CABI Medium Term Strategy

2020 – 2022

KNOWLEDGE FOR LIFE

Contents

Appendices

1. Executive summary

Introduction

CABI's Medium-Term Strategy 2020–2022 sets our strategic goals for the period and the activities we will carry out within six thematic areas to achieve them, alongside our specific objectives. By implementing this strategy, CABI aims to bring about sustainable economic development, improved livelihoods and better nutrition through greater market access for climate-resilient agriculture in healthy ecosystems.

Successful implementation of the strategy is expected to contribute to a number of the UN Sustainable Development Goals (SDGs), including No Poverty (SDG 1), Zero Hunger (SDG 2), Quality Education (SDG 4), Gender Equality (SDG 5), Responsible Consumption and Production (SDG 12), Climate Action (SDG 13), Life on Land (SDG 15) and Partnerships for the Goals (SDG 17).

Progress against the previous Medium-Term Strategy 2017–2019

CABI looks ahead to this new Medium-Term Strategy from a position of strength. We have either met, or are on track to meet, over 90% of the 116 milestones from the 2017–2019 strategy and scientific output has been high, beating our target of 100 publications per year. To these achievements are added the facts that we have made good progress in winning significant new projects; conclusively demonstrated the positive impacts of Plantwise; gained recognition for our central role in the fight against fall armyworm (FAW); re-energized our publishing business; and commenced the Wallingford office redevelopment in the United Kingdom, which will significantly reduce our carbon footprint.

Context

Today, the negative effects of climate change on agriculture (including by the increased distribution of pests) and the challenge of increasing the participation of women and youth in the sector continue to be key issues. Our Member Countries have highlighted a number of priority areas they want us to focus on, such as increasing the sustainability of value chains and improving market access to them for smallholder farmers; applying climate-smart agriculture in practice; considering the social and environmental impact of projects for women and youth; applying integrated approaches to crop production, protection and processing; and investigating and tackling invasive species pathways as well as implementing proactive, early warning and rapid response, rather than reactive defence.

CABI's Medium-Term Strategy 2020–2022 has been developed to respond to the general context in our fields of activity as well as to our Member Countries' priorities, which now place much greater emphasis on the pressing need to address aspects of SDG 5 (Gender Equality) and SDG 13 (Climate Action). Therefore, we have specifically identified goals, objectives and activities with impact on gender, youth and climate change, while continuing to support the delivery of the original six SDGs from our previous Medium-Term strategy (SDGs 1, 2, 4, 12, 15 and 17), which remain highly relevant and important.

Strategic goals

To respond to this context and priorities, we have set the following strategic goals for this period.

GOAL 1 Improve market access for smallholders to sustainable value chains

- Strengthen small and medium agri-enterprises, including women and youth-based business organizations, through building capacity in business awareness and skills for better access to inputs (including seed and affordable credit) and output markets
- Build the capacity of public and private sector technical experts through public–private partnerships on sanitary and phytosanitary (SPS) measures to ensure compliance with market requirements
- Facilitate linkages among value chain actors and strengthen standards compliance
- Support climate adaptation and reduce the environmental impact of farmers growing cash crops (e.g. coffee, cocoa, cotton, coconut, spices) through the adoption of improved varieties and good agricultural practices (GAP)

GOAL 2 Improve capacity for the delivery of climate-resilient food and nutrition security

- Promote the global diversification of agriculture to improve the nutritional value and climate resilience of the crops grown, with particular emphasis on fruits, nuts, vegetables, pulses and indigenous crops
- Provide direct support to countries to enhance institutional capacities and facilitate the implementation of climate-responsive interventions
- Facilitate access to climate financing through increased linkages and interactions (e.g. among country governments, donors, and United Nations Framework Convention on Climate Change (UNFCCC) focal points)
- Ensure best practice information on the nutritional value of crops, climate adaptation and mitigation of emissions is findable, accessible and relevant

GOAL 3 Help women and young people gain new opportunities from access to targeted, context-specific agricultural information and technology

- Empower women and youth through deliberate gender-focused interventions, to be agricultural entrepreneurs both on the farm and in off-farm roles (e.g. seed multiplication, biocontrol agent rearing, advisory service providers, providers of pesticide application services, agro-input suppliers, or food aggregators, processors or sellers)
- Build partnerships to facilitate the provision of services to women, youth and marginalized groups in agricultural communities
- Identify and develop deliberate gender-focused interventions to build non-farm rural employment opportunities for women and youth, e.g. in sustainable tourism
- Promote the integration of existing knowledge, priorities, needs and constraints in relation to different age and gender groups in research plans, to maximize quality and impact
- Provide tailored information to address the technical needs of women, youth and marginalized groups through appropriate communication channels and digital tools

GOAL 4 Promote balanced utilization and conservation of biodiversity and ecosystems

- Improve the understanding and forecasting of climate change impacts on pests and crop/landscape management strategies (especially in developing countries) to inform the development of context-specific adaptation and mitigation strategies
- Support national and regional prioritization of risks and threats from invasive species
- Strengthen the capacity of national agricultural and environment organizations in prevention, early detection and rapid response, as well as in spreading best practices in the use of safer pest management strategies

Thematic areas and objectives

To achieve the four strategic goals above, we will carry out activities within six thematic areas with the aim of achieving specific objectives (listed as bullets under each paragraph below). Gender will be a key consideration across all of our thematic areas. Achieving our strategic goal of empowering and employing women and youth will require us to take a gendered approach across all our development work from the very outset of project planning. We will manage our projects with the aim of achieving gendered results wherever possible, ensuring measurement of outcomes and impact can take place on a gender-disaggregated basis, with careful analysis to understand the drivers of difference between groups.

Crop health

We will build on the lessons learnt thus far in implementing Plantwise and will incorporate new concepts in the project to make agricultural production and food supply systems safer and more sustainable through integrating smart, scalable processes and tools into plant health systems, with the aim of increasing the supply of and access to safer produce. In particular, we will leverage the power of technology to provide farmers with more granular predictive information on crop health and pest or disease threats. We will:

- evolve current core programmes to promote the sustainability and climate resilience of agricultural systems
- develop data-driven pest prioritization, monitoring and management systems using new technologies and processes (predict and prevent)
- promote the uptake of diverse crops and good agricultural practice (GAP) to increase the supply of safe and nutritious food
- reduce and remove greenhouse gas emissions where possible

Value chains and trade

We will increase the sustainability of value chains and promote trade through applying our expertise in the identification of challenges in the value chain through stakeholder participatory analysis, strengthening producer organizations and building the capacities of value chain actors (producers, intermediaries, input suppliers, regulators, etc). This work will be facilitated by our Member Country linkages, as well as our established partnerships with national governments, regional economic blocs and international bodies. We will:

- sustainably increase agricultural productivity and incomes
- develop vibrant value chains and trade linkages to support economic development in target countries
- enable equitable and inclusive agribusiness growth through activities specifically focused on women and youth

Invasive species management

We will continue our work in this core area of CABI's expertise (including the integrated management of invasive species) in both developed and developing countries. We will continue to implement Action on Invasives (www.cabi.org/action-on-invasives) to protect and improve the livelihoods of over 50m poor rural households impacted by invasive species. We will:

- strengthen policies, plans and capabilities to enable more effective country responses to the threat of invasive species
- increase awareness of the risks and costs of invasive species, leading to greater investment in their control
- promote more effective prevention and management of invasive species incursions

Development, Communication and Extension

We will carry out our cross-cutting development communication activities to transform agriculture and related sectors. We will leverage our complementary activities (publishing, marketing, extension service provision, science journalism through SciDev.Net and digital development) to deliver research communication activities directed at governments, institutions, extensionists, farmers and consumers using a wide range and blend of channels. We will:

- expand the evidence base to support projects which build on prior learning and experience
- design innovative blended communication campaigns to optimize reach and impact with target audiences
- improve access to knowledge, information and evidence on nutrition plus climate change adaptation and mitigation
- use participatory content development, working with local, national and regional partners who have the skills and knowledge to inform development of audience-focused materials

Digital development

We will apply international best practice, working in close partnership with collaborators and end users to deliver relevant, locally-owned solutions. We will draw on Member Country relationships and project partnerships to guide digital interventions, ensuring that solutions are embedded within national systems. We will:

- develop decision support tools to help users translate data and information into positive action and impact on crop health
- co-develop solutions with end users that are context-appropriate and meet their needs
- maximize the reach and impact of digital solutions by designing for inclusivity, interoperability, sustainability and scale

Science publishing and journalism

We will position CABI at the heart of open, evidence-based agriculture, providing solutions around the workflow of scientists. We will aim to be a publisher of choice and a valued partner for research funders and donors seeking to maximize the impact of their outputs. We will also develop our activities in the area of e-learning. Finally, we will take advantage of the merger of CABI with SciDev.Net to support the wider development agenda through continued production of accurate and innovative science-based news stories and media content.

We will:

- provide products, analytics and tools to support open science, increase research productivity and promote evidence-based agriculture
- build an e-learning curriculum to help practitioners and students acquire vital knowledge and skills
- develop practical tools and services based on reliable research and data

Monitoring, evaluation and learning

The critical milestones of the Medium-Term Strategy 2020–2022 will be monitored and reported on a quarterly basis using information obtained from across CABI themes, centres and projects. This will allow us to assess thematic area outcomes and impact against the strategy and the SDGs, generating understanding of change and informing learning within CABI. During the period, we also aim to invest in at least one significant impact evaluation per year and one to two smaller mixed-method impact case studies, with the following objectives: measuring and optimizing the results of our interventions; ensuring relevance and efficiency in their implementation; learning about what works, what doesn't and why; and contributing to broader development debates on policy and strategy.

Our people

Key elements of our human resources (HR) strategy during the period include making sure the salary, incentives and benefits packages offered by CABI are competitive; continuing the development of talent among our existing staff; recruiting new staff where specific skills, experience and capabilities are required (e.g. gender and climate change); encouraging staff to achieve a good work/life balance; and maintaining (and regularly reviewing) succession and talent management plans covering all senior-level and operationally critical roles.

Additional areas of activity during the period will include stimulating a dialogue about what "One CABI" means, what gets in the way of delivering it and how we can improve; implementing the CABI Code of Management Conduct; and introducing 360-degree feedback for management.

Financial plan

As a self-sustaining, not-for-profit organization, CABI must finance its activities through the sale of its products and services. During the period of the Medium-Term Strategy 2020–2022, we will build upon existing relationships with key donors and core academic customers while broadening our funding base with foundations and the private sector. Our objective is to maintain a modest operating surplus at the same time as investing in new product development, technology and staff training, while supporting the deficit recovery payments related to historic pension commitments.

2. Mission, vision and values

CABI's mission is to *"improve people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment."*

The principal beneficiaries of CABI's mission-driven programmes are farmers (men, women and youth) who gain the knowledge to improve yields of safe and nutritious food – as well as improved livelihoods from better market access – through sustainable, climate-resilient agriculture in healthy ecosystems.

Our vision is that:

"CABI will be the number one 'go-to place' for insightful and practical science-based knowledge about agriculture and the environment."

CABI's core values in the delivery of our mission and vision are as follows.

- **We seek to deliver transformational change through innovative approaches** – The fundamental challenges of feeding a growing world population in a changing climate mean that incremental improvements to business-as-usual are no longer adequate
- **We believe in long term solutions** – We work with partners in-country to develop enduring solutions and build skills. We build lasting, value-creating relationships with our customers and stakeholders
- **We are objective and impartial** – We will not allow what we say to be influenced by political or commercial considerations. The information we provide is high-quality, evidence-based, relevant and reliable
- **We care about people** – We use our skills to help people around the world, from smallholder farmers in developing countries to researchers and academics. We focus on making a difference to lives through the uptake and application of knowledge
- **We are committed to sharing knowledge** – Knowledge is the application of information augmented by experience. Knowledge enables people to support themselves and improve their lives when it is communicated effectively
- **We view partnerships as key to success** – Through local, national and international partnerships – including governments, non-governmental organizations and the private sector – we help people adopt practical solutions, and we disseminate knowledge with greater reach, impact and scale
- **We choose our partners carefully** – We aim to ensure that they can deliver to high standards of governance, safeguarding and integrity

3. CABI's strengths

CABI plays **a unique bridging role in marrying** the international development objectives of both high-income and emerging economies, as well as in facilitating technology translation from research into practical application for farmers.

CABI's strengths lie in its **objective, science-based approach, with a unique combination of high-quality research alongside expertise in translating research into practice** through development cooperation projects worldwide, implementing sustainable agricultural approaches and raising the incomes of poor rural farmers. This is reflected in the growing importance of the social and economic sciences in CABI's strategy and substantiated through rigorous monitoring and evaluation.

CABI is recognized as a world leader with a **strong scientific reputation** in the identification, diagnosis, prevention and control of plant pests and diseases. Working with its Member Countries, CABI's discovery, evaluation and use of biological control agents contributes to the successful management of many pests and weeds. It also acts as a platform for the development and implementation of integrated pest management (IPM), contributing to sustainable agricultural production around the world.

In addition to this specific depth of scientific expertise, CABI has a **broad core competence in the communication of science**, particularly in making the practical application of research findings available to farmers through national extension systems. For example, our Plantwise programme has made major contributions to strengthening national plant health and extension systems in over 30 countries.

Adding value

CABI shares scientific knowledge so smallholders can grow more and lose less

30m

farmers reached by the CABI-led Plantwise programme (in total)

This knowledge influences farmers' behaviour and encourages change

229k

farmers in Tanzania applied at least 1 improved agricultural technology

Crop yields and crop values then increase, while losses are reduced

138%

cocoa yield increase in Vanuatu from a sustainable cocoa project

CABI maintains a **strong international network of relationships** through its system of governance involving nearly 50 Member Countries. This keeps us in touch with governmental priorities, while staff and partners implementing projects around the world have daily experience of the concerns and challenges of farmers working on the ground.

Innovation has been an essential aspect of CABI's history. We have played important roles in developing the science of different biological control approaches, particularly weed biological control, the use of fungi as biopesticides (e.g. for locust control) and new pest risk assessment methods for managing the spread of non-native species.

CABI's **business model is self-sustaining**, with a successful commercial publishing business providing skills, content and financial support for the mission-driven activities.

CABI maintains a commercial approach to its operations which **delivers value for money** to its Member Countries, donors and customers through the provision of our products with **economy, efficiency, effectiveness and equity**.

