INTERNATIONAL COTTON ADVISORY COMMITTEE

1629 K Street NW, Suite 702,
Washington, DC 20006, USA

FINAL MINUTES

46TH Meeting of the Expert Panel on Social, Environmental and Economic Performance of Cotton Production - SEEP
Friday, March 23, 2018
Bremen – Germany

Members:
- Mr. Allan Williams (in the Chair)
- Mr. Leon Picon, Turkey
- Mr. Jens Soth, EU
- Dr. Kater Hake, USA
- Dr. Bill Norman, USA
- Dr. Bruno Bachelier, CIRAD (By teleconference)
- Ms. Elke Hortmeyer, EU
- Mr. Damien Sanfilippo, (for Alan McClay) BCI

Observers:
- Mr. Wolfgang Bertenbreiter, GIZ
- Ms. Mandy Piepke, German Textiles Partnership
- Mr. Lyman Stone, USDA
- Mr. Mark Messura, Cotton Incorporated
- Mr. Neal Gillen, Representative of the ICAC Secretariat to UNCITRAL
- Ms. Katharina Graf, GIZ
- Mr. Jerzy Kotuhs, Gdynia Cotton Association

Secretariat:
- Mr. Kai Hughes, Executive Director
- Ms. Yana Pomerants, Executive Assistant

1. Approval of the Minutes 45th Meeting in Tashkent 2017

Allan Williams, Chair of the SEEP panel opened the meeting by welcoming the delegates and observers present. The Chair asked all members if they have any comments or edits to the minutes for the meeting in Tashkent. Seeing none, the minutes were approved.

2. Adoption of the Agenda

The Chair inquired if there were any proposals for changes or concerns regarding the agenda and seeing none found the agenda approved.

3. Follow-up on the 3 areas prioritised by SEEP:

Soil Health (Attachment 1): Dr. Kater Hake gave a brief background about the importance of the soil health and noted that the Tool is designed to help cotton producers to improve their productivity and profitability. The following information was provided on how the Tool would be used:

a. Start with the problems observed in the field and follow the diagnostic key to suspected problems.
b. Each problem will include confirmation methods, references for different regions and a wide range of practices to minimize specific problems for growers with diverse resources.
c. Some soil health problems interact, which requires growers to carefully consider the practices that are most appropriate for their fields
d. As the tool is being used, producers are encouraged to leave comments, enter pictures and data that will allow its continual improvements.
e. The tool will be provided free of charge
f. Sample background information needed: Country, province/state, average annual rainfall, average in-season rainfall, elevation, latitude: longitude, surface soil type, crops grown in the area and irrigation.

Dr. Hake presented the following timeline for the implementation of the Tool:

- 03/2018: SEEP committee reviews & improves proposal for Soil Health Tool
- 04/2018: SEEP members identify potential national collaborators
- 05/2018: SEEP Identified National Collaborators contacted by project coordinator (Dr. Bobbie McMichael, retired USDA-ARS Soil Scientist, currently affiliated with Texas Tech University)
- 06/2018: Feedback from SEEP Identified National Collaborators incorporated into proposal
- 07-08/208: Broad outreach for additional National Collaborators
- 09-12/2018: National Collaborators and Dr. McMichael create global dataset
- 01-03/2019: ICAC contracts with software developer to create beta version (Cotton Inc. will fund)
- 04-06/2019: Existing and New Recruited Collaborators contribute and evaluate beta version
- 07-08/2019: ICAC contractor updates software
- 09-10/2019: Collaborators evaluate version 1.0
- 12/2019: Soil Health Tool version 1.1 demonstrated at ICAC 2019 Plenary, SEEP creates plan to maintain Soil Health Tool and publish algorithms, references and early use statistics and examples as a SEEP publication in 20200
- 01/2020 – Collaborators can utilize ICAC Soil Health Tool software to create their own National Soil Health Tools

Dr. Hake noted that identifying soil health experts in different countries is essential as a starting point to develop the Tool. Dr. McMichael would be in charge for creating the global dataset in collaboration with national experts. Dr. McMichael has been working as a consultant for Cotton Incorporated for the past 8 years. Mr. Hake also proposed to use the same model implemented when developing the "Crop Development Tool", which was on the ICAC website and funded by Cotton Incorporated. It was agreed that the ICAC should look at the state of the art of the electronic information available for cotton production, especially on the soil health issue. The Executive Director of the ICAC, Mr. Kai Hughes, noted that this task could be done by the Head of the Technical Section, Dr. Keshav Kranthi.

