Plantwise is a global programme, led by CABI, which improves food security and rural livelihoods by reducing crop losses.

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Introduction

Plantwise was launched in 2010 in response to a unanimous mandate from CABI’s Member Countries to support them in meeting the challenges of food security and improved rural livelihoods. As a consequence, Plantwise has been shaped by extensive market research into users’ needs in such areas as extension, rural farming, research, plant protection and inspection, and policy-making. Its goal is to enable the development of national and regional plant health systems through an expanding network of plant clinics run by extension providers in developing and transitional countries, supported by the creation of an open access global knowledge bank for plant health.

This publication updates and builds upon the interim donor report published in September 2012. It summarizes the progress made in delivering this programme in 2011 and 2012 and highlights some of the challenges and learning which have taken place so far.

The major donors which contributed to Plantwise during 2011 and 2012 were the Department for International Development (DFID), Swiss Agency for Development and Cooperation (SDC), Directorate General for International Cooperation (DGIS Netherlands), Ministry of Agriculture of PR China, and Australian Centre for International Agricultural Research (ACIAR). We thank you for your support to this significant programme, and welcome our new donors for 2013 – the DG DEVCO-EuropeAid, the International Fund for Agricultural Development (IFAD), and Irish Aid.

Executive Summary

In 2011-12 the Plantwise team at CABI developed the programme’s three interconnected components:

- Plant Clinic Implementation: a steadily growing network of locally run clinics giving advice to farmers on any crop and any problem
- Plant Heath Systems Development: improved collaboration and flow of information between all those actors whose work supports farmers
- Plantwise knowledge bank: an online database of locally relevant plant health data to support plant doctors, researchers and policy makers

Plantwise has grown into a structured programme with guiding strategies and policies on topics ranging from gender to pesticide use to data management. We have created partnership networks aimed at strengthening plant health systems and have begun to deliver an extensive training programme across all target countries. The knowledge bank website was officially launched for use worldwide and the plant clinics have multiplied from an operating base of 80 clinics in nine countries in 2009, to approximately 413 clinics in 24 countries by the end of 2012.

The expansion and evolution of Plantwise is guided by lessons learned within its target countries and across its themes. There has been a tremendous swelling of interest from national partners in the plant clinic concept as an advisory and surveillance tool. This has led to a focus on meeting the demand for training and support in establishing plant clinic networks, whereas greater attention will need to be given to on-going monitoring and quality assurance mechanisms. Another remaining challenge is ensuring that plant clinic data and other valuable information resources provided through the knowledge bank are available and accessible to plant doctors.

Plantwise will continue to scale up (more clinics, more knowledge) and scale out (more countries) its programme to reach our target to support five million farmers in 40 countries by 2016. However, there must be a clear focus on the sustainability of the programme and its components. Going forward with a significant focus on programme outcomes and impact in 2013, monitoring & evaluation will become a more prominent feature of the Plantwise work, facilitating professional development, reflection and analysis of results within CABI and with our partners.
**Additional Programme Highlights**

During the last year we have secured a successful transition from project to programme with the creation of Plantwise implementation teams for each country, country work-plans, activity-based budgets, targets, and agreed reporting in all countries. Plantwise has been monitored throughout the report period against pre-agreed milestones, which have largely been met or exceeded. Specifically, this was achieved through:

**Implementation of a structured approach in which we have:**
- Trained a cohort of 25 CABI staff and associates in the principles and requirements of clinics and in turn how to train plant doctors
- Developed a comprehensive ‘Logical Framework’ of activities and indicators
- Developed a formalized set of standards and ethical guidelines
- Developed M&E and gender strategies to strengthen our independent monitoring & evaluation at the programme-level
- Developed a plant clinic data management strategy and processes, successfully trialled across Kenya clinics and now with data regularly flowing from three countries
- Published two key papers, one on analysing plant clinic data in Uganda and the second one on a model for writing fact sheets

**Delivery of an extensive training programme in target countries:**
- Revised Plantwise training Modules 1, 2 and 4 based on thorough testing (Module 3 currently under review)
- Conducted Module 1 training in at least 20 countries for 585 plant doctor trainees
- Conducted Module 2 training in at least 15 countries for 435 plant doctor trainees
- Facilitated the establishment of at least 204 new plant clinics (413 in total)
- Conducted Module 3 training in over 15 countries, leading to the development of 255 new, validated factsheets
- Trained 46 data managers for plant clinic data collection and collation in 5 target countries

**Creation of partnership networks at country and regional level:**
- Signed formal Plantwise partnership agreements with partners, primarily national government officials, in at least 14 countries so far (others are in various stages of the approval process)
- Developed Plantwise policies on (1) the recommendation and use of pesticides, (2) the reporting of new pest reports and (3) the exchange and sharing of plant clinic data
- Produced a Directory of Diagnostic Services in India, Pakistan, Afghanistan and Central America to support plant doctors in their sample referrals (further directories are being developed)
- Built a partnership of content owners to develop and launch a comprehensive open access knowledge bank with information on over 2,500 plant pests and 100 crops
- Held Asia and Africa summits in Nepal and Nairobi, with contributions from 16 countries in the public, private and NGO sectors; suggested how ‘plant clinics today’ can become ‘plant health systems tomorrow’

**Launch of the knowledge bank website:**
- Tailored pages for each of the 24 Plantwise countries
- Populated the knowledge bank with over 2,000 factsheets
- Developed simple pest identification tools and created enhanced maps showing pest distribution within the knowledge bank
- Developed simple pest identification tools
- Created enhanced pest distribution maps

**Extended the coverage of the programme:**
- Reached an estimated 280,000 farmers with plant health advice, to reduce their crop losses
- Attracted over 94,000 visits to Plantwise.org and the knowledge bank since the launch of the latter, with over 19,000 from Plantwise countries
- Reached knowledge bank users in 198 countries, including all Plantwise countries
Narrative

Plant Clinic Implementation and Plant Health Systems Development

For a number of Plantwise target countries, 2012 was the first year of implementation. In these, and other early-stage countries, the key objectives were to introduce the concept, to establish partnerships with key national organisations, to train staff of partner organisations to run plant clinics, develop reference materials and handle clinic data, and to establish clusters of plant clinics. Formal partnerships were forged with relevant government departments in the majority of target countries, which is a major step towards realising the institutionalisation of plant clinics in national extension systems. CABI’s implementation teams have established dialogue with the national plant protection organisations in most target countries regarding the collection, sharing and use of field data gathered by plant clinics. The generation of data on current crop problems is one of the key functions of plant clinics, besides delivering immediate advice to farmers; hence, Plantwise is striving to facilitate a greater recognition of the benefits of the data and how it may be used by governments and other plant health system stakeholders.

In the countries with a longer history of plant clinic operation, there was a greater focus on consolidating progress from previous work carried out by the Global Plant Clinic programme funded by DFID. Stronger commitment, greater cooperation and wider collaborations within countries suggest how plant clinics can lead to wider integration of effort and a deeper understanding of how advisory services can serve farmers. There are emerging examples of stronger links between weak national bodies, which strengthens overall plant health systems. Plantwise has witnessed the active engagement of extension and research services, regulatory bodies, education institutions, farmer-based organisations, NGOs and agro-industry in activities that lead to farmers getting the information they need. There are cases of universities showing a great desire to build Plantwise training modules into their education programmes, a strong indicator of institutionalisation and sustainability. In all these countries, the local development of plant clinics by existing organisations has helped to stimulate actions and create initiatives that are contributing to stronger, more responsive and durable farmer support.