The combination of these strengths enables us to deliver impact at scale that is truly transformative for the livelihoods of the people we work with and the economies of the countries we partner.
(See figure below)

Providing value for money to donors and investors

1:3 the cost-benefit ratio of Plantwise in Kenya

Use of pesticides that damage the environment and human health are also reduced

81%

of 90 farmers interviewed in Cambodia, Vietnam, Myanmar and Thailand, said they experienced fewer pesticide related health problems after visiting clinics

Employment and incomes – people's livelihoods – then start to improve

15%+

income for papaya farmers in Pakistan after agricultural training

Countries' economies grow as internal agricultural systems become more effective

$15m

worth of vegetable exports start again following a project in Ghana

4. Progress in relation to the 2017–2019 Medium Term Strategy

Most milestones on track to be achieved: CABI has either met, or is on track to meet, over 90% of the 116 milestones under the Medium-Term Strategy 2017–2019. For 9.5% we are unlikely to be successful, mainly due to the challenges of securing donor funding for certain areas of work or securing second-phase funding to continue existing projects.

High level of scientific output: our target for the period was 100 peer-reviewed publications each year, and we have beaten this with a total of 162 publications in 2018 alone, of which 51 were in journals with an impact factor greater than two and 38 were open access.

Strong progress on Plantwise scale-up and sustainability: we have reached around 31 million farmers cumulatively, established nearly 4,000 plant clinics (of which nearly 3,000 are regularly active) and trained over 10,000 plant doctors. Specific highlights in the period include:

- significant progress towards sustainability, with the adoption of the Plantwise approach in national agricultural strategies (e.g. in Myanmar), the absorption of running costs within national budgets and **partner financial allocations of over £1.1m**
- a substantive body of evidence for the **positive impacts** of Plantwise on crop yields and farmer incomes in Africa and Asia
- **innovation through the use of information and communications technology (ICT)** and social media
- successful approaches **targeting women, youth and minorities**, with increased participation of these groups at plant clinics in eight countries

Strengthened monitoring, evaluation and learning capacity, and key learning obtained: we are making progress in establishing a strong cadre of monitoring, evaluation and learning specialists within CABI. At the same time, we have advanced our learning through some significant impact studies finalized during this period. Key among these was a randomized controlled trial of the impact of Plantwise in Kenya, carried out on an independent basis by the American Institute of Research with funding from the UK Department for International Development (DFID). This produced very positive findings at both the individual farm and the national plant health system levels, including insights into the ways in which women farmers can be reached more effectively.

Funding obtained for Action on Invasives and successful response to fall armyworm (FAW): during the period, our Action on Invasives project received funding from DFID and the Directorate General for International Cooperation (DGIS) at the Dutch Ministry of Foreign Affairs. Through the project, we positioned CABI as a valued and in-demand partner in the development of regional policy frameworks to manage invasive threats. In response to the rapid geographic spread of FAW, Action on Invasives provided FAW policy support to 17 countries including Ghana, India, Zambia and Kenya. CABI was seen by donors, partners, governments and national institutions as a source of objective and authoritative advice on FAW and we currently participate in a number of the FAW technical working groups convened by the Food and Agriculture Organization (FAO), as well as leading the FAO communication and awareness group. Other invasives we have worked on include *Parthenium* and *Tuta Absoluta* in Pakistan and Cassava Brown Streak Disease in Zambia.

Significant new project wins in value chains and trade: these wins will support our strategic focus in this area as we move into the new Medium-Term Strategy period. Highlights include:

- a £1.7m project to strengthen vegetable value chains in Pakistan, funded by the Australian Centre for International Agricultural Research (ACIAR), with strong links to a £4.8m horticulture value chain technical assistance project that CABI is also implementing, funded by the Government of Punjab
- continued funding from the Better Cotton Initiative for the implementation of safer pest management processes and the training of women in cotton production
- funding from Innovate UK to support IPM training for coffee farmers in Colombia
- funding from the Standards and Trade Development Facility (STDF) to support improved pest management practices in the horticulture industry in Uganda
- CABI's engagement to lead the research, communications, knowledge management, monitoring and evaluation, and learning within a major DFID-funded programme to support investment in commercial agriculture for the benefit of smallholder farmers, covering Uganda, Nepal and Malawi

Acquisition and integration of SciDev.Net: SciDev.Net is the world's leading source of reliable and authoritative news, views and analysis about science and technology for global development and was acquired by CABI in 2017. This was an opportunistic move not foreseen in the Medium-Term Strategy 2017–2019 but it has been highly successful. SciDev.Net is now operating as a fully integrated activity within CABI while still maintaining its own distinct identity and editorial independence. During the period, SciDev.Net carried out successful science journalism activities funded by the Bosch Foundation and the Rockefeller Foundation. We secured core funding of £2.8m from Swedish International Development Cooperation Agency for the period to 2022.

New office development on track: final approvals for the Wallingford site development were received in October 2018 and work on the housing and office development is well underway. The new office is on-track and on-budget for completion in mid-2020 with no net cash cost to CABI since it is completely funded by the proceeds from the housing development. Progress was also made on assessing the options for the future of our Egham site.

Shortfall in financial performance: we continue to see high levels of competition and budgetary pressures across all parts of our business. Publishing has grown at only 1% (although this is the industry average level) as academic research budgets remain tightly constrained. However, under new leadership, this business has now been re-energized, with a very promising pipeline of new product launches and concepts for development.

International Development has seen the overall emphasis of donor funding shift away from agriculture, with continued downward pressure on permissible overheads. This has required rigorous cost control and an ongoing focus on impact, effectiveness and efficiency.

Overall, our financial performance has been below the levels anticipated in the Medium-Term Strategy 2017–2019, with a shortfall of approximately £2.5m in net revenue and £600,000 in operating surplus, primarily as a result of donor funding for International Development being less than anticipated.

5. Context

5.1 The world in which we operate

Trade and market access

- The global agriculture market is valued at more than US $3 trillion and is growing, but current challenges in agricultural value chains need to be overcome if we want to grow rural economies and increase rural household incomes in many developing countries
- The central challenge remains implementing sustainable increases in agricultural production to feed the world's growing population
- There is also an increasing focus on food safety, diversity and nutritional quality
- The role of digital advisory services to support smallholder agriculture is growing
- Private sector engagement, especially related to value chains, is increasingly required, as is co-funding from private sector partners

Gender

- On average, women constitute 43% of the global agricultural workforce (49% of farmers in sub-Saharan Africa and 43% in Asia), but with vast variation across regions. In some areas, farming is almost entirely carried out by women due to migration of the male population to cities
- However, women's production levels are 20–30% lower than men's due to issues such as lack of access to and control over land, labour and credit; lack of knowledge; and lack of market opportunities
- Women's agricultural production is usually coupled with household and family responsibilities, so new technologies must be adapted specifically for women's situations
- Information, training and communication channels need to be tailored to local custom and practice

Youth

- Youth involvement in agriculture remains low. Many do not see agriculture as an attractive option
- Increasing the participation of young people is key to reducing poverty but barriers to their entry include lack of access to land, information, finance and other inputs
- However, attitudes to farming are changing, and young women and young men can be attracted by viable agribusiness opportunities, particularly where technology can help them achieve success
- Other areas seeing increased interest are youth employment; social science-related impact assessments; rural–urban migration at the country level; and overseas migration on a global level

Climate change

- Climate change is impacting agriculture in various negative ways, and smallholder farmers in developing countries are often the most vulnerable and are disproportionately affected
- Climate change is increasing the distribution and severity of crop pests, including invasive species, further negatively affecting crop production and posing a threat to global food security
- Agriculture is also a major climate change driver, as it is the world's second largest contributor to the emission of greenhouse gases
- There is a strong association between climate change vulnerability and gender, with a significant overlap of countries vulnerable to climate change and countries of gender inequality. The impacts of climate change are not gender-neutral and inequality may severely limit the resilience and adaptive capacity of women, families and communities

5.2 Member Country priorities

In the most recent round of our triennial Regional Consultations in 2018 and 2019, covering Africa, Asia and the Americas, Member Countries recognized that agriculture is a major driver of economic development but that actions are needed to improve trade and market access in agricultural produce at the national, regional and global level.

Our Member Countries have identified the following priority areas of activity for CABI:

- improving value chains and market access, concentrating on high-value and indigenous crops, but with a "whole-of-chain" approach covering SPS, traceability and biosecurity
- applying climate-smart agriculture in practice, including water use
- considering the social and environmental impact of projects for women and youth, including intensive urban agriculture
- applying integrated approaches to crop and livestock production, protection and processing
- investigating and tackling invasives pathways and implementing proactive, early warning and rapid response, not reactive defence
- using microbial resources within the constraints of the Access and Benefit Sharing provisions of the Nagoya protocol
- promoting and building farmers' business skills
- aiding evidence-based agricultural practice and policy
- knowledge management advice and consultancy development, language and data literacy

5.3 Setting our strategic direction based on this context

Previously, CABI's strategic objectives and priority actions were aligned against specific SDG targets, concentrating particularly on SDGs 1, 2, 4, 12, 15 and 17. For the period from 2020 to 2022, this strategy continues to support delivery of the original six SDGs as relevant and important. However, the global context and the specific priorities of our Member Countries, as described above, now place much greater emphasis on the pressing need to address aspects of SDG 5 (Gender Equality) and SDG 13 (Climate Action).

The drive to put smallholder farming onto a stronger business footing is coupled with the recognition by governments, industry and the international development community that this must happen in a way that is sustainable and climate-resilient, does more to recognize and empower the role of women in agriculture, and seeks to engage the younger generations in farming for the future. As a result, we will incorporate action on climate, gender and youth more overtly in our activities and plans on a proactive basis, rather than it being seen as merely a beneficial consequence of our project work.

Our Medium-Term Strategy 2020–2022 has been developed to respond to these needs, and therefore specifically identifies goals, objectives and activities with an impact on gender, youth and climate change. It continues to leverage CABI's core skills and competencies in building and strengthening sustainable, climate-resilient value chains for food, fodder, fuel and fibre, thereby contributing to national economic growth and food security and providing meaningful employment and involvement for women, youth and marginalized groups.

6. Overview of the strategy

6.1 Strategic goals

- **To improve market access for smallholder farmers to sustainable value chains**: we aim to deliver a world where smallholders, family farmers and other value chain actors sustainably produce high-quality agricultural products, access markets and improve their livelihoods as they contribute to meeting the increasing global demand for the safe, nutritious, quality food required by consumers
- **To build capacity for delivery of climate-resilient food and nutrition security**: we aim to deliver a world where climate change adaptation strategies at farm and landscape levels increase the output of safe and nutritious food, as well as building climate resilience for individual farmers and the agricultural economies in which they operate, balancing the utilization of ecosystem services and biodiversity with the requirements of conservation for long-term sustainability
- **To help women and young people gain new opportunities from access to targeted, context-specific agricultural information and technology**: we aim to deliver a world where women, youth and marginalized communities are included in agriculture, thereby ensuring equity, increasing participation in agribusiness and reducing youth unemployment while promoting livelihood improvement, increasing production and reducing poverty
- **To promote the balanced use and conservation of biodiversity and ecosystems**: we aim to deliver a world where the utilization of biodiversity and ecosystem services to increase agricultural output is balanced with the needs of conservation and the protection of pristine environments

6.2 Thematic areas

- **Crop health**: focusing on enabling farmers to become more resilient to climate change and to adopt integrated crop management (ICM), improving plant health by integrating smart and scalable processes and tools into their production systems to increase the sustainable supply of safer and more nutritious food
- **Value chains and trade**: focusing on providing smallholder farmers, particularly women and youth, with the skills, knowledge and access to resources needed for them to improve their livelihoods by participating in local, national and international value chains through the sustainable delivery of nutritious, high-quality agricultural products, services and off-farm employment
- **Invasive species management**: focusing on ensuring invasive species have minimal impact on agriculture and the environment so that, in a globalized world with a changing climate, invasion risks are determined and minimized while established invasives are controlled through economically, socially and environmentally sustainable approaches
- **Development, Communication and Extension**: focusing on promoting the uptake of research innovations at scale through the use of development communication approaches to improve incomes; enhance nutritional outcomes; make farming systems more resilient; and lead to greater anticipation and mitigation of shocks, including from climate change
- **Digital development**: focusing on magnifying development impact through digital innovation in agriculture and the environment. This involves using digital tools and partnerships to allow communities to overcome agricultural challenges, fight invasive species and safeguard their food security and livelihoods. We will apply a user-centred and inclusive approach to ensure broad access to the opportunities provided by digital development
- **Science publishing and journalism**: focusing on enabling researchers to identify and aggregate valuable insights, as well as synthesizing and disseminating evidence in ways that help our end users to learn, apply knowledge, continue their personal development and make critical decisions in their professional lives

6.3 Objectives and activities

Under each of the thematic areas are a number of objectives we aim to achieve during the strategy period, as described in Section 9.

To achieve these objectives, we have planned a set of activities we will carry out during the period of the Medium-Term Strategy 2020–2022. These are detailed in **Appendix 1, together with their associated targets/measures.**

7. Theory of Change

IMPACT

Sustainable economic development, improved livelihoods and better nutrition through greater market access for climate-resilient agriculture in healthy ecosystems

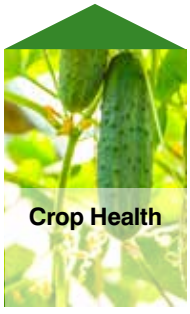
STRATEGIC GOALS

- Improve access for smallholder farmers to sustainable value chains
- Build the capacity for climate-resilient food and nutrition security
- Help women and young people gain new opportunities in agriculture
- Promote balanced use and conservation of biodiversity and ecosystems

DELIVERING IMPACT AT SCALE

Policy Change | Knowledge Platforms | Partnerships & Alliances | Face-to-Face | Media | Digital | Print

KEY PROGRAMMES



CORE STRENGTHS

Bridging the needs of developed and developing country partners

Objective, science-based approach to putting research into use

Knowledge management, communication and dissemination

Deep scientific knowledge of plant pests and diseases

Working in partnership with a broad international network

Delivering value for money to donors and partners

8. Delivering the future vision: our strategic goals

In line with the international development priorities (SDGs) and the context discussed in Section 5 we have defined four strategic goals under our Medium-Term Strategy 2020–2022. The following paragraphs set out these strategic goals and what CABI will do to achieve them in more detail.

GOAL 1 Improve market access for smallholders to sustainable value chains

Agriculture is widely recognized as one of the fundamental drivers of economic growth and increased rural household incomes. About 70% of agricultural output comes from smallholder farmers who are particularly vulnerable to production challenges, including climate change. Therefore, many of CABI's Member Countries have identified, as a high priority, the need to address the challenges for smallholder farmers to participate more effectively in agricultural value chains at various stages (production, value addition, marketing and product diversification) to enhance growth. Cash crops are also an important income source for smallholder farmers, enabling them to improve their livelihoods while supporting food and nutritional security by giving farmers the ability to purchase higher quality food for their families. CABI has a strong track record in supporting farmers in cash crop systems, which are often not well-served by national and international agricultural research systems (NARS) that often focus on staple crops. To improve market access for smallholders, we will:

- strengthen small and medium agri-enterprises, including women and youth-based business organizations, through building capacity in business awareness and skills for better access to inputs (including seed and affordable credit) and output markets
- support climate adaptation and reduce the environmental impact of farmers growing cash crops (e.g. coffee, cocoa, cotton, coconut, spices) through the adoption of improved varieties and good agricultural practices
- build the capacity of public and private sector technical experts through public–private partnerships, to ensure compliance with market requirements and SPS measures (plant health, animal health and food/feed safety)
- facilitate linkages among value chain actors, and strengthen compliance with food safety standards (in accordance with the WTO SPS Agreement) to facilitate trade.