The following comments were made for consideration by Dr Hake:

- Mr. Jens Soth enquired about 'niche' soils, i.e. soils not normally associated with cotton growing, which would potentially require a significant degree of information regarding

appropriate management practices based on detailed local knowledge; Dr. Norman indicated that the Tool will be a 'living' tool that can be expanded as time goes on. To give the widest coverage, the initial focus should be on the most frequently encountered soils, and 'niche' soils can be added in time.

- Mr. Soth suggested that the indicators framework could be integrated into the Tool, i.e. the Tool could be used to help collect relevant indicator data, a concept which was endorsed by Dr Norman.
- Ms. Elke Hortmeyer suggested that the private sector actors who work with farmers (e.g. seed companies, ginners with extension agents) could be approached to provide their domain expertise in order to help with diagnosing and developing an appropriate set of recommendations for the app. It was agreed that this would appropriate to do after the initial pilot stage.
- Mr. Bertenbreiter offered to approach his contacts in east Africa and Mr. Soth offered to present a slide on the concept at the upcoming Textile Exchange Round Table.
- Mr. Hughes asked to clarify the logistics of selecting the national collaborator on soil for each country. Dr. Hake replied that he would write a job description to facilitate the process. Dr Hake estimated that the time commitment required from a national coordinator would be about a month.
- Mr. Damien Sanfilippo indicated that BCI would be very interested in supporting the Tool, and especially in filling in any identified gaps (e.g. in identifying an appropriate national coordinator).
- It was agreed that in the initial stages of developing the Tool a small group should be established to 'pilot' the concept, rather than trying to cover as many geographies as possible.
- The need to collaborate as broadly as possible was discussed, including the importance of identifying what apps might already exist that provide a similar service to the proposed Tool.
- Mr. Soth highlighted the need to link in FAO via Dr. Mancini.

Testing and implementation of the guidance framework: discussion of the final 'lessons learned' report (Attachment 3): Mr. Jens Soth apologized for not being able to present an update of the "lesson learned report". However, he briefly commented on some of the advances made on the report, following the recommendations received in the SEEP meeting in Rome:

- Change of title, introduction and quantitative focus
- Inclusion of an annex with original survey questions
- Inclusion of pilots in West Africa by CIRAD

However, the following activities are still pending:

- Collect and process the information of pilots in West Africa by FAO.
- Include processed information in stocktaking tables and update corresponding report conclusions.
- Collect and integrate detailed comments and amendments to the final report by SEEP members.

To a question from the chair about the timeline for the final report. Mr. Soth replied that the document should be ready by the end of April.

4. Update on the ICAC Strategic Review

Kai Hughes, Executive Director of the ICAC, explained that the ICAC is undergoing its first major strategic review in over 10 years. The first stage of the strategic review process, which is the information gathering of other International commodity bodies and associations, has been completed. He explained that there were 7 ICBs, 5 Study Groups and 11 inter-governmental sub groups at the FAO.

Mr. Hughes noted that the next stage of the process is to get feedback from stakeholders working in the cotton industry. This information will be collected in two different ways, through a questionnaire and by meetings with delegates and members.

Mr. Hughes informed members that the strategic review process started with the ICAC staff discussion on its own internal vision and mission SWOT analysis. He discussed the SWOT analysis with participants and asked for their feedback and ideas. In the ensuing discussion, SEEP members stated that the panel should be considered a strength of the ICAC. They also agreed that the weaknesses are: the reputation of cotton, engagement with textile sector, and the final statements of the Plenary Meeting. The members of SEEP suggested that the ICAC should promote itself as the consensus body talking to the United Nations. In addition, the members suggested that there should be a structure in place to address disruptive technologies such as robot harvesters. The suggestion was regarding emerging technology and their impact on the job losses and that the ICAC should be always scanning the horizon for emerging trends and technologies.