Knowledge Bank

Working with feedback from in-country users, the full open access Plantwise knowledge bank website was launched in July 2012, see www.plantwise.org/knowledgebank. The resource focuses on identification, treatment and distribution of over 2,500 key pests with an individual portal tailored for each Plantwise country. A simple, image-based pest diagnosis tool helps plant doctors and others identify pests that are new to them. Targeted management advice is available from linked factsheets, created either through Plantwise activities or by external experts. Interactive maps show where pests are occurring globally or nationally and such data are overlaid with other datasets, such as climate zones, to aid prediction and modelling. More than 200 people have signed up for automatic pest alerts, an encouraging start for an important service benefit.

A full data processing project was conducted in Kenya to collate pest data from all clinics. This proved highly successful and the government is now fully committed to the collection, analysis and use of the data by systems and tools created by the knowledge bank. Plans have been laid to roll out clinic data processing into other countries.

Monitoring & Evaluation

Strategies for M&E and gender were developed in 2012, outlining the basic principles and concepts and a roadmap towards their practical implementation in Plantwise. The logframe was revised in order to strengthen consistency and align the two strategies by including more gender sensitive indicators where possible and relevant. A first set of basic M&E tools and guidelines were developed to ensure that collection of results on outputs and outcomes is harmonised across all countries. The tools are part of a training module on plant clinic monitoring (Module 4), which aims to build monitoring capacity among country partners. Collaboration with the Royal Tropical Institute, Amsterdam (KIT) was established to support research and evaluation work with the Africa team, and to develop additional simple tools for outcome assessments and testing of assumptions. Module 4 underwent substantial revision in 2012 and is now ready for implementation. A series of internal regional M&E workshop was initiated in September as part of an on-going process of learning, capacity building and creation of a work culture based on critical reflection on results and interventions. Four workshops were held with 39 participants representing CABI Country Coordinators and other team members, notably Regional Team Leaders, Global Directors, EU resource staff and knowledge bank staff. A rigorous impact evaluation method was tested in Uganda. A working paper on results and lessons learned is being finalised. INTRAC was contracted to carry out a scoping study as a first step in strengthening CABI’s capacity within M&E and gender.
Lessons Learned

Plant Clinic Implementation and Plant Health Systems Development

The implementation of a standardised Plantwise programme in so many countries with different natural resource bases, variable stages of agricultural development and varied social, linguistic and cultural settings presents some challenges. A key lesson learned is that developing ownership requires sustained engagement and trust building with partners, especially in early stages. While the programme concept has been accepted by all partners in signed agreements, the details of implementation, such as standardised clinic operating procedures and funding transfer mechanisms, require very close attention and follow-up by CABI teams. In general, management of each country programme requires greater involvement of CABI teams to support the necessary capacity building of national counterparts on both a technical and management level. Either the existing CABI teams need to spend more time in-country or CABI must identify others for dedicated local help. Furthermore, increased advocacy effort is required to instigate institutional change and to truly embed plant clinics within existing extension structures. This change requires the reallocation of national resources and incentivising the performance related parameters for staff involved in plant clinic implementation by national institutions.

Much effort was expended on running training courses in 2012, for the establishment of new plant clinics and the development of supporting reference materials (factsheets, pest management decision guides, directories of diagnostic services, etc.). These activities were largely very successful, with plant doctors in many countries describing a need for technical reference materials to support them in their challenging new role. There is still some way to go in strengthening broader ‘plant health systems’ but a majority recognize the benefits of an integrated approach. Initial work was started in some countries to link plant clinics to national and international diagnostic services; however, little progress was made in linking plant clinics to regulation and input supply. Indeed, all of these linkages are necessary to implement a true plant health systems approach.

Quality control mechanisms, at the national system level and within CABI, need to be established for a number of implementation aspects. Plant doctors in Kenya held a number of cluster meetings; however, few countries have progressed to such a level of organisation. In general, there should be greater time allocated to review, analysis and learning. On a more technical level, information resources developed through Plantwise activities are increasingly being subjected to expert review to ensure validity. CABI’s own regional teams sometimes need targeted capacity building to give them the well-rounded skills needed to help country schemes flourish.

Knowledge Bank

The beta version of the knowledge bank proved invaluable in gaining feedback for the development of a full version targeted effectively at the needs of all those entities involved in an integrated plant health system. The knowledge bank is a central resource to store, retrieve, verify, enhance and archive knowledge and data but there is still the need to ensure that content can be disseminated to plant doctors in the field in the most appropriate medium, including mobile. Solutions to this will be investigated in 2013.

Clinic data processing still has many challenges to be worked through that are different to each country. These include: sensitivity of governments to data sharing; incentives for data collection; practicalities of the data management process; variety of languages served; and availability of staff resources, computer skills and equipment in different countries. In the initial stages of data management by partners, Plantwise staff may need to be closely involved to provide technical support and capacity building, working with the in-country infrastructure available, bolstering it where possible.

Monitoring & Evaluation

There are particular challenges that are being addressed in the design of M&E plans and support to the implementing teams:

- The geographical span of the programme and implementing teams
- The nature of the Plantwise interventions (‘supportive’, not ‘controlling’)
- The heavily context specific features of gender, institutional structures and work cultures in partner countries
- The limited M&E and gender capacity in CABI.

In 2012, Plantwise implementation focused mainly on plant doctor training and establishment of plant clinics. Monitoring methods and processes were not considered in great detail from the outset. The M&E workshops helped create clarity and confidence among the country teams to carry out monitoring in a systematic and harmonised way.
Next Steps

Plantwise will continue to scale up (more clinics) and scale out (more countries) its programme to reach our target to support five million farmers by 2016 through the establishment of plant clinics in 40 countries. However, there must be a clear focus on the sustainability of the programme and its components. We see this occurring in part through the development of strong in-country plant health systems supported by regional and national government on the basis of clear evidence gathered through our monitoring & evaluation processes.

Going forward in 2013, the management of the Plantwise programme has been slightly restructured based on the merging of the Plant Clinic Implementation theme with Plant Health Systems Development for all basic in-country implementation work. Furthermore, with a significant focus on programme outcomes and impact from 2013 onwards, the monitoring & evaluation work has been separated from the Plant Health Systems Development theme to become an independent theme within Plantwise.

Plant Health Systems Development

In addition to continuing support, guided by lessons learned to date, in the 24 target countries from 2012, Plantwise activities will be launched in 2013 in Zambia, Malawi, Mozambique, Burkina Faso and Ethiopia through funds primarily raised by DG DEVCO-EuropeAid and IFAD. SDC has allocated additional funding to introduce rice-biased clinics in Thailand for the first time, where CABI will be working with IRRI and the Thai Rice Department. A seventh country scheme, in Brazil, will be initiated without requirement for donor funds, being supported solely by Brazilian government and national institutional investments. This should bring Plantwise to a total of 31 countries by the end of 2013, well ahead of the key indicator set in our inaugural Logframe. Through a combination of clinics and mass extension campaigns, we expect Plantwise to have benefited approximately 800,000 farmers by the end of 2013.