GOAL 2 Improve capacity for the delivery of climate-resilient food and nutrition security

CABI recognizes the need for immediate implementation of adaptation strategies at the farm and landscape level to decrease the vulnerabilities of individual farmers and entire agricultural economies to the adverse effects of climate change, as well as the need for mitigation efforts to reduce global climate change, sustain food production and maintain livelihoods. Diversification of cropping systems can be an important strategy to achieve climate-resilient nutrition security and improve farmer livelihoods, particularly by switching to horticulture or indigenous crops. However, farmers diversifying in this way will need information and support to help them adopt new varieties and cope with unfamiliar pest or disease problems.

Our research activities support improved understanding and forecasting of the impact of climate change on pests and pest management strategies, as well as the development of context-specific adaptation and mitigation approaches. Our broad network of multilevel partners e.g. the Association of Independent Research and Development Centres in Agriculture (AIRCA), the Global Alliance for Climate-Smart Agriculture (GACSA) and the Consultative Group for International Agricultural Research (CGIAR) Research Programme on Climate Change, Agriculture and Food Security (CCAFS) strengthen our capacity for innovation in, and implementation of, climate-smart agricultural approaches and practices. To improve capacity for the delivery of climate adaptation and mitigation interventions, we will:

- develop greater sustainability and climate resilience of agricultural systems, their dependant livelihoods and surrounding environments
- promote the global diversification of agriculture to improve the nutritional value and climate resilience of the crops grown, with particular emphasis on fruits, nuts, vegetables, pulses and indigenous crops

- provide direct support to Member Countries and non-member countries to enhance institutional capacities and facilitate implementation of climate-responsive interventions
- facilitate access to climate financing through increased linkages and interactions between CABI and Member Country (and non-member country) governments, donors, UNFCCC focal points and other national/regional stakeholders
- ensure best practice information on adaptation and mitigation is findable, accessible and relevant to facilitate coordinated action by public and private sector organizations, integrate climate change into capacity-building activities and contribute to appropriate policies and support mechanisms
- support the design and implementation of climate-responsive interventions and thereby contribute to the fulfilment of Nationally Determined Contributions by Member Countries and non-member countries

GOAL 3 Help women and young people gain new opportunities from access to targeted, context-specific agricultural information and technologies

Over the past three years, we have built significant experience of the ways in which gender influences access to (and the uptake of) information, and we have identified drivers and barriers to the uptake of technology. To make a difference, we need to increase access to targeted agricultural information, equipment and resources. Digital tools will be particularly powerful in this respect, allowing advice to be tailored to women and young people, particularly to those that are marginalized (indigenous communities that receive little or no government services). We will also use other appropriate formats and channels beyond digital ones. The main area where we can enhance the involvement of women and youth will be through our work on value chains, looking not just at the production stages but also how they can become involved in off-farm and non-farm rural activities. In addition, we will reflect the fact that local communities, including women and marginalized groups, have traditional knowledge that should be respected in the delivery of our programmes and projects.

CABI is fully committed to taking a proactive approach to mainstreaming gender throughout its work, ensuring that the concerns and experiences of women and youth are integrated from the outset in the design, decision-making, implementation, monitoring and evaluation of our projects. To help women and young people gain new opportunities from access to targeted, context-specific agricultural information, we will:

- empower women and youth through deliberate gender-focused interventions to be agricultural entrepreneurs, both on the farm and in off-farm roles (e.g. seed multiplication, biocontrol agent rearing, advisory service providers, providers of pesticide application services, agro-input suppliers, or food aggregators, processors or sellers)
- build partnerships to facilitate the provision of services (e.g. access to inputs, information delivery, value addition, movement of produce to markets, finance, business skills and pest and disease management) to women, youth and marginalized groups in agricultural communities
- identify and develop deliberate gender-focused interventions to build non-farm rural employment opportunities for women and youth, e.g. in sustainable tourism
- promote the integration of existing knowledge, priorities, needs and constraints in relation to different age and gender groups in research plans to maximize quality and impact
- increase the understanding of how women, youth and marginalized groups access agricultural information, and tailor that information to address their needs through appropriate communication channels and digital tools

GOAL 4 Promote the balanced utilization and conservation of biodiversity and ecosystems

Feeding a growing global population in the face of a changing climate will require the sustainable intensification of agriculture by smallholders and large-scale commercial farmers alike. This will inevitably result in a conflict of priorities between the need for greater food output and the conservation of valuable biodiversity or pristine environments for future generations. This will require agriculture and environmental sciences to work together, developing shared approaches to model economic value at the landscape level, balancing short- and long-term needs.

CABI helps to meet these challenges at the macro (landscape) level and at the micro (biodiversity) level. Through our capacity-building efforts in ICM, we give farmers the knowledge they need to manage their use of biological resources, chemical inputs and ecosystem services more effectively so as to optimize yields without causing long-term damage to, or the depletion of, their local environment. Our work on invasive species helps prevent or control the spread of non-native plants, insects and animals, which would otherwise threaten valuable natural habitats and resources. At the micro level, our work to preserve, identify, understand and exploit the biodiversity of microorganisms helps maximize their utilization and limit their detrimental effects on agricultural and industrial production. To promote the balanced utilization and conservation of biodiversity and ecosystems, we will:

- improve the understanding and forecasting of climate change impacts on pests and crop/landscape management strategies (especially in developing countries) to inform the development of context-specific adaptation and mitigation strategies
- support national and regional prioritization of risks and threats from invasive species in agriculture and the environment
- strengthen the capacity of national agricultural and environment organizations in prevention, early detection and rapid response, as well as in best management practices
- utilize next-generation molecular technologies to better understand microbial community composition in the soil, rhizosphere, plant tissue, water and environmental samples to gain a deeper understanding of its impact upon agriculture and the environment
- develop strategic partnerships to access capability in ecology, hydrology, water usage and the discovery of novel active compounds or organisms with value in the pharmaceutical, food and agriculture sectors

9. Thematic areas

To deliver the development goals described in Section 8 above, CABI's activities will focus on six key thematic areas (as defined below). This section will provide a brief background and set out the strategy and key objectives for each programme. **Appendix 1** describes the underlying key actions and targets/deliverables for each one. These key areas are underpinned by a cross-cutting platform of scientific research and the broad coverage of our science publishing and journalism activities.

Gender will be a key consideration across all our thematic areas. Achieving our strategic goal of empowering and employing women and youth will require us to take a gendered approach across all of our development work, from the very outset of project planning. We will manage our projects with the aim of achieving gendered results wherever possible, ensuring measurement of outcomes and impact can take place on a gender-disaggregated basis, with careful analysis to understand the drivers of difference between groups. This commitment will be tracked through our Monitoring, Evaluation and Learning activities (see Section 10) as follows:

✓ OBJECTIVE 1 **Gender incorporated from the outset in project development, planning and implementation**

✓ OBJECTIVE 2 **Gendered measurement of outputs and outcomes reported widely, with sharing of results and lessons learnt**

Climate-Smart Agriculture will be similarly cross-cutting as we develop our plans for the six key thematic areas. Together with partners, CABI will help smallholder farmers face the challenges of climate change with confidence through Climate-Smart Plant Health systems to increase incomes and the supply of safe and nutritious food within sustainable farming systems. We will seek to build resilience and adaptation to climate change whilst mitigating greenhouse gas emissions where possible.

9.1 Crop health

Plantwise strengthens plant health systems from within, enabling national systems to provide smallholder farmers with effective advice on how to manage crop health. Since 2011, Plantwise has been introduced in 34 countries in Africa, Asia and the Americas, and has reached 31 million farmers directly and indirectly through its plant clinics and complementary extension campaigns. Plantwise has been implemented in partnership with over 170 in-country public, private and civil society organizations. At the farm level, we have compelling evidence that Plantwise impacts on farmer knowledge, crop yield, household incomes and pesticide use, while at the national level the project's benefit–cost ratio is 3:1.

Experience gained through the Plantwise programme has highlighted the urgent need to improve the skills of a wide range of actors who advise farmers on plant health, particularly on diagnostics and safe, effective management practices. We have found that awareness of pesticide risks and mitigation measures (e.g. personal protective equipment and low-risk alternatives to pesticides) is low among farmers, as well as among agro-advisory service providers. This contributes to farmers exceeding allowable pesticide residue levels (minimum residue levels) on food, particularly in local markets where related standards are not effectively enforced.

We will build on the lessons learnt thus far in implementing Plantwise. We will also incorporate new concepts within an evolved Plantwise offering that will be designed to make agricultural production and food supply systems safer and more sustainable through integrating smart, scalable processes and tools in plant health systems, with the aim of increasing the supply of and access to safer produce. In particular, we will leverage the experience gained through PRISE and other geospatial data projects to leverage the power of technology (especially sensors, drones and satellite imaging) to provide farmers with more granular predictive information on crop health and pest or disease threats.

The Plantwise programme will evolve into a more proactive crop-focused "Predict and Prevent" approach building on the original responsive "Diagnose and Treat" model (any crop, any problem). The aim is to create a global programme promoting climate-smart approaches to crop production that increase smallholder incomes and the supply of safer, more nutritious food.

Our crop health objectives are as follows.

✓ OBJECTIVE 3 **Evolve current core programmes to promote sustainability and climate resilience of agricultural systems**

✓ OBJECTIVE 4 **Data-driven pest prioritization, monitoring and management systems using new technologies and processes**

✓ OBJECTIVE 5 **Uptake of diverse crops and GAP accelerated to increase the supply of safe and nutritious food**

✓ OBJECTIVE 6 **Reduce and remove greenhouse gas emissions where possible**

9.2 Value chains and trade

CABI works on both food system value chains and those for cash crops, such as coffee, cocoa, tea and cotton. Our expertise in the identification of challenges in the value chain through stakeholder participatory analysis, strengthening producer organizations and building the capacities of value chain actors (producers, intermediaries, input suppliers, regulators, etc.) – especially on compliance with national and international standards in line with the SPS Agreement – are key to strengthening value chains and promoting trade. This work is facilitated by CABI's Member Country linkages, as well as established partnerships with national governments, regional economic blocs and international bodies.

Our work on value chains is also likely to provide the greatest opportunities to involve women and youth more equitably in production on the farm, as well as provision of services to improve the quality and safety of produce or in post-harvest processing off-farm.

Our value chains and trade objectives are as follows:

✓ OBJECTIVE 7 **Sustainably increase agricultural productivity and incomes**

✓ OBJECTIVE 8 **Develop vibrant value chains and trade linkages to support economic development in target countries**

✓ OBJECTIVE 9 **Enable equitable and inclusive agribusiness growth through activities specifically focused on women and youth**

9.3 Invasive species management

Invasive species are species that arrive in a new area and cause damage to crops, livestock production, economic activities, human health and the environment. They include microbes, weeds, insects, vertebrates and other organisms. Since it was established over 100 years ago, CABI has been working on invasive species and pest management, and our Member Countries have repeatedly identified invasive species as a priority area for action by the organization.

We have particular expertise in the integrated management of invasive species, including biological control (a cost-effective, environmentally-friendly and sustainable approach), in both developed and developing countries. Our open access **Invasive Species Compendium** (ISC) (**www.cabi.org/isc**) is extensively used by practitioners, researchers and others worldwide. Our **Action on Invasives** project (**www.cabi.org/action-on-invasives**) aims to protect and improve the livelihoods of over 50m poor rural households impacted by invasive species. This is based around a three-tiered approach to management:

- **Defend** – preventing the initial introduction of invasive species
- **Detect** – early detection, rapid response and eradication of new invasions (where possible)
- **Defeat** – the control and mitigation of species where they are so widespread that eradication or containment is not feasible

Our invasive species management objectives are as follows:

✓ OBJECTIVE 10 **Strengthen policies, plans and capabilities to enable more effective country responses to the threat of invasive species**

✓ OBJECTIVE 11 **Increased awareness of the risks and costs of invasive species, leading to greater investment in their control**

✓ OBJECTIVE 12 **Promote more effective prevention and management of invasive species incursions**

9.4 Development, Communication and Extension

Farmers need better access to information and inputs to build their businesses, grow more diverse and better-quality crops, connect with higher-value markets and adopt more sustainable practices. Furthermore, to involve women and youth more equitably in farming requires social change, which means addressing attitudes, systems and policies. CABI uses development communication to deliver change in a sustainable way, ensuring that new research findings and innovative ideas (such as climate-resilient farming practices) are adapted to local contexts and taken to scale. This approach is highly cost-effective, allowing us to reach millions of farmers and support sustainable change of low to moderate complexity at a cost of less than US $1 per farmer.

CABI's development communication activities are cross-cutting in relation to our Medium-Term Strategy 2020–2022: they make an important strategic contribution to transformation in agriculture and related sectors. A range of complementary activities – including publishing, marketing, extension service provision, science journalism through SciDev.Net and digital development (see the subsections on these other thematic areas) – mean that CABI is uniquely positioned to deliver research communication activities using a wide range and blend of channels.

Our development, communication and extension objectives are as follows:

✓ OBJECTIVE 13 **Expand the evidence base to support projects building on prior learning and experience**

✓ OBJECTIVE 14 **Design innovative blended communication campaigns to optimize reach and impact with target audiences**

✓ OBJECTIVE 15 **Improve access to knowledge, information and evidence on nutrition, plus climate change adaptation and mitigation**

✓ OBJECTIVE 16 **Use participatory content development, working with local, national and regional partners who have the skills and knowledge to inform the development of audience-focused materials**

9.5 Digital development

Digital development (the use of digital tools to support international development) presents great opportunities to support sustainable agriculture and environmental management by improving the scale and efficiency of interventions, opening doors to new innovations. Digital tools can help to reach a broad range of stakeholders, including farmers, policymakers, extension workers, researchers and landscape managers, enabling them to access information quickly and easily, make data-driven decisions about their activities and communicate with each other.

Digital development in CABI is closely linked to the broader Development, Communication and Extension thematic area described above. The skills, infrastructure and information resources needed in both our publishing business and our digital development work are complementary, and we are able to leverage skills from different areas of the organization for greater impact. By putting know-how into people's hands and turning evidence-based information into actionable advice, we help commercial growers, family farmers and smallholders to grow safer and more nutritious food more efficiently and with less environmental impact.

CABI will apply international best practice to turn evidence-based information into actionable advice, working in close partnership with end users to deliver relevant, locally-owned solutions. We will draw on Member Country relationships and project partnerships to guide digital interventions, ensuring that solutions are embedded within national systems.