Mr. Hughes concluded his presentation by asking members of SEEP to review the SWOT analysis and to provide their comments on the items that were not discussed in the meeting. He noted that the final results of the strategy review will be presented at the next Plenary Meeting in Cote d'Ivoire.

The chair commented that BCI and the International Coffee Organization-ICO have received funding from ISEAL for a project to develop cross-commodity relevant indicators that will measure sustainability, and the best way to communicate the information gathered. He noted that on behalf of SEEP he was approached to act as an adviser on this project, with a view to ensuring that the proposed cross commodity indicators are informed by the guidance framework developed by SEEP. The project application was 'high-level', and the specific project activities will be developed between now and June; he will provide a draft of the proposed project activities to the members of SEEP once received for review and comment. Mr. Damien Sanfilippo commented that the project also includes the Global Coffee Platform. He said that the scope of the project is much broader as it will include all crops that are covered by the organization. The project is related to BIG DATA and it is a great opportunity to enhance the utility and harmonization of the indicators recommended by the SEEP panel.

The chair noted that ISEAL, as part of approving the funding application, highlighted the high-level cross-sectoral support for the project as being an important component of its success. There is an opportunity for SEEP to better leverage this status to acquire the resources required to implement the guidance framework in a comprehensive and strategic way.

5. Next SEEP meeting in Cote d'Ivoire

The chair noted that it would be useful to meet again prior to the next Plenary meeting in December in Cote d'Ivoire and will circulate some options for a meeting in Europe based on coordinating with other conferences or meetings; the potential to meet immediately prior to the Plenary meeting, as was done prior to the Plenary meeting in Tashkent, will also be investigated.

6. Other business

The CHAIR thanked delegates and observers for their presence and declared the meeting closed.

The meeting was adjourned at 12:30 p.m.

Attachment 1. SEEP Committee Soil Health Tool Work Flow

- October 2017 – SEEP and ICAC Plenary adopts Soil Health objective

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- March 2018 – SEEP committee reviews & improves proposal for Soil Health Tool
- April 2018 – SEEP members identify potential national collaborators
- May 2018 – SEEP Identified National Collaborators contacted by project coordinator *(Dr. Bobbie McMichael, retired USDA-ARS Soil Scientist, currently affiliated with Texas Tech University)*
- June 2018 – Feedback from SEEP Identified National Collaborators incorporated into proposal
- July/Aug. 2018 – Broad outreach for additional National Collaborators
- Sept/Dec. 2018 – National Collaborators and Dr. McMichael create global dataset
- Jan/March 2019 – ICAC contracts with software developer to create beta version (Cotton Inc. will fund)
- April/June 2019 – Existing and New Recruited Collaborators contribute and evaluate beta version
- July/Aug 2019 – ICAC contractor updates software
- Sept/Oct 2019 – Collaborators evaluate version 1.0
- Dec 2019 – Soil Health Tool version 1.1 demonstrated at ICAC 2019 Plenary, SEEP creates plan to maintain Soil Health Tool and publish algorithms, references and early use statistics and examples as a SEEP publication in 2020
- Starting in Jan 2020 – Collaborators can utilize ICAC Soil Health Tool software to create their own National Soil Health Tools

ICAC Soil Health Cotton Producer Tool

The International Cotton Advisory Committee (ICAC) Soil Health Tool is designed to help cotton producers around the world improve their productivity and profitability by enhancing their most valuable resource – their soil's health. Soil health is the ability to sustain profitable crop production on a piece of land for generations to come.

To use this tool, start with the problems you observe in the field and follow the diagnostic key to suspected problems. Each problem will include confirmation methods, references for different regions and a wide range of practices to minimize specific problems for growers with diverse resources. Some soil health problems interact, which requires growers to carefully consider the practices that are most appropriate for their fields.