There will be a continued focus on pursuing formal partnerships with key plant health system stakeholders to increase shared commitment and bolster inter-stakeholder linkages. Data management, including data sharing agreements and quality assurance, will be important topics for 2013 to ensure that newly established Plantwise policies are integrated into advisory services. In recognition of the linguistic challenges faced by implementation teams in multiple countries, training materials and information resources will be translated into more languages.

Professional development, reflection and analysis of results within CABI will be on-going, including sympathetic supervision and support to country teams. In addition to on-going training on M&E approaches, staff will be trained on how to carry out plant health rallies, a key component of mass extension approaches, and how to design and support programmes. A review of diagnostic support to plant clinics will be carried out to identify the best ways of linking expert technical resources to farmer and extension needs.

Knowledge Bank

We will enrich the content available through the knowledge bank and support its usage by Plantwise countries as a tool to assist in assessing the evidence-based policy changes needed to improve food security. We will instigate and participate in local workshops to review use of the resource tool, and to inform the evidence-based policy changes needed to improve food security.

We aim to populate the knowledge bank further with more information and data on crop health and crop management for the more than 100 crops already profiled. There will be increased liaison with CABI’s regional teams to ensure that users in each Plantwise country are effectively served. Staff skills in data and knowledge handling will be strengthened in regional centres to provide local CABI back-up. National content will be assembled focusing on practical data such as registered pesticides or crop varieties and the number of farmer factsheets will be increased substantially. Additional market feedback will lead to further website development and plans for new releases. Use of the knowledge bank content by different key users will be promoted, assessed and augmented, and training in data and knowledge processing will be offered. The entire clinic data management process will be trialled in Kenya through 2013. Procedures for clinic data processing and analysis subsequently will be rolled out widely and mobile data capture trialled. Lessons learned shall be acted upon as the data collection process extends into all Plantwise countries.

With the on-going acquisition of a critical mass of data to analyse, and the rights to do so, the knowledge bank must and will focus on the development of data analytics tools. This will enable subscription-based services and consultancy opportunities to be explored, which had been deferred due to donors’ insistence on first developing open access tools to build capacity amongst plant clinics, doctors, and other staff in developing regions.
Monitoring & Evaluation

The regional workshops will continue to be pivotal ‘learning hubs’, where CABI staff meet to reflect on results and lessons learned as well as the strategic direction of the programme. Team self-reviews will be carried out once a year to capture key lessons throughout the programme. International NGO training consultant INTRAC\textsuperscript{1} is being hired to support the strengthening of M&E and gender capacity across the organisation. Further refinement of the Plantwise M&E and gender strategies will continue during 2013 in close collaboration with the knowledge bank. Country level M&E will be strengthened and consolidated through training and backstopping to country teams, and through the development of country specific logical frameworks and a comprehensive toolbox.

Terms of references (ToRs) for external evaluation of Plantwise are currently being prepared with SDC for evaluation activities to be conducted September 2013. In addition, ToRs for external post impact evaluation in selected countries are being prepared in consultation with DFID. Full insights from the evaluation will not be available until 2016. Another external organisation, impact evaluation specialist 3IE\textsuperscript{2}, is being contracted to provide quality assurance, inclusive of the tendering process (which will adhere to EU tendering guidelines). A research programme that complements the external post impact assessment will be established that includes both process evaluation as well as more conventional approaches using experimental designs where possible.

External support will be sought to work with Plantwise staff in planning and implementing rigorous methodologies. An internship programme will be launched in 2013, offering short internships and case studies that will help establish, consolidate and expand country schemes. A peer-reviewed working paper on the Ugandan impact evaluation and at least four peer-reviewed journal articles will be published.

\textsuperscript{1} For more information about INTRAC, please visit http://www.intrac.org/
\textsuperscript{2} For more information about 3IE, please visit http://www.3ieimpact.org/
Annex 1 – Country Reports
Afghanistan

Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
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<tr>
<td>Ministry of Agriculture, Irrigation and Livestock (MAIL), Plant Protection and Quarantine Department (PPQD)</td>
<td>NRO</td>
</tr>
<tr>
<td>Department of Agriculture, Irrigation and Livestock (DAIL), Bamyan and Parwan provinces</td>
<td>LIO</td>
</tr>
<tr>
<td>Agha Khan Foundation – Agency</td>
<td>LIO</td>
</tr>
<tr>
<td>Agriculture Faculty of Bamyan University and Kabul University</td>
<td>Provide diagnostic facilities and support development of resource materials</td>
</tr>
<tr>
<td>PPQD, Agric. Research and Extension department</td>
<td>support development of resource materials</td>
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</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Quick Stats 2012 Cumulative

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<tr>
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<tr>
<td>Factsheets</td>
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Highlights

During the last year (2012) we have:

- Obtained a signed Partnership Agreement/MoU and Data Sharing Agreement with DAIL, Bamyan and Parwan provinces
- 19 plant doctors trained in Module 1 (field diagnosis and running plant clinics) and Module 2 (plant healthcare)
- Facilitated the establishment of the first 14 plant clinics in Bamyan and Parwan provinces
- 10 participants trained in Module 3, leading to the development of 12 new, validated factsheets
- 10 participants trained on pest management decision guides (green and yellow lists)
- Established a data management system, with 4 data managers (2 at provincial level and 2 at national level) trained for collecting, recording, harmonising and validating plant clinic data
- Established an Afghanistan-specific knowledge bank website
- Conducted agro-dealer assessment survey with 186 agro-dealers/shopkeepers
- Linked plant clinics with two national diagnostic facilities (Agriculture Faculty of Bamyan University and Kabul University) for diagnosis of plant health problems

Key lessons learned

- Afghanistan is a post conflict country; security is a major issue and one that will affect logistical and financial running of plant clinics in the near future
- There is a lack of qualified government staff and resources at the district level in each province, which will impede the scale-up of plant clinics in the future
- Communication with MAIL is slow, leading to a lengthy procedure for signing of the Partnership Statement and other agreements
- Data entry software should be translated into local language and should be more user-friendly

Proposed next steps

- Translation of resource material in local language
- Scale-up of plant clinics in other provinces where government staff are available, and further capacity building of previous trained plant doctors
- Capacity building of Data Managers to strengthen the data management system
- Establish an M&E team for plant clinic operational activities
Partnerships

<table>
<thead>
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<th>Partner Name</th>
<th>Role</th>
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<tr>
<td>Bangladesh Agriculture Research Council (BARC)</td>
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<tr>
<td>Bangladesh Agriculture Research Institute (BARI) Department of Agriculture Extension (DAE)</td>
<td>LIO – Anticipates providing resources and technical staff (some plant doctors) for plant clinics</td>
</tr>
<tr>
<td>Sustainable Peoples Initiative for Economic Development (SPIED)</td>
<td>LIO – Runs plant clinics and serves as main communication point for CABI</td>
</tr>
<tr>
<td>Sushilian</td>
<td>LIO – Runs plant clinics</td>
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</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Quick Stats

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<th>Partner</th>
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<td>Factsheets</td>
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Highlights

During the last year (2012) we have:

- Obtained a signed Partnership Agreement/MoU with AAS, SPIED and Sushilian
- 23 plant doctors trained in Module 1 (field diagnosis and running plant clinics)
- 26 plant doctors trained in Module 2 (plant healthcare)
- Facilitated the establishment of 11 new plant clinics, for a total of 32 functioning plant clinics
- Conducted Module 3 training (factsheets) for 23 participants, leading to the development of 25 new, validated factsheets
- Established a Bangladesh-specific knowledge bank webpage

Key lessons learned

- The country budget should be finalised and transferred before the programme starts
- A more effective mechanism is needed for transferring funds to partners and ensuring that all expenses are properly documented with appropriate receipts
- Recruit plant doctors with an educational background in agriculture

Proposed next steps

- Pursue the signing of Plantwise Agreements with partners
- Conduct training of trainers and Module 4 training (M&E) to establish a monitoring system
- Conduct regional workshop and national forum meeting
- Introduce data management system and give training to data manager for basic data management system
- Continue plant doctor capacity building
Barbados

**Partnerships**

<table>
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<tr>
<th>Partner Name</th>
<th>Role</th>
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<tbody>
<tr>
<td>Ministry of Agriculture, Food, Fisheries and Water Resource Management (MoA)</td>
<td>LIO</td>
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</table>

NRO = National Responsible Organisation       LIO = Local Implementing Organisation

**Highlights**

*During the last year (2012) we have:*

- Obtained a signed Memorandum of Understanding with MoA
- National Coordinator in place
- Conducted Module 2 training (plant healthcare) for 11 plant doctors
- Conducted Module 3 training (fact sheets) for 11 plant doctors, 17 fact sheets prepared
- Held successful plant clinic for World Food Day and made Thursdays national plant clinic day
- MoA has suggested 4 clinics

**Key lessons learned**

- Despite buy in from senior officials in the ministry, this may not be sufficient to override complexities in local government. In some cases, this may require new alliances with NGO’s, e.g. Barbados Agricultural Society, and the private sector

**Proposed next steps**

- Robust public awareness programme to promote the clinics
- Outfit clinics with basic equipment and infrastructure for operations
- Develop method to capture data from call-ins and other plant clinic related activities that are conducted by the ministry on days other than Thursdays
- Link plant clinics with agro input suppliers across the country
- Implement the plant clinic data management process by working with National Coordinator to identify and build capacity of one or more dedicated data managers
- Continue capacity building of a national team of plant doctor trainers

**Quick Stats 2012 & Cumulative**

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**Bolivia**

**Partnerships**

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<th>Partner Name</th>
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<td>National Institute of Agricultural, Livestock and Forestry Innovation (INIAF) – Cochabamba</td>
<td>LIO – Possible NRO</td>
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<tr>
<td>National Service for Agricultural and Livestock Health (SEDAG) – Santa Cruz</td>
<td>LIO support (run plant clinics and they are responsible for the country pest list information)- Supports strengthening of plant health system</td>
</tr>
<tr>
<td>Department of Agricultural and Food Safety (DSA) – Santa Cruz</td>
<td>LIO support – Run plant clinics and they are leading the work in Santa Cruz</td>
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<tr>
<td>Centre for Tropical Agricultural Research (CIAT) – Santa Cruz</td>
<td>LIO support – Run plant clinics and assist with the 2 diagnostic laboratories in Santa Cruz</td>
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<td>Foundation for the promotion and investigation of Andean products (PROINPA) – Cochabamba</td>
<td>LIO support – Run plant clinics</td>
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<td>San Simón University (UMSS) – Chapare</td>
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<tr>
<td>René Moreno University , “Vallecito” – Santa Cruz</td>
<td>LIO support – Run plant clinics – anticipated future plant doctor trainers</td>
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<tr>
<td>Association of Agricultural Input Suppliers (APIA) – Santa Cruz</td>
<td>Represents all the large agrochemical input suppliers. It helps with funds for the multiplication of plant clinic material (Factsheets).</td>
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**Highlights**

During the last year (2012) we have:

- Obtained a signed Partnership Agreement with DSA, CIAT, SEDAG, PROINPA
- Discussed Partnership Statement with INIAF – Currently the document is being evaluated
- 24 plant doctors trained in Module 1 (field diagnosis and running plant clinics)
- 22 plant doctors trained in Module 2 (plant healthcare)
- Facilitated the establishment of 12 new plant clinics, for a total of 28 functioning plant clinics
- Conducted Module 3 training (factsheets) for 22 participants, leading to the development of 35 new, validated factsheets, and edited the 60 fact sheets written before (2006 to 2011)
- Conducted training on pest management decision guides (green and yellow lists)
- Facilitated 4 plant health rallies/campaigns
- Established a data management system with 7 national data managers

**Key lessons learned**

- In Santa Cruz it is necessary to explore new partners in addition to the local government
- It is necessary to have 2 national plant clinic coordinators in the country due to the distances and political complexities
- It is important to explore new partners in the country to have the expansion of plant clinics to other areas besides Santa Cruz and Cochabamba

**Proposed next steps**

- Organize meetings in La Paz in order to establish the Partnership Agreement with INIAF
- Expansion of plant clinics to new areas in the country
- Establishment of collaboration with new partners in the country
- Finalization of the Data Sharing Agreement with SENASAG

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**Quick Stats 2012**

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<td>Plant Doctors Trained</td>
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Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>The General Directorate of Agriculture (GDA)</td>
<td>NRO and LIO</td>
</tr>
<tr>
<td>Royal University of Agriculture (RUA)</td>
<td>Provides diagnostic support and technical expertise</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Obtained a signed Partnership Statement and Data Sharing Agreement with GDA
- 28 plant doctors trained in Module 1 (field diagnosis and operations of clinics) and Module 2 (plant healthcare and the art of advice)
- Facilitated establishment of the first 10 plant clinics
- Conducted Module 3 training (factsheets) for 17 participants, leading to the development of 4 new, validated factsheets
- Training on pest management decision guides (green and yellow lists) for 17 participants, leading to the development of 10 pest-specific green and yellow lists
- Conducted national survey of existing diagnostic services
- Established a Cambodia-specific knowledge bank website

Key lessons learned

- Plantwise course content should be in local languages and lectures illustrated with local examples where necessary
- The pest management decision guide training should precede Module 3 training
- In countries where CABI staff do not speak the local language, it is advised to train local master trainers who should then train the plant doctors; the use of translators for module 3 training presented problems of understanding and translating concepts

Proposed next steps

- Prepare to implement Module 4 to ensure monitoring and quality assurance within the national plant clinic programme especially for clinic data
- Link plant clinics with the diagnostic network in the country
- Conduct data management training by building capacity of one or more dedicated data managers, demonstrating the multiple uses of the clinic data
- Continue developing pest management decision guides and factsheets for plant doctors
China

Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Agriculture (MoA)</td>
<td>Chinese Donor and Supervision</td>
</tr>
<tr>
<td>Institute of Plant Protection, Chinese Academy of Agricultural Sciences (CAAS)</td>
<td>NRO – particularly in establishing diagnostic support network within China</td>
</tr>
<tr>
<td>Beijing Plant Protection Station (BPPS)</td>
<td>LIO in Beijing area</td>
</tr>
<tr>
<td>Xing’an Plant Protection Station (XAPPS), Guangxi Province</td>
<td>LIO in Guangxi province</td>
</tr>
<tr>
<td>Information Institute, Anhui Academy of Agricultural Sciences</td>
<td>Content partner of the Knowledge Bank</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:
- Obtained signed Partnership Agreements with BPPS and XAPPS
- 29 plant doctors trained in Module 1 (field diagnosis and running plant clinics) and 29 trained in Module 2 (plant healthcare) in Beijing and Guangxi
- Facilitated the establishment of the first 9 plant clinics, which issued more than 1,000 prescriptions for plant health problems
- Won a great deal of media attention, with 6 Chinese newspapers reporting on events, and more than forty websites citing the news about launch of plant clinics in China
- Conducted Module 3 training (fact sheets development) in Beijing and Guangxi for 15 participants, leading to the development of 20 new and validated factsheets in Chinese
- Introduced a data management system to LIOs, with 8 staff in the BPPS and XAPPS being trained in data management for collecting, recording and sharing plant clinic data
- Established a China-specific knowledge bank website

Key lessons learned

- Frequency of clinic sessions (weekly or fortnightly) is not enough to meet farmers’ needs in peak period of pest occurrence
- Plant clinic location affects use by farmers; clinics set up in or next door to agro-input shops are much more popular than the clinics set up in other locations
- Most plant doctors felt that the prescription and record sheet is too complicated to fill in and is too time-consuming; incentives for using the sheets need to be identified

Proposed next steps

- Collaborate with NATESC to implement training on Green and Yellow Lists
- Implement Module 4 to introduce a culture of monitoring and quality assurance
- Establish plant clinic diagnostic support network within the China
- Implement Module 1 and 2 TOT training
- Establish 8-10 new plant clinics in Western China (Guangxi and Sichuan provinces)

Quick Stats 2012 Cumulative

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>Cumulative</th>
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<tbody>
<tr>
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<td>Plant Doctors Trained</td>
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<td>Factsheets</td>
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Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESCO Kivu</td>
<td>The main organisation running fifteen clinics, and LIO. They lead and support Plantwise activities from their company budget, and provide plant doctors for the fifteen clinics in North Kivu</td>
</tr>
<tr>
<td>Université Catholique du Graben (UCG)</td>
<td>LIO – Implementing two plant clinics, and use clinics as part of their student training programme in Butembo, North Kivu Province</td>
</tr>
<tr>
<td>The Centre d’Etudes de Recherches et d’Actions pour le développement (CERAD)</td>
<td>LIO – A private organisation running one plant clinic in Province Orientale</td>
</tr>
<tr>
<td>Government Institutions – Institut National pour l’Etude et la Recherche Agronomique (INERA) and Office Nationale du Café (ONC) and IPAPEL</td>
<td>Potential LIO – their staff were trained in Module 1 and sometimes ONC and IPAPEL join ESCO Kivu at some of the plant clinics.</td>
</tr>
<tr>
<td>Deutshe Welthungerhilfe e.V. (WHH), a non-governmental organization</td>
<td>A strong potential LIO – expressed willingness to restart plant clinics as soon after their staff have been trained</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Obtained a signed Data Sharing Agreement with ESCO Kivu and UCG
- Obtained a signed Data Sharing Agreement with WHH in preparation for their participation in the programme
- Conducted Module 1 training (field diagnosis and running plant clinics) for 47 plant doctors
- Held a National Stakeholder Forum, and twelve (12) institutional heads in the regional government (ONC, INERA, AGRIPEL, UCG), and private organisation (ESCO) participated
- Introduced a data management system to staff running plant clinics
- Carried out five plant health rallies (four on Cocoa Black pod and one on Banana Xanthomonas wilt)
- Plant clinic activities expanded to 19 sites (9 new plant clinics)
- Effectively engaged with Office Nationale du Café (ONC), INERA (Research Institute), and IPAPEL who participated in the stakeholder forum, and had a buy in into the Plantwise Programme, although the challenge is financial resources for them

Key lessons learned

- Social and political situation remains volatile, and this can affect logistics and running of clinics in the future
- A company with a committed structure can be our best ally in DRC
- More government engagement needs to be done in 2013
- There is further development possible in Province Orientale through CERAD, and WHH

Proposed next steps

- Carry out Modules 1 (for new plant doctors), 2, 3 and 4 and produce factsheets
- Work with potential LIOS to start new plant clinics

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<thead>
<tr>
<th>Quick Stats</th>
<th>2012</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
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Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Protection Regulatory Services, MoFA</td>
<td>Coordination (NRO) – under discussion</td>
</tr>
<tr>
<td>Agri Extension Department, MoFA</td>
<td>Implementing (LIO) through regional and district offices</td>
</tr>
<tr>
<td>CSIR CRI and SARI</td>
<td>Backstopping – under discussion</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation   LIO = Local Implementing Organisation

Highlights
During the last year (2012) we have:

- Identified and engaged relevant partners for plant clinics
- Conducted Module 1 training (field diagnosis and running plant clinics) for 29 plant doctor trainees
- Facilitated the establishment of 11 new plant clinics – 2 more clinics are expected to take off soon
- Discussion initiated on Partnership Statement with PPRS (MoFA)
- Started collecting data on diagnostic services in the country

Key lessons learned

- Commitment & behaviour of individuals, and institutional culture, are important considerations in successfully implementing plant clinics
- Conflict of interest among institutions has implications for plant clinic implementation and needs to be handled carefully
- In countries with a decentralized extension system, it is good to balance engagement at the top (national) and bottom (regions/districts)
- Institutionalization and contribution in countries is likely to be more difficult where the government is not strongly supporting the agriculture sector
- Initiating plant clinics in new countries needs more effort and attention than running or expanding them

Proposed next steps

- Scale up/out – within current regions and to new ones
- Identify national coordinator and/or coordinating institution
- Provide more training courses to new and existing plant doctors
- Facilitate experience sharing among plant clinics and regions
- Facilitate signing of various agreements
- Work on issues of data capturing and sharing
- Hold inception and stakeholder review and planning workshop
- Work to establish strong institutional buy-in from key institutions
- Keep exploring other new potential partners for plant clinics

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Quick Stats 2012 Cumulative

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Ghana
Grenada

Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
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</thead>
<tbody>
<tr>
<td>Ministry of Agriculture Forestry and Fisheries</td>
<td>LIO and NRO</td>
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</table>

NRO = National Responsible Organisation  
LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Obtained a signed Memorandum of Understanding with the MAFF
- National Coordinator appointed
- 15 plant doctors trained in Module 2 (plant healthcare)
- 11 plant doctors trained in Module 3 (how to become a technical writer) with 11 factsheets produced
- 8 plant clinic events per month confirmed with staffing and schedules
- Financial procedures agreed with LIO

Key lessons learned

- LIO must take ownership, and understand and appreciate long term benefits and show commitment to plant clinic activities
- Communication within the Ministry is not as good as it should be for efficient plant clinic operations
- Motivation of National Coordinator and National Data Validator are important for clinics to run effectively

Proposed next steps

- Outfit clinics with basic equipment and infrastructure for start up operations by first quarter of 2013
- Implement the plant clinic data management process by building capacity of one or more dedicated data managers
- Improved cooperation between plant clinics with agro input suppliers
- Conduct quarterly clinic performance assessment
- Continue capacity building of a national team of plant doctor trainers
- Implement Module 4 to introduce a culture of monitoring and quality assurance within the national plant clinic programme
Honduras