Our digital development objectives are as follows:

✓ OBJECTIVE 17 **Develop decision support tools to help users translate data and information into positive action and impact on crop health**

✓ OBJECTIVE 18 **Co-develop solutions with end users that are context-specific, appropriate and meet their needs**

✓ OBJECTIVE 19 **Maximize the reach and impact of digital solutions by designing for inclusivity, interoperability, sustainability and scale**

9.6 Science publishing and journalism

9.6.1 Science publishing

CABI's publishing business is a successful business in its own right but is also a vital source of content and information management skills for our international development activities. The profit from commercial publishing activities supports the organization's mission by providing a sustainable source of revenues and surplus to cover most of our corporate expenses. This allows CABI to be more cost-effective, delivering better value for money in our project work on behalf of donors and Member Countries.

CABI's publishing and knowledge business operates primarily in the area of academic research, covering a much wider range of content going beyond the agriculture and environment space covered by our international development activities. We support and enable the process of research; we identify and aggregate valuable insights; and we synthesize evidence in ways that help our end users learn and apply knowledge when making critical decisions in their professional lives. Our activities are orientated around three elements in knowledge creation and transfer, as follows.

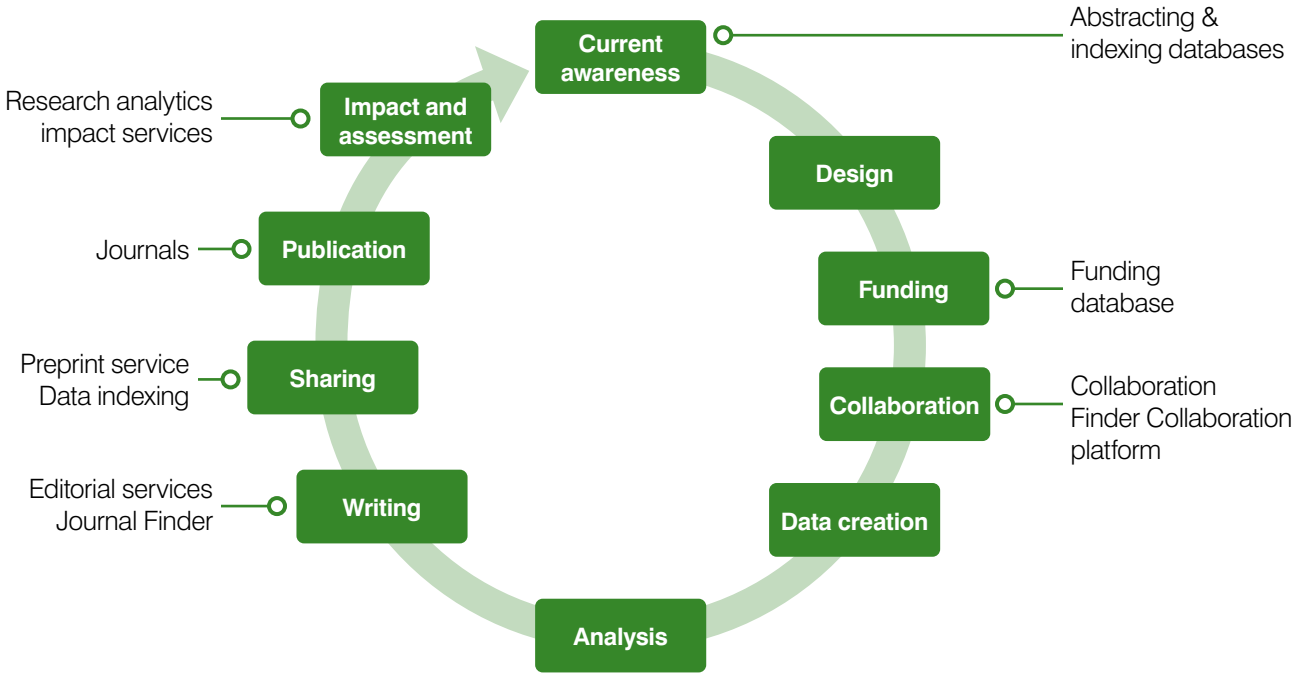
Research and evidence: the creation, systematic evaluation, synthesis and dissemination of evidence-based research

Learning: the acquisition of up-to-date knowledge or skills

Practice: the application of evidence-based knowledge and skills to improve an outcome

In the light of current trends in agricultural publishing (the huge quantity of articles published; the rapid growth in open access journal publishing; and the increasing trend towards evidence-based agriculture), there are significant opportunities for CABI to improve the productivity of the research process and to help agricultural researchers deliver better, more accessible research that addresses the challenges to food security and the environment.

Opportunities to enhance efficiency in the researcher workflow



CABI can act as a catalyst to help define evidence-based agriculture, developing tools and databases that enable the production of evidence-based recommendations at scale that can be translated into actionable guidelines. By positioning CABI at the heart of open, evidence-based agriculture and providing solutions around the workflow of scientists, we can be a publisher of choice as well as a valued partner for research funders and donors seeking to maximize the impact of their outputs.

E-learning also provides an opportunity to build on CABI's existing expertise and track record in training and book publishing to enable greater access to training and development for youth, women and other disadvantaged groups. In 2017, CABI launched PestSmart Diagnostics, an e-learning programme derived from the Plantwise materials developed to train plant doctors. A companion product (PestSmart Management) is in development. Our strategic aim is to develop a full curriculum of e-learning (with print materials as appropriate) spanning GAP and linked to certification, including generic and customized local content to fit career pathways and continuing professional development.

In the longer term, CABI is positioned to test products for the practitioner market, given its unique combination of research and data, development and technical publishing skills mixed with a variety of business models. During the period of this Medium-Term Strategy, we will seek to secure our existing base of business, capture near-term product opportunities and begin to develop the longer-term areas of potential. Our science publishing objectives are as follows:

✓ OBJECTIVE 20 **Provide products, analytics and tools to support open science, increase research productivity and promote evidence-based agriculture**

✓ OBJECTIVE 21 **Build an e-learning curriculum to help practitioners and students acquire vital knowledge and skills**

✓ OBJECTIVE 22 **Develop practical tools and services based on reliable research and data**

9.6.2 Science journalism – SciDev.Net

SciDev.Net aims to deliver independent, science-based journalism supporting the systematic and regular application of scientific evidence and insights in policy, programmes and projects. SciDev.Net has a range of impacts that support CABI's overall strategy and positioning as a source of objective science-based information, including recognition of its work among the scientific community, its influence in policy formation or change and its ability to convene senior stakeholders.

Operationally, the merger of SciDev.Net with CABI presents opportunities to expand reader reach and improve the visibility and impact of research. Editorially, we must ensure that our audience continues to have trust in our outputs. These objectives will be delivered by the continued production of accurate and innovative science-based news stories and media content, using novel approaches to draw attention to key development issues related to science (such as gender, youth and health) while also facilitating communication and relationships between scientists, journalists and policymakers. Specifically, this will be achieved by providing access to accurate, understandable information, by improving and encouraging analysis of research findings and by increasing and maintaining partnerships to facilitate the dialogue between research and policy.

10. Measuring our performance and impact

Monitoring, evaluation and learning in CABI aims to measure and optimize the results of interventions, ensure relevance and efficiency in their implementation and learn what works, what doesn't and why in a particular context. This will contribute to assessing our thematic area outcomes and impact against the CABI Medium-Term Strategy 2020–2022 and against the SDGs to generate an understanding of change and inform learning within the organization. Our findings will be published to contribute to the broader body of knowledge and debate on development approaches and policies.

Currently, CABI has nine monitoring, evaluation and learning staff, one of whom is a trained agricultural economist and a further five are agricultural/socioeconomists. Other staff are employed in more general roles with a social science element and contribute to some elements of outcome and impact evaluation work.

Basic project monitoring, which occurs in all our projects, feeds into reporting at the organizational level. CABI's key performance indicators encompass our work towards achievement of the SDGs, as well as our corporate performance on issues such as staffing and finance. The critical milestones of the Medium-Term Strategy 2020–2022 will be monitored and reported to Executive Management Team (EMT) and the Board on a quarterly basis using information obtained from across CABI thematic areas, centres and projects.

Generally, CABI works in complex agricultural systems where interventions in one area will be influenced by other aspects of that agricultural system; in turn, an intervention may affect other parts of the system in ways that were not anticipated by the project. The broad areas in which we seek to achieve change fall under three main impact pathways:

- **technology development and adoption**, including interventions that support the trialling and adoption of technologies and practices
- **systems change**, including capacity development
- **policy influence**, generating evidence that contributes to development debates

Therefore, the monitoring and evaluation approaches we use must be flexible enough to identify intended and unintended outcomes and impacts, both positive and negative. CABI uses a variety of evaluation designs (e.g. experimental, case-based, participatory) and a mix of qualitative and quantitative methods at different scales (e.g. impact stories, case studies, large-scale studies) to evaluate outcomes and impact. CABI also provides a broader range of evidence to show value for money. We already have a number of systems in place to deliver efficiency, economy, effectiveness and equity in our work. During the period of the Medium-Term Strategy 2020–2022, we will continue to review our practices to ensure that we obtain high levels of performance across all four elements of value for money.

There is increased demand for evaluation of outcomes and impact, but this is not always funded by donors, so some work is supported with core funding instead of (or in addition to) project funding. To optimize the use of these scarce resources, our key criteria for the selection of work and investment are as follows:

1. **Innovative**: the intervention or technology is testing a new approach with a potential for impact
2. **Replicable**: the intervention or technology is replicable in other countries or scalable to a large population of beneficiaries, particularly in CABI Member Countries
3. **Strategic**: the intervention or technology is strategically relevant to the CABI Medium-Term Strategy and science strategy, which link to delivery against the SDGs
4. **Need for evidence**: understanding how the intervention is implemented, including influences of context, is critical to understanding how impact can be reached
5. **Policy relevance**: the results of an impact study provide evidence that contributes to development debates

During the period of the Medium-Term Strategy 2020–2022, we aim to **invest in at least one significant impact evaluation per year** beyond the key Plantwise and Action on Invasives programmes. This will either be a stand-alone study or will complement funds already identified in projects to enable a more in-depth study to be carried out. In addition, we will **invest in one to two smaller mixed-method impact case studies** that carry out ex-post investigations to assess project outcomes and impact while supporting CABI staff, with back-up from a technical editor, to narrate the findings from existing published/unpublished work.

A pipeline of studies for evaluation will be agreed on an annual basis, and this will be used to inform planned external communications by the Marketing and Communications team. Evaluation and learning results will be documented and communicated to optimize their use for operational, strategic and policy decisions both inside and outside CABI.

11. Regional strategies

11.1 Africa

CABI currently has 16 Member Countries across Africa. Ethiopia has applied for CABI membership and is currently proceeding with the in-country process to sign up to the CABI treaty following approval by Executive Council. Further efforts will be made to broaden the membership base in the region.

Work in Africa is carried out through a Regional Centre for Africa in Kenya, subregional centres in Ghana and Zambia and an office in Uganda. Regional partnerships – e.g. with the African Union (AU), the Economic Community of West African States, the Southern African Development Community, the Common Market for Eastern and Southern Africa and Trade Mark East Africa – remain critical to CABI's success in Africa. It is also important that we continue to work with international and regional organizations with similar goals, including AIRCA, the members of CGIAR, the Alliance for a Green Revolution in Africa, the African Forum for Agricultural Advisory Services, the Regional Universities Forum for Capacity-Building in Agriculture, Africa and the African Development Bank.

During the period of the Medium-Term Strategy 2020–2022 and onwards, our work will focus on meeting the needs of our Member Countries supported by the activities carried out under the strategy's thematic areas. We will develop new opportunities for the existing/mature markets and expand our current work into fragile/new markets like South Sudan, Burundi, etc. Regional economic communities will be an important target group: we will help them develop their technical capacities to enable them to deliver and also to extend the impact of our work.

Bilateral funding is becoming increasingly important as donor desks shift more funding away from headquarters and directly to national government ministries. To expand our project portfolio in areas such as climate change, gender, economic development and food and nutritional security, we will build stronger relationships with in-country donor desks. This will call for close partnerships with the NARS in the Member Countries, and public–private partnerships will also be important. To this end, a Deputy Director Strategic Partnerships will be appointed specifically for this role.

CABI will also strengthen its research portfolio (particularly in the field of invasive species management) by pursuing opportunities to establish a fully-equipped laboratory in collaboration with a national research partner in Kenya and an international private sector partner.

11.2 Asia

CABI currently has 15 Member Countries across Asia, with Afghanistan being the newest. These countries are very diverse in terms of their economic maturity and agricultural development. Our centres in India, Pakistan, China and Malaysia are well-placed to serve subregional groupings and needs. We have also established CABI project offices in Afghanistan, the Democratic People's Republic of Korea (DPRK) and Myanmar, which will present opportunities to develop further projects in these Member Countries.

A key part of our strategy in the region during the period of the Medium-Term Strategy 2020–2022 will be to develop significant opportunities for new public–private sector partnerships around value chains (e.g. with Olam in Vietnam and WeltBIO in Cambodia) and trade (e.g. with the STDF and International Finance Cooperation). These will focus on helping farmers access higher-value market opportunities and adopt ICM approaches (e.g. the 'Green' rice and vegetables project in Myanmar, funded by ACIAR). CABI will also test private sector engagements in China, India and Pakistan, where we are moving into the food safety arena (specifically in the area of aflatoxins) with a new USAID/USDA-funded public–private sector partnership. In the Pacific, CABI will continue to deploy its scientific expertise together with Australian partners – particularly ACIAR – to build the capacity of NARS, and with the horticulture industry on biosecurity and value chains.

Both China and India already have significant, high-quality NARS and now receive little agricultural development aid from the West. To add value in these countries, CABI will explore opportunities related to putting local research into use more widely and more effectively. There is a growing awareness of the economic and environmental impacts of invasive species in these countries, as well as of the need to provide more low-risk pest managements solutions. In China, this will be delivered through the expansion of the successful Ministry of Agriculture and Rural Affairs (MARA) China–CABI joint laboratory in Beijing, as well as through the establishment of a sister joint European laboratory in Switzerland. The successful implementation of the joint laboratory in China has sparked the interest of other Member Countries, and a Malaysian Agricultural

Research and Development Institute–CABI Joint Laboratory will soon commence operations in Malaysia, following the scope, function and governance of the laboratory in China. There are also possible opportunities for a similar structure in India in partnership with the Indian Council for Agricultural Research.