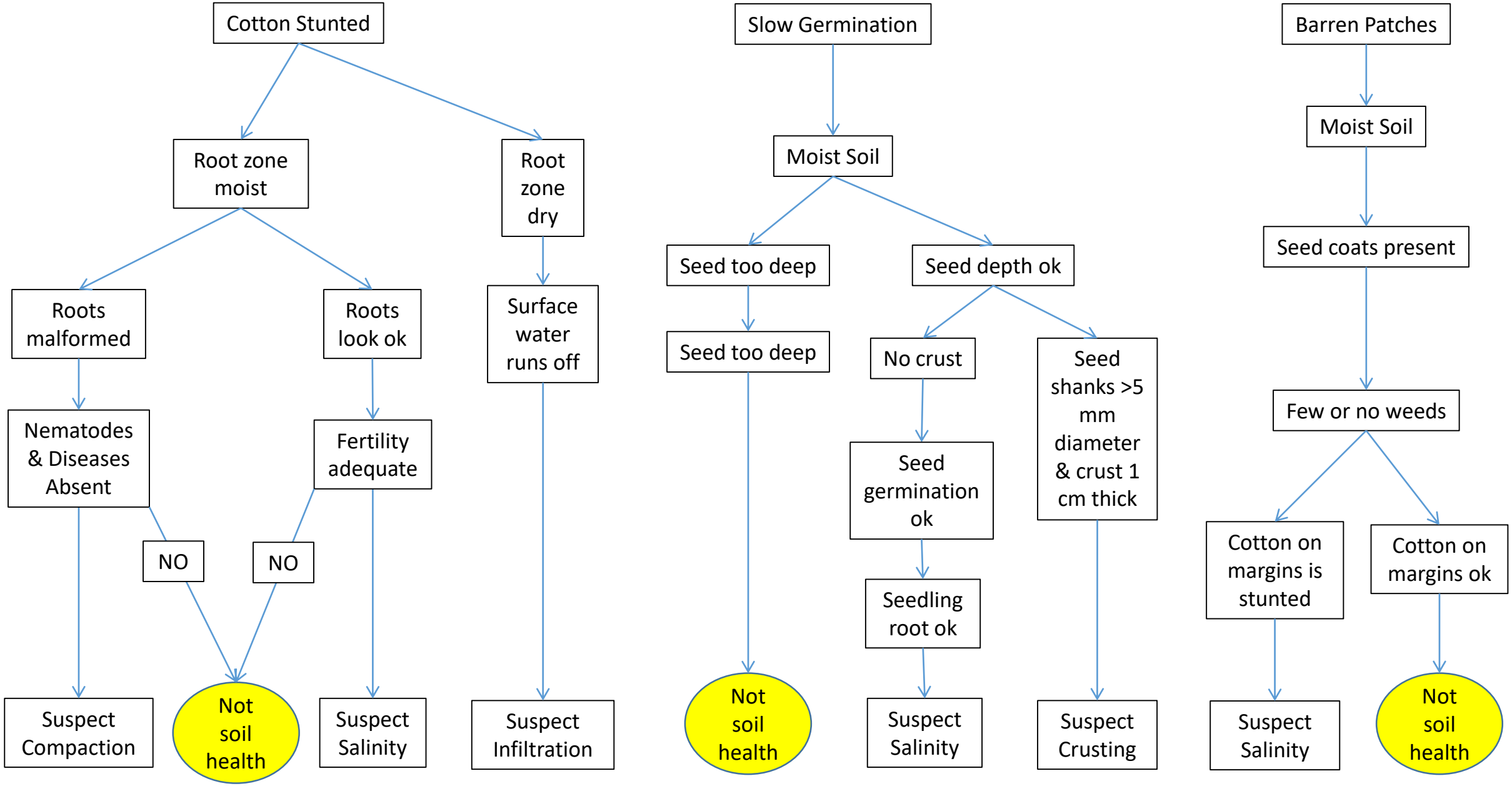
As you use this tool, please leave comments, pictures and data for the international scientists who support this tool so they can make continual improvements. This tool is provided free of charge; we only ask for your country and province to better understand soil health problems around the world.