Partnerships

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<tr>
<th>Partner Name</th>
<th>Role</th>
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<tbody>
<tr>
<td>Secretaría de Agricultura y Ganadería (SAG)</td>
<td>NRO</td>
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<tr>
<td>Servicio Nacional de Sanidad Agropecuaria de Honduras (SENASA)</td>
<td>LIO and anticipated future plant doctor trainers</td>
</tr>
<tr>
<td>Centro Empresarial de Negocios (CENOC); Cooperativa de Productores Agrícolas Unidos Limitada (COPRAUL); Dirección de Ciencia y Tecnología Agropecuaria (DICTA); Asociación de Productores, Banderillas Mercedes; Asociación Los Naranjos, Plan Del Rosario; Asociación de Municipios del Valle de Seseapa (AMVAS); COPRAL; Aldea Global; Plan Trifinio; CATIE</td>
<td>LIOs (10)</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:
- Obtained a signed Partnership Statement with the 10 LIOs (as above)
- 23 plant doctors trained in Model 1 (field diagnosis and running plant clinics) and Module 2 (plant healthcare)
- Facilitated the establishment of the first 9 plant clinics
- Conducted Module 3 training (factsheets) for 10 participants, leading to the development of 13 new, validated factsheets
- Conducted training on pest management decision guides (green and yellow lists) for 15 participants, leading to the development of 16 pest-specific green and yellow lists
- Facilitated 1 plant health campaign

Key lessons learned

- There must be stronger emphasis on operating clinics in public places
- District-level support is crucial for sustainable plant clinic operation
- Plant doctors think that the green and yellow lists are essential support material
- Some plant doctors appear to require additional technical training after modules 1 and 2
- Intellectual Property and access to pest and disease information are sensitive issues for the Honduran Government

Proposed next steps

- Complete the signing of the MoUs
- Facilitate ToT for Modules 1 and 2
- Train 20 new plant doctors from 1 new region
- Open 10 new plant clinics
- Provide backstopping to both 2012 and 2013 plant clinics
India

Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
<th>2012</th>
<th>Cumulative</th>
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<tbody>
<tr>
<td>Government of India</td>
<td>NRO</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Krishi Vigyan Kendra of ICAR</td>
<td>LIO – Allocates subject matter specialists for plant doctor training and conducts plant clinics</td>
<td>43</td>
<td>43</td>
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<tr>
<td>M S Swaminathan Research Foundation (MSSRF)</td>
<td>LIO – Provides extension support for plant clinics</td>
<td>13</td>
<td>13</td>
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</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:
- 43 plant doctors trained in Module 1 (field diagnosis and running plant clinics) and Module 2 (plant healthcare)
- Facilitated the establishment of 13 new plant clinics
- Conducted Module 3 training (factsheets) for 16 participants, leading to the development of 30 new, validated factsheets
- MSSRF offered their extension machinery for dissemination to plant clinics in some states
- Established an India-specific knowledge bank webpage

Key lessons learned
- More partners who can support diagnostics at remote clinics are needed
- Recruit plant doctors with educational backgrounds in agriculture

Proposed next steps
- Pursue the signing of Plantwise Agreements with partners
- Conduct training of trainers and Module 4 training (M&E)
- Conduct regional workshop and national forum meetings
- Introduce data management system and train data manager for basic data management system
- Link universities to Plantwise
- Scale up, skill up and scale out the Plantwise concept in more states
- Continue capacity building of plant doctors

Quick Stats

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<thead>
<tr>
<th></th>
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<th>Cumulative</th>
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<tr>
<td>Plant Clinics</td>
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Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Agriculture (MoA)</td>
<td>Strategic, National Coordination, Running clinics, Data management, Member National Steering Committee (NSC), NRO, LIO</td>
</tr>
<tr>
<td>Kenya Agricultural Research Institute (KARI)</td>
<td>Diagnostic support, Member NSC, running clinics</td>
</tr>
<tr>
<td>Kenya Plant Health Inspectorate Service (KEPHIS)</td>
<td>Diagnostic support, Member NSC</td>
</tr>
<tr>
<td>Pest Control Products Board (PCPB)</td>
<td>Member NSC, information provision</td>
</tr>
<tr>
<td>University of Nairobi</td>
<td>Member NSC, M&amp;E</td>
</tr>
<tr>
<td>Killili Self-Help Group (CBO) &amp; Dajopen (NGO)</td>
<td>Running clinics</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  
LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- 44 plant doctors trained in Module 1 (field diagnosis & running clinics); 80 in Module 2 (plant healthcare)
- 15 participants trained in Module 3 leading to development of 7 new, validated factsheets
- Facilitated the establishment of 12 new plant clinics, for a total of 36 functioning plant clinics
- 15 national data managers trained to collect, record, harmonise and validate clinic data (this includes 14 Cluster Coordinators, the National Data Manager and 2 clerks data entry clerks appointed by MoA)
- Signed Data Sharing Agreement with MoA and established Kenya-specific knowledge bank website
- Established a national coordination mechanism which involves the National Steering Committee (NSC) constituted from 8 key institutions in the plant health system, the National Coordinator and Assistant, the National Data Manager, and 14 Cluster Coordinators appointed by MoA
- Signed National Plantwise Strategic Document drafted by the NSC
- Held national stakeholder forum with active participation by many different stakeholders

Key lessons learned

- Convening stakeholders in the plant health system is important for dialogue and strengthening partnerships – partners appreciated the role Plantwise is playing in providing a platform for this
- Having interested and enthusiastic people amongst stakeholders is important for success – the aim should be to have champions at all levels
- Identifying the position of Plantwise in national agriculture policy and various functions of the plant health system enables partners to appreciate how it will contribute to their success in meeting institutional goals and individual performance contracts
- Building awareness of how clinic information can contribute to policy, extension, research, surveillance, agrodealer services builds enthusiasm to participate in the initiative
- We need to know how to respond to and manage the rapidly expanding demand for plant clinics

Proposed next steps

- Establish an M&E system
- Support MoA to scale up – focus on ToTs; Standard Operating Procedures (SOPs) for quality assurance – particularly for training, running clinics, quality of advice given by doctors, data collection and processing
- Encourage integration & government resource allocation to ensure sustainability of Plantwise outcomes
- Further strengthen the plant health system – more focus on information flows, linkages and learning amongst different stakeholders (diagnostics, research, agrodealers, other extension processes)

Quick Stats | 2012 | Cumulative |
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Plant Clinics</td>
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Kenya
Partnerships

<table>
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<tr>
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<tbody>
<tr>
<td>Ministry of Agriculture and Development</td>
<td>NRO</td>
</tr>
<tr>
<td>Plant Protection Directorate (PPD)</td>
<td>LIO – Provides extension support, organises training and runs plant clinics</td>
</tr>
<tr>
<td>Himalayan College of Agriculture Science and Technology (HiCAST)</td>
<td>LIO – Provides students for plant doctor training and supports the PPD in diagnostics</td>
</tr>
<tr>
<td>SECARD</td>
<td>LIO - Runs plant clinics</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Obtained a signed Partnership Statement with PPD, HiCAST and SECARD
- Obtained a signed MoU with the Ministry of Agriculture and Development
- 71 plant doctors trained in Module 1 (field diagnosis and running plant clinics) and Module 2 (plant healthcare)
- Facilitated the establishment of 15 new plant clinics
- Conducted Module 3 training (factsheets) for 14 participants, leading to the development of 28 new, validated factsheets

