research-focused partners to think about other audiences. The ISFM handbook is one of the simplest scientific publications in this subject area — a very useful tool for students and extension workers”.

The wider context

Building on the success so far, ASHC is now developing its business case for a Phase 2 application to BMGF for funding to cover the period from 2014 to 2018. This funding will not only allow ASHC to further develop, but also enable the continuation of the collaboration with the AGRA-funded OFRA project, which ends in 2016.

Efforts will continue to find further investors to diversify the crop choices beyond the cash-crop dominated current priorities. These crop choices inhibit ASHC’s ability to make a significant ISFM contribution to women’s priority crops, which can create a more balanced information portfolio and engendered approach.

Outputs

See attached document listing ASHC materials

[9] McIntyre B, Herren HR, Wakhungu J and Watson RT (eds) (2009) International assessment of agricultural knowledge, science and technology for development (IAASTD): a synthesis of the global and sub-global IAASTD reports / Washington DC: Island Press.
http://www.unep.org/dewa/agassessment/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads_Synthesis%20Report%20%28English%29.pdf

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AGRA

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Project partners

For a full list of ASHC partners, please see: www.cabi.org/ashc

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