To start the tool at the diagnosis key – click here
To start at any other level in the tool – click here
To learn more about the international scientists responsible for this tool – click here

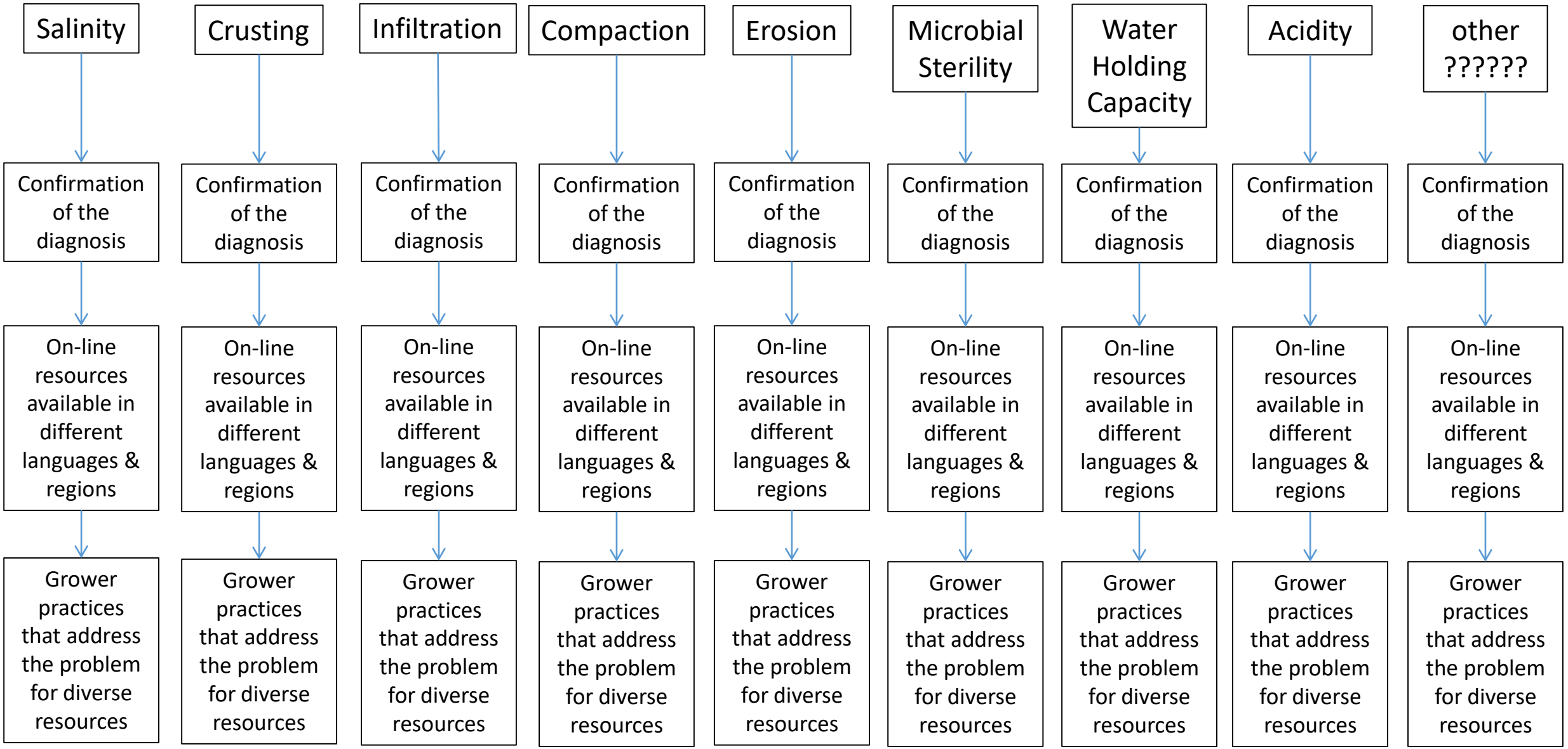
Sample Background Information Needed

Country *drop down menu*
Province/State *drop down menu*
Average Annual Rainfall *drop down menu*
Average In-Season Rainfall *drop down menu*
Elevation *smart phone web tools*
Latitude : Longitude *smart phone web tools*
Surface Soil Type *drop down menu*
Crops Grown in the Area *drop down menu*
Irrigation *drop down menu*