Key lessons learned

- The plant doctors should preferably be diploma holders or agriculture graduates
- The active role of the Nepalese government in plant clinic implementation (10 clinics conducted by the PPD) indicates a strong national ownership of Plantwise concepts and activities

Proposed next steps

- Conduct training of trainers and Module 4 training (M&E)
- Conduct regional workshop and national forum meetings
- Introduce data management system and train data manager for basic data management system
- Link universities to Plantwise
- Scale up, skill up and scale out of the Plantwise concept in more states
- Continue plant doctor capacity building

Quick Stats 2012  Cumulative

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<tr>
<th></th>
<th>2012</th>
<th>Cumulative</th>
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</table>

target country Nepal

Sanjit Das, Panos
Nicaragua

Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Institute of Agricultural and Livestock Research (INTA)</td>
<td>LIO – Run plant clinics and provide technical assistance</td>
</tr>
<tr>
<td>Foundation for the Technical, Agricultural, Livestock and Forestry</td>
<td>Supports development of plant clinics (gives grants)</td>
</tr>
<tr>
<td>Development of Nicaragua (FUNICA)</td>
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<tr>
<td>Project for Integrated Pest Management in Central America (PROMIAC)</td>
<td>Supports development of plant clinics (gives grants, provides technical support)</td>
</tr>
<tr>
<td>National Autonomous University of Nicaragua (UNAN Leon)</td>
<td>LIO – Run and supports plant clinics, trains plant doctors</td>
</tr>
<tr>
<td>National Plant Health Network (CENEIA)</td>
<td>LIO – Support plant clinics and lead the activities in the country</td>
</tr>
<tr>
<td>Farmer Associations</td>
<td>LIO – Run plant clinics</td>
</tr>
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</table>

NRO = National Responsible Organisation  
LIO = Local Implementing Organisation

Quick Stats

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<td>Factsheets</td>
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</table>

Highlights

During the last year (2012) we have:

- Obtained a signed Partnership Statement with UNAN Leon
- Presented and discussed a signed Partnership Statement with INIAF
- The Data Sharing Agreement was discussed with SENASAG HQ
- Trained 15 plant doctors and ToT group in Module 1 (field diagnosis and running plant clinics)
- Trained 15 plant doctors and ToT group in Module 2 (plant healthcare)
- Facilitated the establishment of 10 new plant clinics, for a total of 18 functioning plant clinics
- Conducted training on pest management decision guides (green and yellow lists) for 26 participants, leading to the development of 18 pest-specific green and yellow lists.
- Facilitated 4 plant health rallies/campaigns
- Established a data management system, with 6 national data managers

Key lessons learned

- Plant Health Network needs articulation and organization to follow up key activities
- MAGFOR involvement can be increased with action plan
- The diagnostic laboratories need new partnerships
- Plant clinics need to be included as part of the YOP of INTA

Proposed next steps

- Organize meetings in Managua in order to establish the Partnership Agreement
- Expansion of plant clinics to new areas in the country
- Establishment of collaboration with new partners in the country
- Finalization of the Data Sharing Agreement
Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of National Food Security &amp; Research (MNFS&amp;R) Ministry of Agriculture Punjab</td>
<td>NRO: Policy making bodies at federal and provincial level and directs relevant federal and provincial departments on program implementation</td>
</tr>
<tr>
<td>Directorate general of Agriculture Extension and Adaptive Research Directorate general of pest warning and quality control of pesticides</td>
<td>LIO: Major implementing body (providing technical field staff for plant doctor training and running plant clinics). Anticipated future plant doctor trainers</td>
</tr>
<tr>
<td>Ayub Agriculture Research institute Faisalabad</td>
<td>Provide focal point for research, diagnostic facilities and technical support on plant health issues</td>
</tr>
<tr>
<td>University of Agriculture Faisalabad (UAF)</td>
<td>Technical experts for developing resource materials Diagnostic labs linked with plant clinics</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights
During the last year (2012) we have:
- Obtained a signed Partnership Statement with MNFS&R
- MOU and data sharing agreement agreed with LIO and awaiting signature of authorities
- 52 plant doctors trained in Module 1 & 2 (field diagnosis and running plant clinics)
- Facilitated establishment of 26 new plant clinics
- Provided plant clinic infrastructure and supporting literature at plant clinics
- Conducted Module 3 training (factsheets) for 10 participants, leading to the development of 25 new, validated factsheets
- Imparted data management training to 6 persons: training to 1 data validator from each district, training to 1 data entry operator from each district, training to one data analyser
- Developed data entry software and provided to data entry operators
- Validated data being submitted to PW knowledge bank
- Conducted training of Module 4 to district agriculture officers and deputy district agriculture officers to start monitoring and quality assurance of clinics and ownership of program
- Agro dealer survey completed in Bahawalpur district (200 registered agro dealers)
- Five diagnostic labs identified in university of agriculture Faisalabad. Agreements in process

Key lessons learned
- Regularity must be ensured from higher authorities
- Data validators and monitoring persons should also be given module 1 & 2 training
- Data entry software is very helpful but it should be user-friendly
- Training material & supporting material must be in local language and local background information for better understanding

Proposed next steps
- Link plant clinics with diagnostic laboratories in national research institutes and universities
- Start Plantwise activities in two more provinces and scale up of program in Punjab province
- Start TOT in 2013 for scale up of PW in the country
Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Institute for Agricultural Innovation (INIA)</td>
<td>NRO and LIO – Runs plant clinics and leads the Plantwise activities in Peru</td>
</tr>
<tr>
<td>National Service for Agricultural Health (SENASA)</td>
<td>NPPO – Provides technical assistance to plant clinics and is responsible for pest lists and quarantine in the country.</td>
</tr>
<tr>
<td>Local Government – Municipalities</td>
<td>LIO – Run plant clinics</td>
</tr>
<tr>
<td>International Potato Centre (CIP)</td>
<td>Provides technical assistance to plant clinics</td>
</tr>
<tr>
<td>“La Molina” University</td>
<td>Provides technical assistance to plant clinics</td>
</tr>
<tr>
<td>Entomological Society of Peru</td>
<td>Provides technical assistance to plant clinics</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Obtained a signed Partnership Agreement/MoU with INIA
- 29 plant doctors trained in Module 1 (field diagnosis and running plant clinics) and 24 in Module 2 (plant healthcare)
- Facilitated the establishment of the first 16 plant clinics
- Conducted Module 3 training (factsheets) for 16 participants, leading to the development of 14 new, validated factsheets
- Conducted training on pest management decision guides (green and yellow lists) for 22 participants, leading to the development of 31 pest-specific green and yellow lists
- Facilitated 2 plant health rallies
- Introduced and discussed a data management system, with 6 national data managers that will be trained for collecting, recording, harmonising and validating plant clinic data
- Established a Peru-specific knowledge bank website

Key lessons learned

- Scanning technology for data collection is possible due to the infrastructure and skills in Peru
- Sharing information between different organizations (e.g. INIA and SENASA) will be challenging; therefore, this requires increased attention and effort