Through linkages with national research organizations, we can act very successfully as a bridging organization in South–South or triangular cooperation, as we have done for example using EU DEVCO funds to put Chinese expertise and technology into use in the Greater Mekong subregion and DPRK. China's Belt and Road Initiative may also provide opportunities to enhance the phytosanitary capacity and risk management of multiple crops, as well as to implement supporting knowledge systems. In Pakistan, CABI is seen by donors such as ACIAR, USDA and USAID as a key bridging partner for the Government of Pakistan and the national agricultural research organization. Similar opportunities and partnerships will be explored in Afghanistan to promote rural value chains.

11.3 Europe

CABI has four Member Countries across Europe (UK, Switzerland, the Netherlands and Cyprus). CABI's centres in the UK and Switzerland provide the core of CABI's research activities with a strong scientific reputation in the identification, diagnosis, prevention and control of invertebrate pests, plant diseases and weeds. The teams in these centres have long-term, well-established working relationships with CABI Member Country research institutions and have built up a reliable network of funding sources from the UK, Switzerland, the European Union, the United States and Canada. Increasing problems caused by invasive species combined with fewer options in the use of pesticides and herbicides (particularly in Europe and North America) should continue to offer good opportunities for our work in these areas. During the period of the Medium-Term Strategy 2020–2022, we do not expect to expand our physical presence to additional countries in Europe; rather, we will focus investment on broadening and improving the technology base of our current centres in line with the recommendations of CABI's science strategy.

CABI's centre in Switzerland specializes in the application of ICM, an approach designed to make agriculture more sustainable and climate resilient, increasing agricultural productivity while protecting and enhancing natural assets. In collaboration with the University of Neuchâtel, CABI currently offers a Masters of Advanced Studies course in ICM designed for students coming from developing countries who hold positions in the plant health sector. CABI also offers student internships and graduate student training in collaboration with universities and other research organizations. These training and education activities will continue over the coming years, since they help build a valuable network of alumni while making important contributions to the e-learning courses being developed by CABI.

During the period of the Medium-Term Strategy 2020–2022, CABI in the UK will continue to conserve its unique collection of 28,000 living microorganisms in liquid nitrogen and 350,000 dried herbarium specimens of fungi and bacterial (hosted at the Royal Botanical Gardens at Kew) on behalf of its Member Countries. We will also investigate ways to improve methods for the preservation and exploitation of the organisms therein. A commercial arm of these activities, CABI Bioscience, provides fee-based analytical services that are ISO 17025 accredited. CABI Bioscience is the only organization in the UK with ISO accreditation for the identification of microbial samples. This service, for large corporates and small- and medium-sized enterprises, is expected to continue to grow and to become increasingly profitable.

11.4 Americas and Caribbean

CABI currently has 14 Member Countries in the Americas and the Caribbean (with Costa Rica having paused its application for membership). These are served from three small operations in Brazil, Costa Rica and Trinidad. We have only limited presence in the region due to the restricted number of donor-funded project opportunities there. Therefore, the needs of Chile and Canada in relation to biodiversity and invasive species are being served by the CABI operations in the UK and Switzerland. Feedback from Member Countries during the regional consultations indicated that the priorities in the region are invasive species, trade and value chains, phytosanitary regulations, climate change, biological-based pest management and youth employment.

A recent review of the donor landscape revealed that overseas development assistance provided by the United Kingdom, Germany, the United States, Japan and Canada to the Caribbean and Central America places little focus on CABI Member Countries in the region. The portion of this overseas development assistance directed towards agriculture and the environment is also very low.

During the period of the Medium-Term Strategy 2020–2022, CABI will therefore need to focus on building upon its current successful project activities, for example invasive species management (UNEP-GEF Caribbean, AAFC, USDA and Colombia Colco), Plantwise implementation, agro-ecology (FAO) and ICM (private sector). We will also seek support from Member Countries to identify projects that can help meet their specific local needs and secure potential funding from USDA-APHIS, USAID, FAO, UNEP-GEF, EU DEVCO, the Inter-American Development Bank, British Canadian International Education and other regional/national donors, as well as from private sector partners.

Project development will remain a top priority, but a review of our current fragmented operations in the region will also determine how other CABI operations could provide support, while helping decide how and where to consolidate our future operational presence in the region.

12. Science Strategy

The CABI Science Strategy 2017–2019 was developed to provide scientific objectives and priority research focus areas to support the CABI Medium-Term Strategy 2017–2019, giving a medium-term context for shorter-term decisions in programme development, planning and resource allocation. The CABI Science Strategy 2017–2019 will be revised to cover the period 2020–2022 and to align it with the CABI Medium-Term Strategy 2020–2022. This will involve an external review of CABI's science in the context of the current CABI Science Strategy in Q3 2020 and the preparation of a revised CABI Science Strategy in Q4 2020.

The current Science Strategy priority research areas will be revisited, but are unlikely to change substantially. They are as follows:

- improve prediction and prevention methods for pests
- evaluate safe and effective IPM and biological control practices
- design and validate new extension approaches and communication tools
- develop ecosystem management approaches for invasive species

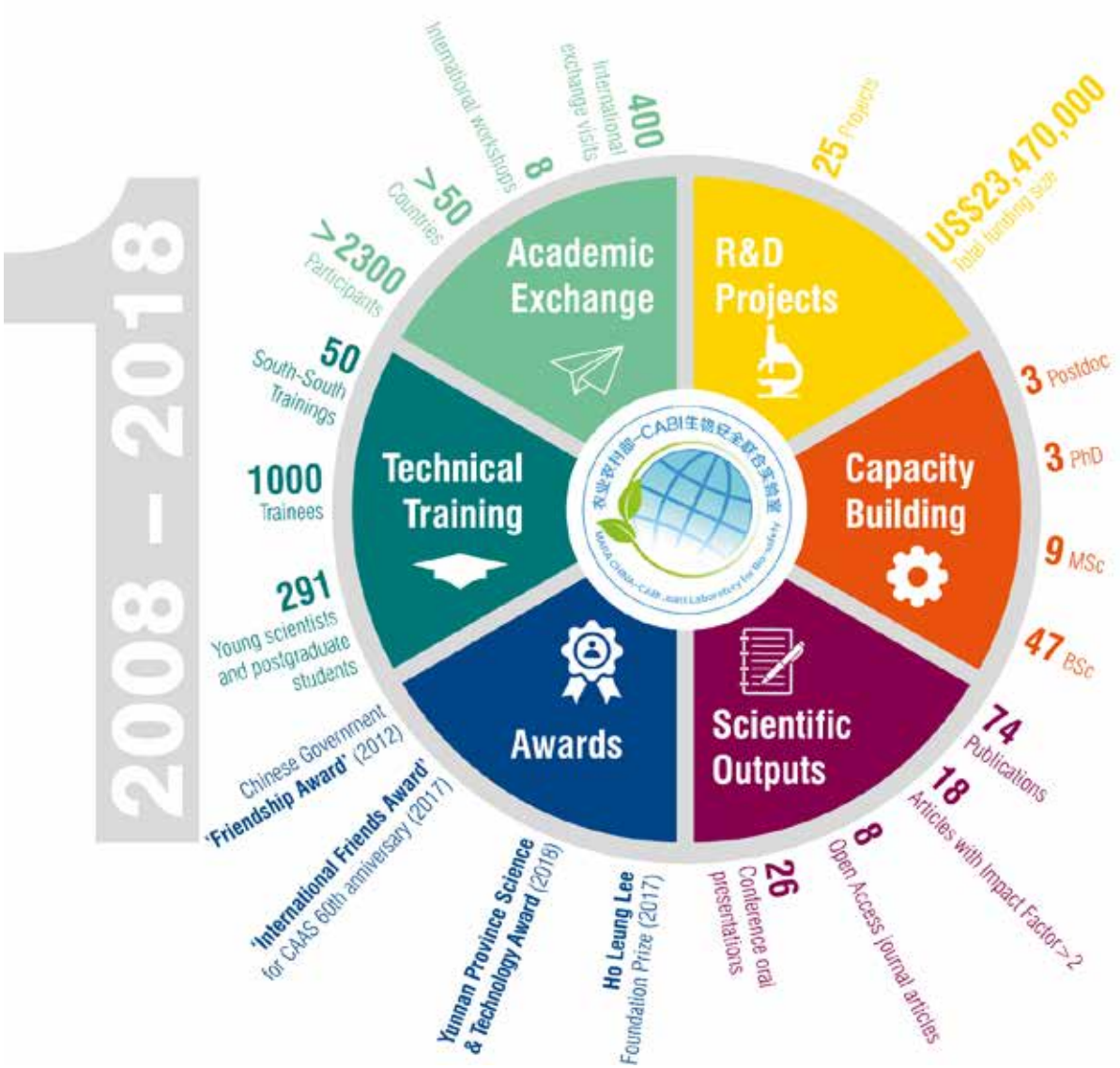
Several cross-cutting issues are likely to continue to provide significant inputs to the research, such as evidence of outcome and impact, gender and diversity, management and analysis of big data sets, advanced technology and communication. The implications of ongoing climate change are likely to be more strongly integrated across CABI's activities. The current Science Strategy has recognized the need to strengthen our capacity in social and economic science to deliver the planned outcomes at scale. We now have 13 scientists in these disciplines based at six different centres.

In 2018, we celebrated the 10th anniversary of our Joint Laboratory in Beijing, which was established between CABI and the Chinese Ministry of Agriculture and Rural Affairs. Since it opened, the Joint Lab has become a recognized centre of excellence for collaborative research in biosafety, plant pests and diseases. A particular focus is the control of invasive species through environmentally friendly biological control strategies. Going forward, we intend to continue growth of the operation in China and establish a second CABI-China Joint Lab at CABI's centre in Switzerland, as well as broadening the strategy to set up similar ventures in partnership with India and Malaysia.

We also aim to ensure that our research is published in open access sources to increase availability, visibility and use. Robust procedures are in place in CABI to monitor publication outputs and CABI working papers through the Chief Scientist. Our target is to achieve over 100 peer-reviewed publications every year, with more than half published in open access journals and more than 30% in journals with impact factors greater than 2. In 2017–2018, we significantly exceeded these targets, and new targets and other measures of impact will be considered.

We have set up the CABI Scientific Outputs Portal (CSOP) (**www.cabi.org/about-cabi/our-scientists-output/**), which uses a subset of CAB Abstracts to compile bibliographic details of all new publications with abstracts and full text (when permitted). The CSOP now holds 5000 records and will be expanded with CABI's scientific reports, potentially as an internal repository for full text. Between 2017 and 2019, CABI has transitioned to making almost all its first and corresponding author research publications gold open access, and this target will be maintained going forward. Green open access will be encouraged for other co-authored publications.

CABI – China Joint Lab achievements



13. Our people

CABI now employs nearly 500 people in 23 locations worldwide **(see map in Appendix 2).** Nearly half our staff are now based in the southern hemisphere – a significant landmark in the organization's history. Going forward, we expect this distribution to be further advanced because most new hires will be located in our centres in the developing world. We will also seek to move both the overall gender balance and that balance within grades and within centres towards parity.

The work of all our staff is critical to the quality of the products, services and projects that we deliver to customers, donors and beneficiaries. Staff costs comprise over 70% of our operating budget. It is therefore critical to our success that we have a motivated and well-trained workforce with the systems and management support they need to allow them to work effectively and efficiently.

Our HR strategy under the Medium-Term Strategy 2020–2022 will continue to support key success factors across the organization, as follows:

- within the financial capacity of the organization, to ensure that the salary, incentives and benefits package offered by CABI is competitive at the median level with similar organizations in both the public and private sectors
- to continue the growth of skills, experience and capabilities among our existing staff
- to complement this with recruitment of new staff where specific skills, experience and capabilities are required (e.g. gender and climate change)
- to encourage staff to achieve a good work/life balance through implementation of our Stress Policy and by ensuring staff are aware of the Global Employee Assistance Project
- to maintain and regularly review succession and talent management plans covering all senior-level and operationally critical roles
- to keep track of the impact of these changes through the annual staff survey, as well as by exploring issues in more detail

Talent management and succession planning will continue to be reviewed on an annual basis at EMT and Board level. The period covered by this Medium-Term Strategy will be particularly important for the organization as a number of key individuals in our publishing, international development and corporate areas will come up to retirement, including the CEO. The search for a new CEO will be handled by the Nominations and Governance Committee of the Board, commencing at the beginning of 2020.

CABI maintains a set of flexible policies and processes to promote good employee relations and support line managers and staff in people management. We have recently updated our Code of Business Conduct and our Whistleblowing Policy, and we have introduced new policies in relation to safeguarding, modern slavery, bribery and collaborator due diligence. We will also introduce a Code of Management Conduct to set out clearer expectations for the way in which managers in the organization should treat their staff. The appropriateness and impact of these policies will be reviewed during the period of this Medium-Term Strategy, along with a regular rolling review of all our existing policies.

An annual global staff survey to assess staff morale, motivation and concerns will remain a key part of CABI's HR policy. The latest survey (from 2018) showed a generally positive picture, with good staff engagement and large proportions of staff (>85%) saying they are proud to work for CABI, would recommend CABI as an employer, understand CABI's mission and objectives and have confidence in the CEO. We benchmark overall employee engagement against a survey carried out by Aon Hewitt covering more than 1000 organizations. CABI's overall engagement score, at 75%, is unchanged from last year and remains in the upper quartile against the Aon Hewitt average of 65%, as well as against the McKinsey Organizational Health Index. However, there are also areas of concern that will be the focus of further improvement actions within the Medium-Term Strategy 2020–2022.

- **"One CABI"**: although we seek to work as "One CABI", leveraging skills and resources from individual businesses and functions for the benefit of the organization as a whole, only 50% of staff believe that "One CABI" describes the way we actually work. To address this concern, we will take a number of actions to stimulate a dialogue about what "One CABI" means, what gets in the way of delivering it and how we can improve

- **Morale and motivation**: we recognize that managers and how they behave are key to the morale and motivation of their staff. We therefore want to be clear on what we expect from our managers, but also on how we will support them. We have published a "CABI Code of Management Conduct" and have implemented a two-day training module focused on management skills and behaviours. We are also using a behavioural assessment tool to help with team building, and introducing 360-degree feedback for management as part of the mid-year review
- **Stress and wellbeing**: supportive and committed managers are critical to staff wellbeing, and this will also be covered as part of the management skills and behaviours project. We will clarify expectations regarding project staff cover targets (an average of 90% over the year) and promote the CABI Employee Assistance Programme and resources available for support and self-help to manage stress and improve mental health. The reporting of concerns over management behaviour or inappropriate business conduct will be made easier by providing the option to contact an independent reporting service using telephone, mobile app or web reporting tools
- **System improvement**: the need to improve our systems to help staff work more effectively and more efficiently came out loud and clear from the latest survey. The priority is to replace the SAGE time sheet system, but we will also take a "forward look" to prioritize other systems changes and development. In addition, we will make better use of other off-the-shelf systems, for example Salesforce and MyHR, to ensure that they deliver maximum benefit to CABI with minimum hassle to staff
- **Staff communications**: we will review the format of the quarterly CEO Town Hall and review the content of the monthly EMT Brief to explain decisions and their rationale more clearly, and to encourage feedback. We have also introduced Yammer (a private, internal social media channel) as an additional in-house communication tool for staff and will review its acceptance and effectiveness

14. Financial plan

14.1 Resource mobilization

As a self-sustaining, not-for-profit organization, CABI must finance its activities through the sale of its products and services. The objective is to maintain a modest operating surplus while investing in new product development, technology and staff training, as well as supporting the deficit recovery payments related to historic pension commitments from the UK Defined Benefit scheme which has now been closed to future accrual and replaced with a Defined Contribution plan.