Sample Diagnostic Key



Specific Problems Suggested by the Diagnostic Key



Suspect Compaction - Confirmation Methods: increasing resources required→→→→

Soil must be moist

Dig a trench across the row to a depth of 60 cm. Press a Philips screw driver (or similar tool) horizontally every 5 cm into the soil starting at the bottom and observe force required

Across a transect of 4 or more rows at 10 intervals push a recording penetrometer into the soil to determine traffic pattern and compaction depth

Web links to access and use soil penetrometers

Cotton plants in the field

Dig a hole across the row and carefully remove the tap root and laterals, look for signs of compaction

Photos of compacted roots

Dig a smooth trench across the row next to a cotton plant, place a 10 cm wire grids against the soil face and spray starting at top with water.

References and diagram to make and use soil grid

Suspect Salinity - Confirmation Methods: increasing resources required→→→→

Saline soil → Presence of salts on ridges of soil → Sorghum better than corn in bioassay of 1 liter soil volumes from surface and at 10 cm increments by depths. Moisten without leaching and plant corn & sorghum → Collect 20 samples of surface soil 0-10, 10-30 and 30 -60 com. Blend each depth and send 100 ml to lab for confirmation

High water table → Presence of standing water in a hole either immediately or 2 days after digging → Install soil moisture sensors at 15 cm depths and track seasonal water presence

Web links to access and use soil moisture sensors

Sodic Soil → Sample surface 0-10 cm, divide into containers, poor rainwater on one and rainwater with 3 g of common salt per liter into the other. If salt water has much better infiltration than just rainwater suspect sodic soil → Collect 20 samples of surface soil 0-10, 10-30 and 30 -60 com. Blend each depth and send 100 ml to lab for confirmation

Salinity Resources from Select Countries

Argentina

Australia

Brazil

China

India

Spain

U.S.

http://extension.colostate.edu/topic-areas/agriculture/managing-saline-soils-0-503/
http://extension.uga.edu/publications/detail.html?number=C1019&title=Soil%20Salinity%20Testing,%20Data%20Interpretation%20and%20Recommendations
http://extension.uga.edu/publications/detail.html?number=C1019&title=Soil%20Salinity%20Testing,%20Data%20Interpretation%20and%20Recommendations
http://waterquality.montana.edu/energy/cbm/background/files-images/waskom.pdf
http://waterquality.montana.edu/energy/cbm/background/files-images/waskom.pdf

Grower Practices to Reduce Salinity

Resources available	Utilization	Suitability for the Specific Conditions (irrigation, soil type, crops, climate, topography
Clean irrigation water & sprinklers	Leaching salts with sprinklers during low ET periods makes maximum use of limited water supply, especially if unsaturated flow is maintained	
Clean irrigation water & flood irrigation	Ponding water in large basins will leach salts, but accumulate them in the borders	Maximum slope suitability
Rice growing capacity	Although rice is salt sensitive it can grow on saline or saline-sodic soils if irrigated with low salt water.	Maximum slope suitability Minimum water quality required
Plastic Sheeting	Soil solarization with a clear plastic thin tarp is an effective way to leach salts from small land holdings if left on the surface of moist soil for 4 or more warm months	Overcast weather reduces the efficacy of soil solarization
Gypsum or Sulfur amendments	Sodic soils require calcium such as in gypsum. Soils with lime and pH > 8 can also receive low rates of elemental sulfur	Sandy soils should not receive sulfur unless a reliable soil test indicates a minimal amount.

