

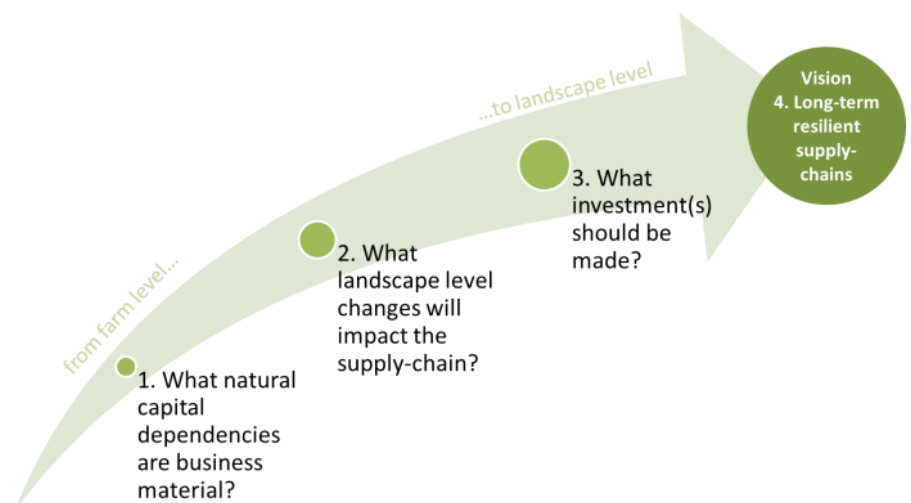
# NATURAL CAPITAL LEADERS PLATFORM

## Action Research Collaboratories: *Securing future business success by moving from short-term impacts to investing in long-term supply chain resilience*

Companies that depend on natural capital do not have sufficient information on which to assess their material exposure to risk. A deeper understanding of their critical dependencies, a method to prioritise them and a range of complementary, evidence based interventions are all required by these companies to secure supply of raw materials. With Board members and investors showing interest in whether their companies can demonstrate that they are measuring and managing this new generation of risks, a more diagnostic approach to natural capital dependencies is required.

Action Research Collaboratories (ARCs) - focussing on a range of commodities and landscapes - will validate a new approach to secure supply. The ARCs will help business to ensure the **long-term** viability of supply chains by identifying the critical **dependencies** upon natural capital and determining the appropriate mix of **investments** to address these.

CISL will be working with an invite only group of companies to challenge the paradigm that reducing a company's environmental **impacts** alone will address the depletion of natural capital. There needs to be a conscious shift from short-term incremental approaches to more impactful long-term strategic thinking that address the key challenges creating the most pressing risks to a company's supply chains.



### Aim of the ARCs

To understand what mix of investments and approaches, complementary to current initiatives will generate long-term value for business and secure supply chains such that they are resilient and sustainable. The aim will be achieved by:

- Highlighting and communicating the next generation of business risks and opportunities associated with natural, social and financial capital from key dependencies
- Determining the best business relevant landscape approaches to minimise these risks and secure sustainable supply chains for long-term business resilience

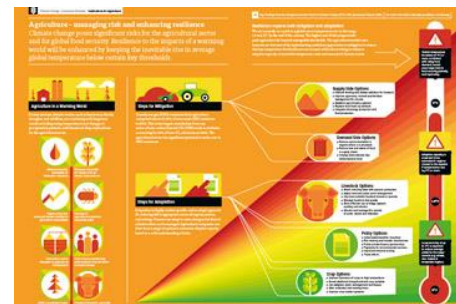
## ARC deliverables for each ARC\*

### *Communication tool on the next generation of business risk/opportunities*

**Problem:** Natural capital impacts and dependencies are too complicated to understand.

**Solution:** An impact and dependency infographic (option to be interactive) that highlights the next generation of business risks and opportunities associated with natural, social and financial capital.

A simple, business ready media will help articulate dependencies and risks related to natural capital and impacts upon financial and social capital. The tool will identify, in a single place, what the natural capital dependencies risks are for business. It will build understanding and consensus in a company around the materiality of natural capital and articulate natural capital dependencies as a business priority. It will also help articulate to investors and other stakeholders where a business is making progress to reduce risk.



### *'Landscape Blueprint' that secures supply chains and business value*

**Problem:** Landscape approaches are not integrated and some are not designed to address natural capital risks; how can business determine the appropriate investments to secure supply chains?

**Solution:** Map the best mix, for business, of new and complementary approaches to address supply chain dependencies upon natural capital to evidence the optimal business investments that will return long-term value at a landscape scale.

An important first stage is the assessment and comprehensive mapping of current complementary initiatives which on their own do not fully address natural capital dependencies. This will be built on by identifying the balance of new and existing approaches that can generate value for business; this includes the returns and rewards from securing financial, social and natural capital in the long-term. Such analysis can also be used to maximise return on future investments and reduce long-term risk.



## The ARCs are a vital component of the Platform's ground breaking land management analytic tool kit

The Platform's major objective is, in three years' time, to provide companies with a land management analytical tool kit containing new metrics, next generation land management approaches, valuation techniques and horizon scanning that in combination will build more resilient supplies of natural commodities.



The tool kit **Natural Capital 3D** is backed up by Cambridge rigour and science, providing the missing piece in current supply chain sustainability approaches by incorporating soil, water and biodiversity measurement and management.

An important component of the tool kit is the practical examples to validate these approaches - the ARCs.