In our publishing business, we will seek to conclude negotiations for additional or alternative sales partnerships for our core database and book products. This will free up capacity within our own sales team to pursue business development opportunities for income growth through expansion into new and adjacent audiences for future products and services.

The funding environment for CABI's International Development Business Unit work is becoming increasingly challenging. Donors want more value for money and greater accountability for delivery. An increasing proportion of funding is being channelled via regional or country desks in the form of grants and loans direct to national governments. This will require us to build upon existing relationships with key donors and core academic customers while broadening our funding base with foundations and the private sector.

We already have a strong Key Account Management programme, but the changing dynamics of donor funding will require us to re-position CABI and key projects in line with this Medium-Term Strategy to address donor priorities (i.e. climate change, youth employment and female empowerment). We will also need to strengthen our Key Account Management approach both at headquarters and in-country. Key Account Managers will receive support from local Regional or Country Directors to engage with donors/partners to secure additional funding. These efforts will be more tightly integrated into the objectives of Regional and Global Theme Directors.

CABI has gradually built a portfolio of pilot projects and consultancies with the private sector, but the total funding from this source remains small in comparison to that from major donors. This largely reflects the way in which budgetary allocation and authorization work in the private sector, with relatively small amounts of money made available on an annual basis. Nevertheless, once trust is established, contracts are often rolled over annually so that cumulative funding can become significant in the long term. The "private sector" is also far from homogeneous, ranging from small local enterprises to global multinational corporations. Overall, private sector partners will continue to grow in importance, particularly to ensure scale-up and ongoing sustainability of initiatives. However, we will need to approach them differently from donors or foundations. A highly specific, targeted approach and a focus on how partnership with CABI will benefit their bottom line are essential for success.

Foundations and private trusts are becoming more interested in agriculture as they recognize it to be an important driver of overall economic development as well as a focus for interests that impact on youth, gender or climate change targets. CABI has had a long-term engagement with the Bill and Melinda Gates Foundation and has begun new projects funded by the Bosch and Rockefeller Foundations as a result of SciDev.Net. There are significant opportunities with a wide range of foundations, but the engagement process is very different from that for governments or the private sector, requiring dedicated staff who become involved in the co-creation of projects with a focus on the big picture and impact. Additional resources will be applied in this area as part of the Medium-Term Strategy.

14.2 Financial projections for 2020–2022

Net Revenue

In the second half of 2019, additional funding for the core CABI programmes was agreed with DFID and DGIS for the period to 2021 and we are well advanced in discussions to secure income for CABI's new Global Programme from the European Union. We will therefore begin 2020 with 100% of core programme funding secured, which was not the case at the start of 2019. Nonetheless, the critical financial challenges for CABI remain: the requirement to find £1.6m of pension deficit funding per year (growing 5% annually), flat (or declining) publishing revenues, a need to drive product development with relatively limited funds and an ongoing requirement to secure the necessary donor funded project income.

Overall, a 4% growth in revenue is budgeted in 2020, the primary driver being the additional donor funding in international development (most of which is secured, or close to being secured) for Plantwise, Action on Invasives and the new global programme in Crop health. For Knowledge Business, there is some growth anticipated in project income, with publishing sales in total staying relatively flat – continuing the recent pattern – and with new product sales (like PestSmart) budgeted to have only a relatively modest sales impact over the next three years.

Net Revenue (£'000)	Actual 2018	Forecast 2019	Budget 2020	Plan 2021	Plan 2022
Knowledge Business	14,049	12,266	12,605	12,956	13,225
International Development	18,002	17,307	18,906	19,302	19,733
Corporate	3,081	3,878	3,346	3,505	3,694
Net Revenue	35,132	33,450	34,857	35,763	36,652
Growth % p.a.	5%	(5)%	4%	3%	3%

Operating Surplus

Against this backdrop, the budget/plan for 2020–2022 assumes a relatively modest growth in operating surplus from a forecast of £51,000 in 2019 to £305,000 in 2022, despite a number of negative factors (most notably the increase in deficit funding for the UK Defined Benefit Scheme). To compensate for this, expenditure will be reviewed to ensure that indirect costs remain relatively flat year on year. Within that cost envelope, we continue to provide some investment in new products, and have set aside £200,000 in restructuring to allow cost savings to be secured. Depending on the income generated in 2020, further restructuring funding may be required to secure further cost savings in 2021 and 2022.

For the business units, there is growth in the contribution in the KB (from a forecast of £4,025,000 in 2019 to £4,379,000 in 2022), which arises from the modest increase in project and publishing revenue. Expenditure on new products will rise to circa £500,000 p.a. by 2022. For international development, a step change in profitability is budgeted (from £565,000 in 2019 to £880,000 in 2020) driven by a combination of indirect cost management and the income generated from the increased revenue in core CABI Programmes.

For the Regional Centres, project work is increasingly focused on the Centres in Africa, Pakistan and in Europe, which means the financial viability of some other Centres (notably in India and Brazil) is increasingly coming into question. Action to reduce costs in these areas forms part of the plan.

Operating Surplus (£'000)	Actual 2018	Forecast 2019	Budget 2020	Plan 2021	Plan 2022
Knowledge Business	4522	4025	4236	4290	4379
International Development	136	565	880	885	892
Corporate	(4228)	(4538)	(4912)	(4918)	(4966)
Operating Surplus/(Deficit)	430	51	204	257	305
Growth % p.a.	(6)%	(88)%	300%	26%	19%

Cash

For cash and the building of reserves, the most immediate objective is to manage liquidity carefully until we exit the existing Wallingford building in May 2020 and receive the final £6m tranche of funding from CALA homes. The Wallingford property aside, we have continued to incrementally build cash reserves in excess of £3m (excluding property), although a clearer picture of the extent of the cash reserve will emerge once the property transactions relating to the redevelopment have unwound. A flexible loan facility has been agreed with Barclays Bank to manage liquidity during the final six months of the construction period.

Note that any property related revaluations or one-off profit/(loss) on sale of property at Wallingford (and, potentially, at Egham) have been excluded from the operating surplus figures shown above.

15. Risk management

Strategic risks to CABI are reviewed by the EMT and the Audit and Risk Committee of the Board on a quarterly basis. The Board considers and agrees overall risk appetite for the organization on an annual basis as part of the budget approval process. At the level of individual projects and investments, risk factors and mitigating activities are reviewed by the Programme Management Group (a sub-committee of the EMT) at the development stage and then at checkpoints throughout the life of the activity.

The latest Risk Heat Map is included below, showing that the main risks remain the pension fund, publishing income and property. Overall, relative to the Medium-Term Strategy 2017–2019, the risk profile of the organization has shifted towards greater impact and likelihood of occurrence of the key risks.

The most significant risk is the UK Defined Benefit Pension scheme. The latest formal valuation (2017) shows that the pension deficit has increased to £79.6m based on the funding assumptions used. The primary driver of that increase is the significant decline in UK government bond yields, which is a by-product of economic policy and the broader financial environment, although other factors such as the increase in life expectancy have also contributed. A recovery plan has been agreed with the Scheme Trustee and submitted to the Pensions Regulator. Management of this situation and the development of plans to obtain greater financial support from Member Countries will be a high priority for the Board and EMT over the duration of the Medium-Term Strategy 2020–2022.

Property risks have now been significantly reduced by the approval and commencement of redevelopment at Wallingford, while consideration of options to relocate the Egham activities with other partners to a new consolidated site is progressing. The risk in Publishing revenues remains fairly stable as these have continued to grow slowly, but the operating surplus from this business has increased by 10% as a result of efficiency improvements.

An ongoing challenge is the threat of cybersecurity breaches, and the IT team continues to ensure that our software defences are as up-to-date as possible, while making sure staff have a high level of awareness about cybersecurity risks, reinforced through compulsory annual online staff training. Performance, including compliance with the General Data Protection Regulations, is reported quarterly to the Audit and Risk Committee.

	Impact				
Likelihood	**Low**	**Low/Med**	**Med**	**Med/High**	**High**
High					1
Med/High			6	2	
Med			5 8	4 3	
Med/Low					7
Low					

Risk

Risk 1: Pension – increasing size of deficit

Risk 2: Loss of publishing revenue and profit, whether due to general market and funding pressure, competition or changing information delivery channels

Risk 3: Long-term funding of Plantwise and other major programmes

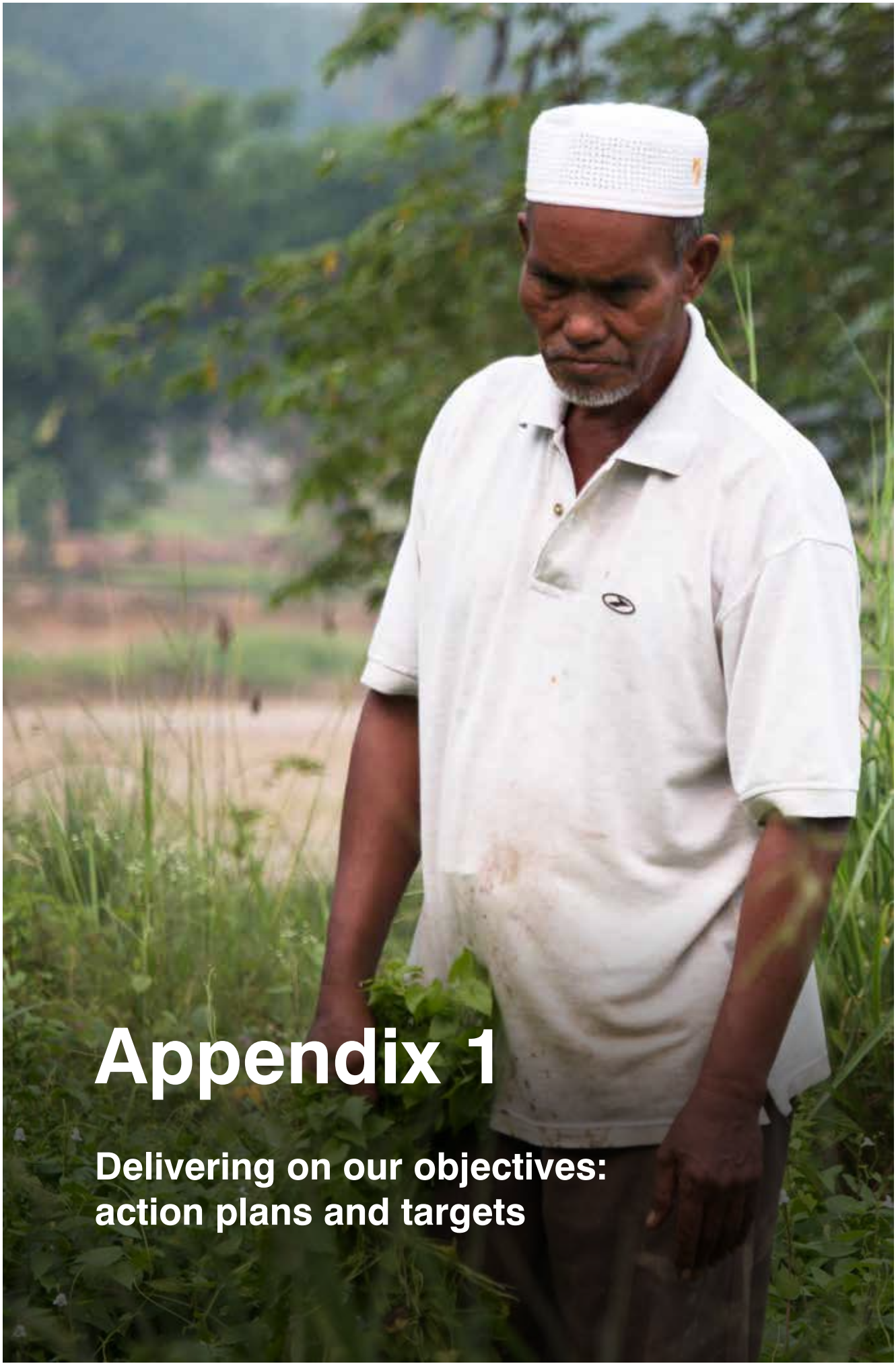
Risk 4: Loss of donor income

Risk 5: Staff retention morale and security

Risk 6: Property, including VAT and financial risk, and staff motivation impact

Risk 7: Loss of reputation and its impact on funding and revenue – with the upside of business growth if we grow our reputation

Risk 8: Cybersecurity – failure to protect IT systems and data



Appendix 1

Delivering on our objectives: action plans and targets

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
1	**Gender incorporated from the outset in project development, planning and implementation** 	› Carry out gender analysis (including an understanding of local context and needs) for all development projects, and develop action plans to ensure gendered implementation › Incorporate gendered approach in project background and technical approach › Ensure gendered baselines are produced and that the project workplan and budget allow for gendered activities, e.g. separate meetings for women and men › Undertake research to identify barriers to entry, participation, competitiveness and knowledge uptake for women, youth and marginalized groups	✔ Initial project analysis done by Q2 2020 ✔ Action plan Q2 2020 ✔ All Level 1 development projects to have gender analysis and gendered approach in proposals Q4 2021 ✔ 3 research studies completed by Q2 2022
2	**Gendered measurement of outputs and outcomes reported widely, with sharing of results and lessons learnt** 	› Ensure gendered results measurement, analysis and reporting based on gender analysis and gendered workplans › Provide evidence of outcomes and impacts for women, young people and marginalized groups, and use findings to develop and refine future work › Ensure gender is prominent in external communication and marketing › Publish, share and promote academic and development research findings on inclusive approaches at national and international events and in the academic sphere, widening the debate and creating further opportunities for change › Use findings and lessons learnt to engage with decision and policymakers to include and implement age and gender considerations as part of national policies	✔ All Level 1 development project incorporate gendered measurement and reporting by Q4 2022 ✔ 2 research studies completed by Q4 2022, providing evidence of outcomes and impact of our work for women ✔ 2 gender focused research papers published by Q4 2022 ✔ 2 policy briefs published with gender as a critical part of their recommendations by Q4 2022