Grower Practices to Reduce High Water Tables

Resources available	Utilization	Suitability for the Specific Conditions (irrigation, soil type, crops, climate, topography, etc.)
Drainage ditches	Where a shallow water table exists (within 1 meter or surface) drainage ditches can pull water laterally from the field and allow leaching of salts	Soil Texture limitations Drainage water limitations Opportunities for vegetated ditches
Safflower growing capacity	Safflower's deep tap root has the ability to draw down high water tables, allowing salts to be leached in subsequent growing seasons.	Insect pest limitation
Tile drains	Where a shallow water table exists (within 1 meter or surface) tile drains effectively lower the water table and allow leaching of salts	Drainage water limitations

Grower Practices to Reduce Compaction

Resources available	Utilization	Suitability for the Specific Conditions (irrigation, soil type, crops, climate, topography, etc.)
Tillage Radish	Winter cover of tillage radish can loosen top 30 cm of soil if planted early enough to permit sufficient growth (5 months)	Difficult to achieve a stand unless irrigated or high off-season rainfall
Deep Rooted Crops		
Deep Tillage		
No-till		
Strip-tillage		

Summary of suggested practices for the grower to consider along with links to references and worksheets to assist adoption

Suggested Practices
a) ????????????
b) ????????????
c) ????????????

Practices with Restrictions
a) ????????????
b) ????????????
c) ????????????

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Attachment 3. SEEP Meeting Bremen – Progress of stocktaking report

Jens Soth
Senior Advisor Sustainable Agriculture

Bremen
March 23, 2018

WAPRO project visit February 2018

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Coop CEO Reto Conrad showing farmers in India the final product of their efforts


Welcome Delegates
Water Productivity Project
Farmers Interaction
Date: 27 Feb 2018
Village: Dhamar Devi (Gintigaon)
Block : Kotabag Distt: Nainital
Intercooperation Social Development India
Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Agency for Development and Cooperation SDC
inter cooperation
Enriching people and planet
Nature Bio-Foods Ltd
A wholly Owned Subsidiary of LT Foods Ltd

Further milestones for the pilot stocktaking report

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1. Embed general comments from discussions in Rome. October, 19, 2017, particularly with regard to title, introduction and change of quantitative focus

2. Create Annex with original survey questions

3. Collect and process information of pilots in West-Africa by CIRAD

4. Collect and process information of pilots in West-Africa by FAO

5. Embed processed information in stocktaking tables and update corresponding report conclusions

6. Collect and integrate detailed comments and amendments of SEEP team

Key questions for the further procedure

1. How to embed discussed , but not tested indicators
2. How to handle variation of indicator sets of pilots Suggestions by stock-taking report in basic set and optional set reasonable ?
3. How to address not-utilized, but relevant indicators ?
4. Preparation and procedures for further pilots based on study results

Snapshots from the CIRAD results

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Domain	Sub-domain	Indicator_EN	Raw data_EN	Country	Easyness	Quality	Priority
1 Environmental sustainability	Management of pests and pesticides	% of treatments done in the frame of a resistance management programme	% of insecticide applications implemented in the framework of a pest resistance management program	Togo	3	3	2
				CAMEROUN	3	3	3
				Sénégal	3	3	3
		% of village associations having a pesticides warehouse	% of village associations having a dedicated warehouse to store pesticides	CAMEROUN	3	3	3
				Sénégal	1	1	3
				Togo	3	3	3
		% of village associations having a pesticides warehouse complying with standards	% of village associations having a dedicated warehouse to store pesticides in compliance with safety rules	Sénégal	2	2	3
				Togo	2	2	2
				CAMEROUN	3	3	3
		Existence of a programme of collection for pesticide containers and contaminated materials including discarded pesticide application equipment	Existence of a program for the proper disposal methods for pesticide containers and contaminated materials including discarded pesticide application equipment	Sénégal	1	1	3
				Togo	3	3	3
				CAMEROUN	3	3	3
		Existence of a time-bound IPM plan	Existence of a time-bound IPM plan	Togo	3	3	2
				Sénégal	3	3	2
				CAMEROUN	3	3	3
		Number of farmers that have received training in pesticides use including empty containers	% of workers applying pesticides that have received training in handling and use	Togo	3	3	3