\*To be delivered over a 12 month period

## East/Southern Africa Cotton ARC: Sewing natural capital into cotton production

In 2012, almost 10% of the world's cotton production was grown in Sub-Saharan Africa, the world's fifth largest cotton exporter following the USA, India, Australia and Brazil. The key difference when compared to other countries where cotton is grown in monocultures on large plantations that are often irrigated and where cotton is mainly harvested with machines, Sub-Saharan African cotton is mostly grown under rain-fed conditions and is hand-picked. This has significant implications for yield.

Cotton is both renewable and biodegradable while most fibres are petroleum-based, which means they come from non-renewable resources. Nevertheless, the cotton industry is one of the most polluting industries on the planet. For example, it impacts upon water through the use of fertiliser and pesticides and affects the salinization of soil which limits the ability of crops to take up water. Indeed, it is estimated that 4% of the world's total arable land is abandoned owing to former intensive cotton cultivation with soil salinization being the main reason. It is for this reason that cotton's dependencies upon natural capital need to be better understood, so that business can make the appropriate investments to ensure their supply chains will be resilient to future pressures and impacts. It also provides opportunities to address the poor yields of cotton currently achieved in East and Southern Africa.

To date, cotton initiatives in East/Southern Africa commonly focus upon achieving a sustainable increase in farmers' incomes to fight the severe poverty in the region. The use of farmer extension services, certification of organic or Fairtrade cotton attempt to limit the impact cultivating cotton has on people and the environment. However, these do not consider the full spectrum of natural capital dependencies nor the interactions between such elements as soil, water and biodiversity. By enhancing and managing the elements of natural capital that underpin cotton production, which are often not considered - soil, water and biodiversity - the land will remain productive and the crops upon which farmers depend for their livelihoods can still be harvested, possibly with higher yields.

### What is missing?

The major constraints that face cotton farmers in production include soil fertility exhaustion, insects' infestation and weeds. The current solutions to these problems are fertilizer application, pesticide use and weeding, which, as well as requiring substantial investment, have implications upon **vital natural capital components such as soil, water and biodiversity** needed for a profitable yield. These interventions tend to take place a farm level and companies tend to focus upon reducing the impacts that these have.



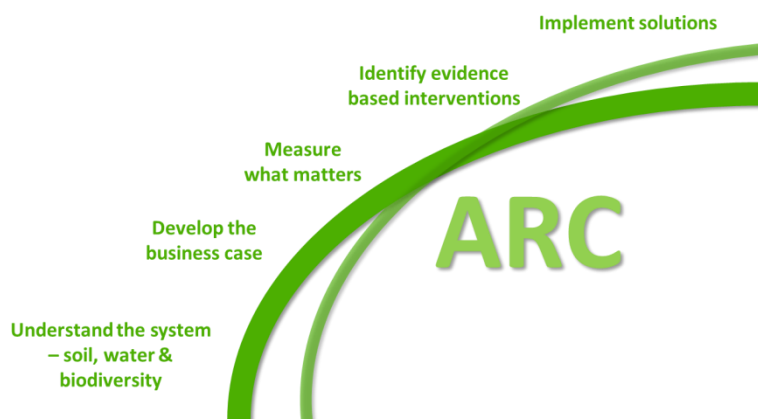
However, in taking this approach business can overlook opportunities to directly address the underlying natural capital upon which this profitable yield depends. Many of these opportunities manifest themselves at the landscape level and the choice of investment can therefore have implications for the long-term resilience of the cotton supply chain.

There are few organisations taking this type of dependency approach to address the increasing pressures on soil, water and biodiversity from the wider landscape, arising from, for example, land-use change or the need to produce alternative staple crops and generate food security.

## How the ARC will help companies in the cotton value chain

By focusing on three major natural capital components - the health of soil, water and biodiversity - CISL will work with the six, invite only, companies to help them understand, measure and manage their interconnectivity in order to reduce risk and create benefits at the production level of the cotton supply chain. The ARC will examine existing impact/dependencies, identify gaps and propose new approaches to measure and manage the natural capital components that matter to business.

The work of the ARC is designed to complement and add value to the many other initiatives supported by business in the cotton growing areas of East/Southern Africa. It will identify significant impacts (both positive and negative) that current initiatives may have on the long term productivity of natural capital, develop realistic scenarios and propose individual/collective business interventions that focus upon dependencies in order to enhance both natural capital and societal value in the cotton growing regions of East/Southern Africa.



## ARC companies and other partnerships

**Asda** has expressed interest in working with CISL to shape the Cotton ARC and have asked CISL to invite four other companies to join the ARC process.

CISL's role is to provide a 'safe space' for business to collaborate and offer and develop the latest research to address the specific natural capital challenges at landscape level that companies wish to focus on. The duration of the ARC will be 2-3 years, with a maximum of 4 meetings each year to review the ARC's progress, though the exact length will be determined by the companies involved. Annual milestones and deliverable outputs will be agreed at the beginning of the process.

CISL will select companies that demonstrate a willingness to look beyond short-term measures and take a more holistic view of their long-term dependencies on natural capital. These companies will be at different points in the value chain and offer different perspectives, but will share an enthusiasm for developing innovative solutions that manage these long-term risks.

The ARC will build important links with other relevant initiatives and organisations, including the Vital Signs, Better Cotton Initiative, Competitive African Cotton Initiative, Cotton made in Africa initiative, Gatsby, and Fairtrade.

In consultation with ARC companies CISL will harness the latest research resources, draw on expertise from with the different University of Cambridge departments and our wider academic and leadership networks. We will also utilise the data and experience acquired through the member company's own field research projects.

## For more information contact:

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