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
3	**Evolve current core programmes to promote sustainability and climate resilience of agricultural system** 	› Build on CABI's role within Plantwise and the African Soil Health Consortium as a climate adaptation and mitigation partner in sustainable agriculture › Build CABI's own core expertise in climate change to ensure that adaptation and mitigation strategies are reflected in all its major projects/programmes › Encourage agricultural diversification by promoting nutritious indigenous crops (particularly fruits, vegetables, grains and pulses) that are better adapted to changing climatic conditions › Strengthen the capability of extension systems to promote ICM approaches and the uptake of climate-responsive approaches and technologies by farmers (including climate-smart pest management, responsible use of agricultural inputs, improved soil management and use of quality seeds) › Implement climate-smart crop production, post-harvest and processing technologies	✔ Relevant programmes classified as 'significant' or 'principal' contributors to climate adaptation and mitigation under OECD-DAC Rio Markers (Q4 2021) ✔ At least 3 climate change adaptation projects implemented, with a specific focus on agricultural diversification and/or climate-resilient value chains (Q4 2022)
4	**Data-driven pest prioritization, monitoring and management systems using new technologies and processes** 	› Introduce smarter ways of predicting and detecting threats to plant health and use these for targeted and cost-effective interventions for prompt response › Develop and/or apply innovative pest surveillance systems as an important first line of defence against both endemic and emerging pests › Establish or improve data-driven processes and workflows that will enable effective prioritization of pest risks and the responses to them	✔ Coordinated pest preparedness, prevention and management informed by decision support tools (HST & PRA Tool) tested in 12 countries (Q4 2022)

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
5	**Uptake of diverse crops and good agricultural practices to increase the supply of safe and nutritious food** 	› Promote the global diversification of agriculture to improve the nutritional value and climate resilience of the crops grown, with particular emphasis on fruits, nuts, vegetables, pulses and indigenous crops › Work with local partners to increase market demand for safe food, providing an incentive for farmers to use low-risk plant protection products as part of good agricultural practices, which can be adhered to through basic voluntary standards › Develop appropriate tools to enable evidence-based decision-making on interventions for different stakeholders, including farmers, to deal with plant health problems › Create effective feedback mechanisms as part of quality assurance so that best practices are being followed by all actors throughout the value chain › Facilitate plant health management through the support of advisory services, specifically through creating expanded networks of diverse service providers in agricultural value chains equipped with digital tools	✔ Supply of safe farm produce as a result of uptake of GAPs evaluated in 20 countries (Q4 2022) ✔ Digital platform for housing decision support and diagnostic tools developed and tested for use to support implementation of GAP standards (Q4 2021)
6	**Reduce and remove greenhouse gas emissions where possible** 	› Work with relevant stakeholders (public and private) to overcome bottlenecks in the access to effective, low-risk (low toxicity) pest control products by targeting farmers and agro-input dealers, input supply chains and regulatory authorities › Provide information to help farmers make precise, timely and well-dosed application of fertilizers and plant protection products › Encourage farmers to adopt cropping systems which increase retention and sequestration of carbon (e.g. tree crops) › Develop and promote use of procedures that facilitate registration processes for low-risk plant protection products, including biopesticides › Collaborate with local entrepreneurs to establish low-tech production of biological control products to increase access to these products by farmers. The initiative will also create employment opportunities for local communities in the associated supply chains	✔ Market share of low-risk pest control products increased as a result of new registrations demonstrated in 10 countries (Q2 2022) ✔ Safe agricultural production practices as a result of promotion by service providers improved in 20 countries (Q4 2022)

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
7	**Sustainably increase agricultural productivity and incomes** 	› Build the capacity of value chain actors – including women and youth (especially as producers and intermediaries) – to respond to market demands, with an emphasis on the use of digital technologies to create employment › Disseminate improved, climate-resilient production and productivity-enhancing innovations and approaches, including ICT › Support climate adaptation and reduce the environmental impact of farmers growing cash crops (e.g. coffee, cocoa, cotton, coconut, spices) through the adoption of improved varieties and good agricultural practices › Inform and support post-harvest processing and value addition (to sustain or enhance product quality including nutrition) through infrastructure development and training on loss reduction, packaging and handling, cold storage, etc. › Evaluate the adoption and impact (social and/or technical) of improved innovations and approaches	✔ At least 1000 value chain actors (including farmers) trained on sustainable production of quality products (Q4 2022) ✔ At least 300 private and public sector officers trained on effective SPS systems (Q4 2022) ✔ At least 3 case studies undertaken on the impact of current and past value chain and trade projects (Q4 2022)
8	**Develop vibrant value chains and trade linkages to support economic development in target countries** 	› Develop a standard framework for implementing a value chain programme approach to guide collaboration with partners › Promote and share CABI expertise in value chains at regional and international platforms › Engage with financers, private sector and strategic partners to support the development of the value chains and trade business › Engage with CABI Member Countries and others to implement relevant national or regional policies related to trade › Strengthen the capacity of regional bodies (e.g. AU) to implement their regional trade agreements, while complying with WTO agreements e.g. SPS, Technical Barriers to Trade and Trade Facilitation	✔ A generic value chain and trade framework for use in any value chain developed (Q1 2020) ✔ At least 10 major projects developed and implemented in at least 5 countries in Africa and Asia (Q4 2022)

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
9	**Enable equitable and inclusive agribusiness growth through activities specifically focused on women and youth** 	› Broaden participation in equitable economic growth through the inclusion of youth and women in climate-resilient supply chains › Focus on changing the mindset of smallholder farmers from subsistence to income generation, and shift perceptions of farming from drudgery to opportunity › Develop campaigns that address the constraints of engaging youth and women in agribusiness, including investment mobilization and supporting community-level organization › Advocate for changes to the enabling environment, including the policy context, to support inclusive and equitable growth › Support mobilization of private sector partnerships and investment	✔ At least 3 annual research briefs, presenting evidence to guide impact investors in investments that facilitate the participation of smallholders in agribusiness leading to increased incomes ✔ Practical implementation guide developed for categorizing and describing business models for agribusiness-based advisory services (Q2 2020)
10	**Strengthen policies, plans and capabilities to enable more effective country responses to the threat of invasive species** 	› Develop and implement cross-sectoral and inclusive national invasive species strategies and action plans, ecosystem management plans and biosecurity plans › Strengthen regulatory frameworks for the prevention and management of invasive species › Facilitate national and regional cross-sectoral cooperation on invasive species, building on the achievements of the Plantwise programme › Maintain and further develop knowledge and information resources and tools to support decision-making	✔ National strategies/plans developed/ implemented in at least 6 countries (Q4 2022) ✔ Cross-sectoral cooperation on invasive species in at least 10 countries and at least 3 regions/ regional bodies (Q4 2022) ✔ At least 100 new resources (factsheets on the ISC, manuals, guides) published (Q4 2022)

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
11	**Increased awareness of the risks and costs of invasive species, leading to greater investment in their control** 	› Implement and evaluate communication campaigns targeting stakeholders affected by invasives and who have a role to play in their prevention and management › Develop and apply methods for assessing and communicating the risks and costs of invasive species, including high quality publications › Strengthen the areas of monitoring and evaluation, gender and diversity, and the management and analysis of big data sets in assessing and communicating the risks and costs of invasive species under different climate change scenarios	✔ At least 15 species/country communication campaigns and 5 campaign evaluations in total (Q4 2022) ✔ At least 20 open access relevant publications on risks/costs of invasives (Q4 2022)
12	**Promote more effective prevention and management of invasive species incursions** 	› Undertake collaborative research on improved methods for the prevention, early detection and rapid response to new incursions and management of existing species › Provide diagnostic services, distribution data and other targeted information needed by stakeholders to act against invasive species › Promote the implementation of biological control and other low-risk methods for integrated management of invasive species	✔ At least 50 target invasive species researched (Q4 2022) ✔ At least 8 new releases of biocontrol agents facilitated (Q4 2022)
13	**Expand the evidence base to support projects building on prior learning and experience** 	› Expand the evidence base for what works, contribute to efficient use of resources and ensure that CABI's work is informed by realities on the ground › Base project development on learning from the dialogue with local stakeholders, including farmer communities › Explore opportunities for research that improves communication practice and builds our understanding of social and behavioural change › Generate supporting resources for use by governments, farmer organizations and CABI partnerships to strengthen development communication practice in various contexts	✔ At least 3 documents outlining evidence and learning from our DCE programmes annually ✔ At least 1 annual impact study implemented and findings published and/or integrated into ongoing programmes

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
14	**Design innovative blended communication campaigns to optimize reach and impact with target audiences** 	› Use multiple communication channels and formats to achieve the optimal balance between maximum reach and the likelihood of sustained impact › Invest in research processes to better understand project environments, including local knowledge, customs, perceptions and institutions › Segment audiences by mapping different media use and literacy within the household › Design campaigns based, in part, on the level of urgency for action required: from early warning and emergency response to maintaining good agricultural practices › Combine emerging digital technologies with face-to-face approaches to achieve a balance between sustainability (by mobilizing local resources) and scale (by leveraging the right mix of modes)	✔ At least 50,000 farmers reached annually per country through targeted campaigns that address objectives from early warning, climate resilience, innovation uptake and good agricultural practices (Q4 2022)
15	**Improve access to knowledge, information and evidence on nutrition, plus climate change adaptation and mitigation** 	› Enhance stakeholder access to (and the use of) information in making management decisions to reduce the risks, and to benefit from the opportunities, of a variable and changing climate › Contribute to capacity-building and awareness-raising of extension workers, researchers, lecturers and policymakers, including the joint development of curricula, training material, policy briefs, etc. › Capitalize on CABI's expertise in the development of information resources and ICT-driven tools to disseminate actionable advice to multiple stakeholders across broad geographical scales to facilitate large-scale adoption of climate-resilient agriculture and landscape management approaches › Increase the commissioning and publication of climate change-related publishing products to support the capacity for innovation	✔ CABI knowledge products and services enhanced with climate-literacy elements (Q4 2021) ✔ Selected Plantwise and AoI content reviewed to include climate-smart dimension (Q4 2020) ✔ Develop at least 1 new ICT-based product to cover climate resilience (Q4 2022)

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
16	**Use participatory content development, working with local, national and regional partners who have the skills and knowledge to inform the development of audience-focused materials** 	› Draw on local resources and expertise to deliver at scale and support farming communities to access and engage with scientific knowledge › Partner with existing local organizations to support delivery, specifically: • **content partners** with proven technologies or practices to share – including indigenous knowledge • **value chain partners** to ensure sustainable supply chains for the required inputs and market opportunities for produced outputs • **delivery partners**, using proven media and pathways to engage farmer communities • **learning partners** to support research around effective communication › Support mutual capacity development and learning with partners in campaign delivery › Cultivate strategic alliances with development communication and digital development partners from appropriate sectors (but not necessarily only from agriculture)	✔ Content developed and adapted for at least 2 delivery channels in each campaign during implementation in Objective 11 (Q4 2022) ✔ At least 2 strategic alliances with development communication partners ✔ Partners contribute to learning documents as a result of campaign implementation (Q4 2022)

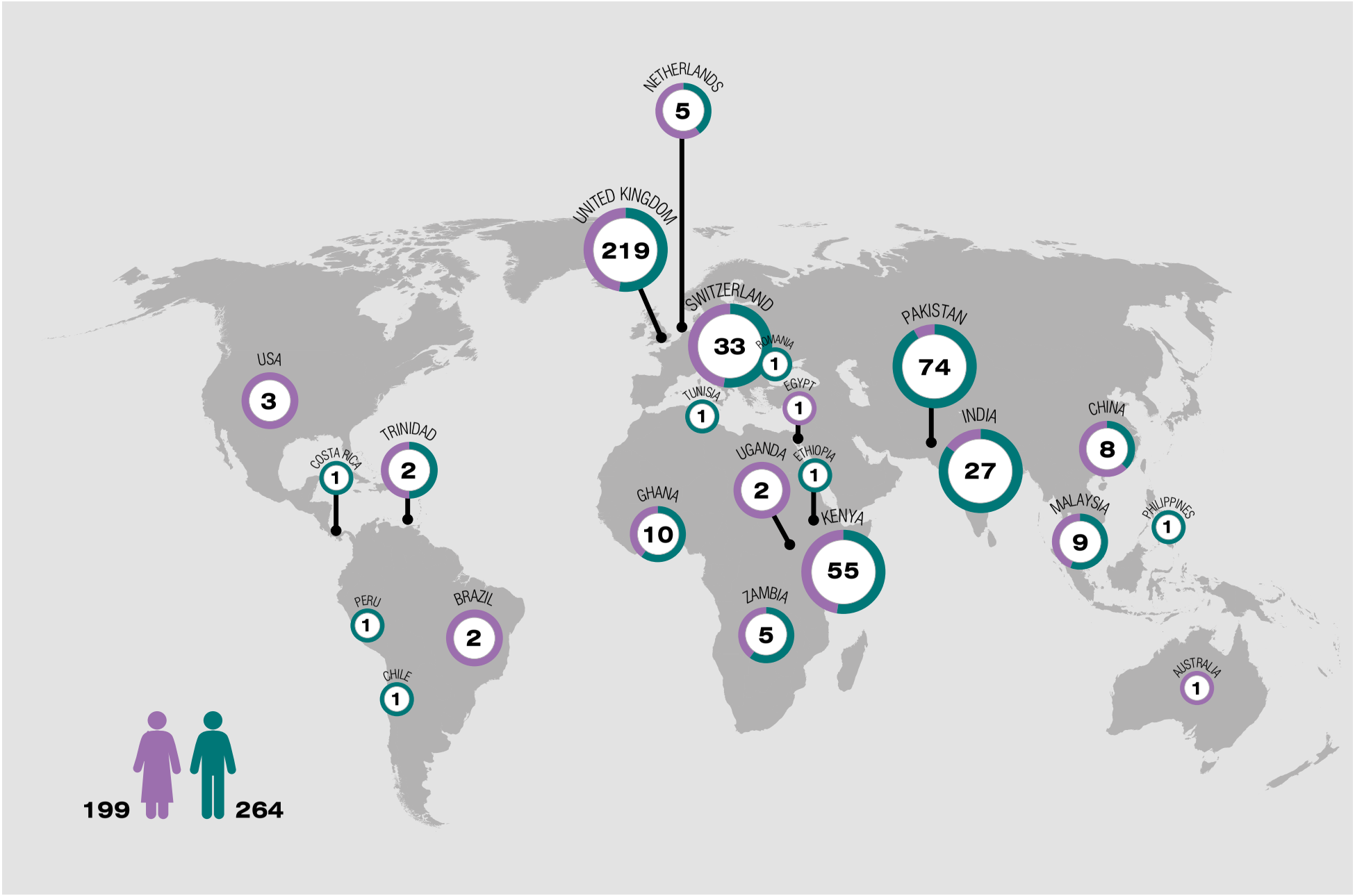
	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
17	**Develop decision support tools to help users translate data and information into positive action and impact on crop health** 	› Develop information resources and digital decision support tools to help stakeholders make sound decisions on the basis of scientific evidence › Automate the generation of tailored insights using data, earth observation and spatial and predictive modelling › Provide users with easy to understand insights and specific practical advice › Focus on areas of demand linked to CABI key programmes and skills, particularly the following: climate adaptation; market access; ecosystem management; surveillance, pest risk and early warning; and digital or digitally-supported agricultural advisory services	✔ Assess CABI's data skills and holdings to identify key opportunity areas (Q1 2020) ✔ Launch the Global Burden of Crop Loss initiative in the International Year of Plant Health (Q4 2020) ✔ At least one major initiative focused on geospatial data started (Q4 2021)
18	**Co-develop solutions with end users that are context-specific, appropriate and meet their needs** 	› Co-design tools with end users to ensure that the solutions address the specific needs, context and expectations of the people who will use them › Ensure appropriate representation of stakeholders in the process. Where this requires special measures (e.g. a women-only focus group), we will budget and plan for this › Develop our innovations through iteration and experimentation, working with users to repeatedly test and adapt tools to ensure that they meet user needs effectively › Show funders the value of digital tools in improving information quality and access, as well as the economic and social value of access to that data for specific applications, e.g. for developing accurate farmer digital services	✔ All digital development initiatives make appropriate use of human-centred design principles and take an iterative and learning-focused approach (Q4 2022) ✔ Formally adopt the Principles for digital development (Q4 2020)