AND ECONOMIC PERFORMANCE OF COTTON PRODUCTION

Code 1	Code	Type /. basic indicators	Pilar	70 SEEP indicators adapted to West and Central Africa	Pilier	70 indicateurs SEEP adaptés à l'Afrique de l'Ouest et du Centre	Données brutes	échelle	par qui
50200	5.02	modified		On-farm fossil fuel use per ton of cotton lint and/or ha (GJ) by type of cultivation: manual, mechanized/animal-drawn, motorized		Consommation d'énergie fossile de l'exploitation agricole par MT de fibre de coton et/ou ha (GJ) par type de culture : manuelle, mécanisée/attelée, motorisée	Consommation sur exploitation Transport intrants Transport CG Egrenage CG (fibre carreau usine)		Sociétés cotonnières
60000	6		Economic sustainability	**Economic Viability, Poverty Reduction and Food Security**	Durabilité économique	**Viabilité économique, réduction de la pauvreté et sécurité**			
	6.01	n/a		n/a		sans objet			
60200	6.02	modified		Purchase price of seed-cotton converted in ton of lint		Prix d'achat CG ramené à la tonne de fibre	Prix d'achat CG 1er choix (FCFA/kg) Complément payé *a posteriori* (FCFA/kg)	Pays ou région	Société cotonnière
60301	6.03.01	modified		Profit margin after inputs refund per ha and par kg of lint		MARI (marge après remboursement des intrants) par hectare et par kg de fibre	Surface totale (ha) Production totale CG (t) Rendement à l'égrenage (%) Prix d'achat CG 1er choix (FCFA/kg) hors autre complément Total crédits de campagne par type d'intrant (FCFA)	Pays ou région	- Associations de producteurs - Sociétés cotonnières
60303	6.03.02	new		Cost per hectare by type of input (seeds, fertilizers, treatments...)		Dépenses par hectare par type d'intrant (semences, engrais, traitements...)	Total crédits de campagne par type d'intrant (FCFA)	Pays ou région	- Associations de producteurs - Sociétés cotonnières
	6.04	n/a		n/a		sans objet			
	6.05	n/a		n/a		sans objet			
	6.06	n/a		n/a		sans objet			
60700	6.07	modified		% of farmers with access to input credit		% des producteurs ayant accès au crédit intrants	Nb total de producteurs coton Nb total de producteurs coton ayant accès au crédit intrants	Pays ou région	Société cotonnière
	6.08	n/a		n/a		sans objet			
60900	6.09	modified		% of cotton farms with: complete and operational equipment for animal-drawn cultivation, cart, tractor, moto, cell phone		% d'exploitations cotonnières possédant : équipement complet fonctionnel de culture attelée, charette, tracteur, moto, téléphone cellulaire	Nb d'exploitations cotonnières Nb d'exploitations cotonnières possédant : équipement complet fonctionnel de culture attelée, charette, tracteur, moto, téléphone cellulaire	Pays ou région	UNPCB Sociétés cotonnières

70 WC Africa SEEP indicators | 70 indicateurs SEEP AOC | Interfaces

SEEP Brainstorming results Rome, 19, 2017

- Pilots in BCI
- Framework -> review stocktaking report, actions as agreed, e.g. guidance material, case studies
- Work on a guidance doc for the framework in conjunction with pilot
- Create guidance manual & corresponding App for indicator framework
- Facilitating data collection tools
- Members look for other opportunities for pilots (SEEP Meeting -> 3 months)
- Have the indicator framework tested in India and Pakistan
- Document application of the framework in pilots
- Strengthen and harmonize (national, institutionalization), impact monitoring worldwide, integrate in Identity Cotton Program)
- How SEEP framework can be integrated with other initiatives (BCI/Organic/Fair Trade/ etc.)
- Pilots in BCI
- Prioritize Indicators for their possible impact on sustainability & use heighted scoring to interpret
- Dissemination of the results of the pilot test already conducted. How other countries can be included ? Guidance on how to collect and analyze the data.
- Support broader roll-out for implementation of indicator framework
- Closer associate actors (African) cotton sector to the future evolution of framework
- Promoting the use of the indicator framework at various levels.
- Continue implementation/dissemination of indicator framework to new sites/countries,adapted to each case.

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Realization of further pilots

Promotion of the utilization of the framework

Preparation of underlying guidance manuals and tool