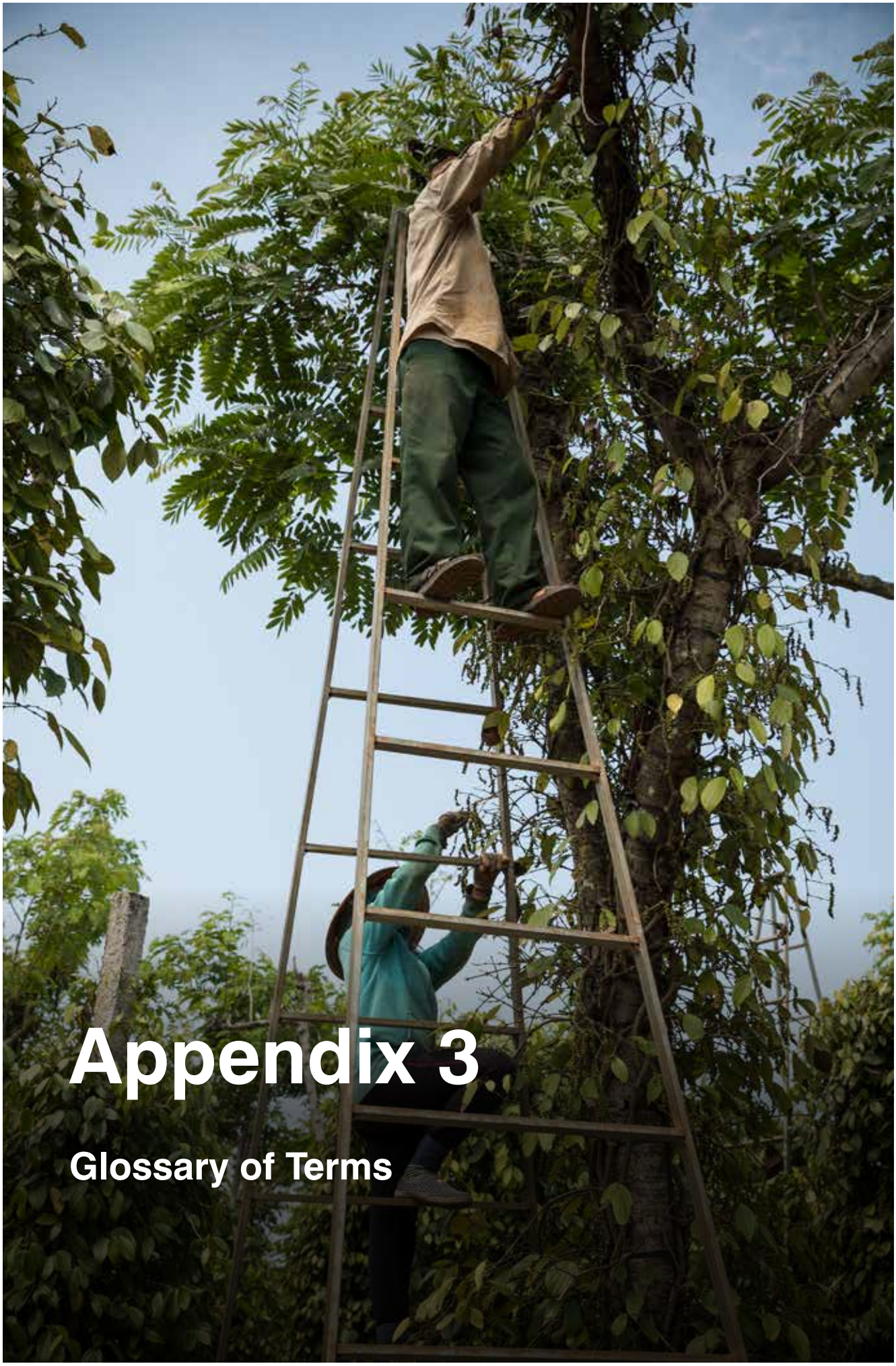
	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
19	**Maximize reach and impact of digital solutions by designing for inclusivity, interoperability, sustainability and scale** 	› Include context-specific gender analysis in the design process › Understand factors inhibiting access (e.g. differences in mobile phone ownership or digital skills); plan and budget to mitigate them › Identify and support champions that can help drive uptake. For example, youth are often more digitally literate and likely to be early adopters of digital tools. They may help less tech-savvy members of their communities to use digital tools, or may pass along information they obtain via digital channels › Plan for sustainability from the start, including defining what sustainability means for any given tool and identifying an appropriate business model and long-term vision › Work in partnership, ensuring that digital solutions are embedded in stakeholders' systems and mandates › Design for scale and make choices that encourage widespread adoption, with particular attention to affordability and accessibility by the population at large	✔ A checklist developed (Q1 2020) to ensure that all digital development projects design for inclusivity, interoperability and scale, for use by project managers (Q4 2022) ✔ All projects with IT development components involve close collaboration between project teams and IT on context-appropriate technology choices (Q4 2022)
20	**Provide products, analytics and tools to support open science, increase research productivity and promote evidence-based agriculture** 	› Launch an open access journal (CABI Agriculture and Bioscience) in 2019 as the first in a possible portfolio of titles › Research the potential for open preprint, repository and data indexing services in agriculture › Develop tools and databases to synthesize evidence at scale and drive evidence-based agricultural policy and practice guidelines › Investigate the development of Agricultural Research Analytics services to enhance strategic decision-making at the institutional and funder level, and the creation of researcher-focused funding/collaborator/journal-finder services › Ensure our databases provide better coverage of agriculture than the larger competitors, and significantly increase their full-text coverage via licensing and open access content › Investigate the future applications of artificial intelligence and machine learning to enhance database coverage and functionality	✔ Launch journal Q1 2020. Subject to performance, aim for 3 additional titles by 2024 ✔ Research open science, evidence synthesis and research analytics opportunities with "go/no go" decisions (Q4 2020) ✔ Benchmark CAB Abstracts against competitors (Q4 2020)

	OBJECTIVE (with SDG linkage)	ACTION PLANS	TARGETS/MEASURES
21	**Build an e-learning curriculum that helps practitioners and students acquire vital knowledge and skills** 	› Develop core curriculum of role-specific e-learning modules linked to a content library of existing CABI information in agriculture and livestock management aimed at farmers, students, plant doctors, agri-advisors and managers › Broaden skills development to include "functional skills" (literacy, numeracy and ICT) and "business skills" that will allow farmers, sole-traders and company employees to be more effective in their roles › Focus on low-income countries where agricultural skills development is a clear priority for donor funding, a strong component of the country's economic and industrial strategy and 'adjacent' to significant existing CABI business › Tap new sources of donor funding for skills development and capacity-building, and over time generate sustainable commercial sales to governments, private organizations and higher/further education institutions in middle and high-income countries › Explore certification and local partnership opportunities to maximize credibility and legitimacy	✔ Core curriculum for 3 priority job roles mapped (Q1 2020) ✔ Business development plan for East Africa, Australia and Pakistan created and implemented (Q4 2020)
22	**Develop practical tools and services based on reliable research and data** 	› Develop CABI's existing Compendia with the addition of environmental, climate adaptation, agri-input, food safety and nutritional information › Build a Biopesticide Portal to promote uptake and knowledge of biocontrol methods by extension workers and farmers, and explore opportunities to develop other databases of agri-inputs and technologies › Launch a Plant Pest Distribution Database and develop risk assessment and forecasting tools and services › Explore commercial funding, licensing and partnership opportunities to develop digital advisory and decision support tools	✔ Compendia growth strategy, including data-driven tools, scoped by mid-2020 with a target of £1m in revenue (Q4 2022) ✔ Biopesticide Portal launched (Q1 2020)

Appendix 2

CABI's worldwide presence


NETHERLANDS
5
UNITED KINGDOM
219
SWITZERLAND
33
ROMANIA
1
TUNISIA
1
EGYPT
1
USA
3
TRINIDAD
2
COSTA RICA
1
PERU
1
BRAZIL
2
CHILE
1
GHANA
10
UGANDA
2
ETHIOPIA
1
KENYA
55
ZAMBIA
5
PAKISTAN
74
INDIA
27
CHINA
8
MALAYSIA
9
PHILIPPINES
1
AUSTRALIA
1
199
264



Appendix 3

Glossary of Terms

Appendix 3: Glossary of Terms

ACIAR	Australian Centre for International Agricultural Research
AfDB	African Development Bank
AFAAS	African Forum for Agricultural Advisory Services
AGRA	The Alliance for a Green Revolution in Africa
AIR	American Institute of Research
AIRCA	Association of International Research and Development Centres for Agriculture
AoI	CABI's Action on Invasives Programme
AU	African Union
BCI	Better Cotton Initiative
CABI	Centre for Agriculture and Biosciences International
CCAFS	Climate Change, Agriculture and Food Security
CGIAR	The Consultative Group for International Agricultural Research
COMESA	Common Market for Eastern and Southern Africa
CSOP	CABI Scientific Outputs Portal
DCE	Development, Communication and Extension - one of CABI's Themes (formerly Knowledge for Development, KFD)
DD	Digital Development - one of CABI's Themes (formerly Knowledge Management)
DfID	Department for International Development, UK
DGIS Netherlands	Directorate General for International Cooperation, Dutch Ministry of Foreign Affairs
EAP	CABI Employee Assistance Programme
ECOWAS	Economic Community of West African States
EMT	CABI Executive Management Team
ExCo	CABI Executive Council
FAW	Fall Armyworm
GACSA	Global Alliance for Climate-Smart Agriculture
GAP	Good Agricultural Practices
HR	CABI Human Resources Department
ICM	Integrated Crop Management
ICT	Information and Communications Technology
ID	CABI International Development Business Unit
IPM	Integrated Pest Management
ISC	Invasive Species Compendium
KB	CABI Knowledge Business Unit
KPIs	Key Performance Indicators
MC	CABI Member Country
MEL	Monitoring & Evaluation Portal
MTS	CABI Medium Term Strategy
NARS	National Agricultural Research System
PPF	The UK Pension Protection Fund
PW	Plantwise
PWKB	Plantwise Knowledge Bank
RDs	CABI Regional Directors
RCT	Randomized Controlled Trial

RUFORUM	The Regional Universities Forum for Capacity Building in Agriculture, Africa
SADC	Southern African Development Community
SDGs	UN's Sustainable Development Goals
SDN	SciDev.Net
SIDA	The Swedish International Development Agency
SPS	Sanitary and Phytosanitary
STDF	Standards and Trade Development Facility
TBT	Technical Barriers to Trade
TF	Trade Facilitation
TPR	The Pensions Regulator
UNFCCC	United Nations Framework Convention on Climate Change
VfM	Value for Money
WTO	World Trade Organisation

Contact us

Africa

Ghana
CABI, CSIR Campus
No. 6 Agostino Neto Road
Airport Residential Area
P. O. Box CT 8630, Cantonments
Accra, Ghana

T: +233 (0)302 797 202

E: westafrica@cabi.org

Kenya
CABI, Canary Bird
673 Limuru Road, Muthaiga
PO Box 633-00621
Nairobi, Kenya
T: +254 (0)20 2271000/20

E: africa@cabi.org

Zambia
CABI, 5834 Mwange Close
Kalundu
PO Box 37589
Lusaka, Zambia

E: southernafrica@cabi.org

Americas

Brazil
CABI, UNESP-Fazenda Experimental Lageado, FEPAF (Escritorio da CABI)
Rua Dr. Jose Barbosa de Barros 1780
Fazenda Experimental Lageado
CEP:18.610-307
Botucatu, San Paulo, Brazil

T: +5514-38826300

E: y.colmenarez@cabi.org

Trinidad & Tobago
CABI, Gordon Street, Curepe
Trinidad and Tobago

T: +1 868 6457628

E: caribbeanLA@cabi.org

USA
CABI, 745 Atlantic Avenue
8th Floor, Boston,
MA 02111, USA

T: +1 (617) 682-9015

E: cabi-nao@cabi.org

Asia

China
CABI, Beijing Representative Office
Internal Post Box 85
Chinese Academy of Agricultural Sciences
12 Zhongguancun Nandajie
Beijing 100081, China

T: +86 (0)10 82105692

E: china@cabi.org

India
CABI, 2nd Floor, CG Block,
NASC Complex, DP Shastri Marg
Opp. Todapur Village, PUSA
New Delhi – 110012, India

T: +91 (0)11 25841906

E: cabi-india@cabi.org

Malaysia
CABI, PO Box 210,
43400 UPM Serdang
Selangor, Malaysia

T: +60 (0)3 89432921

E: cabisea@cabi.org

Pakistan
CABI, Opposite 1-A,
Data Gunj Baksh Road
Satellite Town, PO Box 8
Rawalpindi-Pakistan

T: +92 (0)51 9290132

E: sasia@cabi.org

Europe

Netherlands
CABI, Landgoed Leusderend 32
3832 RC Leusden
The Netherlands

T: +31 (0)33 4321031

E: netherlands@cabi.org

Switzerland
CABI, Rue des Grillons 1
CH-2800 Delémont, Switzerland

T: +41 (0)32 4214870

E: europe-CH@cabi.org

UK
CABI, Nosworthy Way
Wallingford, Oxfordshire,
OX10 8DE, UK

T: +44 (0)1491 832111

E: corporate@cabi.org

UK
CABI, Bakeham Lane
Egham, Surrey, TW20 9TY, UK

T: +44 (0)1491 829080

E: microbiologicalservices@cabi.org

E: cabieurope-uk@cabi.org

KNOWLEDGE FOR LIFE