Proposed next steps

- Finalization of the Data Sharing Agreement with SENASA
- Implementation of Module 4 and establishment of the quality control criteria and people responsible for the quality monitoring process
- Visit existing plant clinics to identify plant doctors’ major constraints
**Target Country**

**Rwanda**

### Quick Stats

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Clinics</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Plant Doctors Trained</td>
<td>53</td>
<td>61</td>
</tr>
<tr>
<td>National Partners</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Factsheets</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

### Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rwanda Agriculture Board (RAB), in the Ministry of Agriculture</td>
<td>NRO and LIO. They lead Plantwise activities, and provide some plant doctors</td>
</tr>
<tr>
<td>and Animal Resources (MINAGRI)</td>
<td></td>
</tr>
<tr>
<td>Ministry of Local Government</td>
<td>LIO – provide plant doctors, through district and sector administration, who jointly implement plant clinics with RAB</td>
</tr>
<tr>
<td>Department of Agriculture and Livestock Inspection and</td>
<td>Participates in development of fact sheets, provision of information such as pest lists, registered agro-dealers and utilisation of information from plant clinics</td>
</tr>
<tr>
<td>Certification, MINAGRI (the NPPO)</td>
<td></td>
</tr>
<tr>
<td>Higher Institute of Agriculture and Animal Husbandry (ISAE)</td>
<td>Participates in activities such as development of fact sheets. They want to include Plantwise in their curricula</td>
</tr>
<tr>
<td>National University of Rwanda (NUR)</td>
<td>Participates in fact sheet development</td>
</tr>
<tr>
<td>Umutara Polytechnic</td>
<td>Participates in fact sheet development</td>
</tr>
<tr>
<td>National Agriculture Export Board, MINAGRI</td>
<td>Participates in fact sheet development. Requested for their District Horticulture Officers to be trained as plant doctors</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  
LIO = Local Implementing Organisation

### Highlights

**During the last year (2012) we have:**

- Shared a draft Partnership Statement and a draft Data Sharing Agreement with RAB
- 53 plant doctor trained in Module 1 & 2
- Carried out Module 3 training for 18 participants, leading to the development of 15 new, validated factsheets, also translated into Kinyarwanda
- Established 4 new plant clinics, for total of 12 functioning plant clinics
- Established a data management framework with the NRO
- Held a national stakeholder forum of 95 participants from RAB, MINAGRI, NAEB, Universities, agrodealers, farmer organisations, IFDC, Local Government (Vice Mayors)
- Held high level talks with planners, the regulatory body, universities and policy makers, such as Local Government District Administrators, Mayors and Governors, Director of Planning in the Ministry of Agriculture (MINAGRI), Project Managers within MINAGRI about Plantwise and Plant Clinics
- Backstopped and monitored quality of plant doctors
- Linked with diagnostic capacity and identified diagnostic limitations requiring support
- Discussed with IFDC and agreed inclusion of their agrodealer trainers in Plantwise training programme

### Key lessons learned

- Institutional uncertainties can delay activities
- Engaging both RAB and Local Government under District and Sector administration, and harmonising their roles, is important for success of Plantwise

### Proposed next steps

- Carry out Module 4 to introduce monitoring for improving plant clinic quality and output
- Link plant clinics with other extension strategies and projects
- Train trainers in order to meet the demand for plant clinics and factsheets in the country
- Train more plant doctors in Modules 1, 2, and 3
- Build a strong plant clinic data management, processing and sharing system
- Build capacity of diagnostic services

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[www.plantwise.org](http://www.plantwise.org)

LOSE LESS, FEED MORE
**Sierra Leone**

### Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Agriculture, Forestry and Food Security (MAFFS), Crop Protection Services Unit and Extension Division</td>
<td>NRO and LIO – oversee the national plant clinic network and provide staff to serve as plant doctors</td>
</tr>
<tr>
<td>Njala University</td>
<td>LIO – operate a plant clinic as a training tool for students and to support local agriculture</td>
</tr>
<tr>
<td>Cooperazione Internazionale (COOPI)</td>
<td>LIO support (provide some clinic materials and send staff to support the MAFFS plant doctors)</td>
</tr>
<tr>
<td>Sierra Leone Agricultural Research Institute (SLARI)</td>
<td>Technical experts for developing resource materials</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  
LIO = Local Implementing Organisation

### Highlights

**During the last year (2012) we have:**

- Signed a Partnership Statement and Data Sharing Agreement with MAFFS
- 20 plant doctors trained in Module 1 (field diagnosis, running plant clinics) and 20 trained in Module 2 (plant healthcare)
- Facilitated establishment of 9 new plant clinics and the re-opening of another that had stopped, for a total of 36 functioning plant clinics
- Conducted Module 3 training (factsheets) for 16 participants, leading to the development of 18 new, validated factsheets
- Conducted training on pest management decision guides (green and yellow lists) for 20 participants, leading to the development of 15 pest-specific green and yellow lists
- Introduced a data management system, with 3 staff in the Crop Protection head office being trained in basic data management for collecting, recording and sharing plant clinic data
- Established a Sierra Leone-specific knowledge bank website
- Strengthened district-level ownership of the plant clinic programme, resulting in the first-ever inclusion of plant clinic activities in the annual budget proposals from the District Agric. Officers

### Key lessons learned

- Many plant doctors seem to prefer visiting multiple clinic sites rather than holding regular/reliable clinic sessions at a few key sites
- Establishing effective in-country data management is difficult due to national infrastructure and unreliable electricity and internet access
- Central coordination (from Freetown) is, by itself, not effective for monitoring clinic activities in all districts; district-level ownership, leadership and responsibility is also necessary
- Plant clinics run by farmers, with no direct involvement from MAFFS, are more difficult to monitor

### Proposed next steps

- Implement Module 4 to introduce a culture of monitoring and quality assurance within the national plant clinic programme
- Link plant clinics with newly established Agricultural Business Centres at up to 48 sites across the country
- Further strengthen the plant clinic data management process by building capacity of one or more dedicated data managers and demonstrating the multiple uses of the clinic data
- Continue capacity building of a national team of plant doctor trainers

### Quick Stats

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2012</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Clinics</td>
<td>10</td>
<td>36</td>
</tr>
<tr>
<td>Plant Doctors Trained</td>
<td>20</td>
<td>55</td>
</tr>
<tr>
<td>National Partners</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Factsheets</td>
<td>18</td>
<td>31</td>
</tr>
</tbody>
</table>

**Target country:** Sierra Leone

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**Katherine Cameron, CABI**
Sri Lanka

Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORDI (Department of Agriculture)</td>
<td>Plant clinic coordination</td>
</tr>
<tr>
<td>Provincial Departments of Agriculture (Ministry of Agriculture)</td>
<td>LIO – Provide staff and basic resources for plant clinics</td>
</tr>
<tr>
<td>Ministry of Agrarian Services</td>
<td>LIO – Contributes staff to support clinics led by staff from the Provincial Departments of Agriculture</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation      LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Provided guidance on the formal adoption of the growing plant clinic network by the Department of Agriculture and the Ministry of Agriculture
- 48 plant doctors trained in Module 1 (field diagnosis and running plant clinics) & Module 2 (plant healthcare)
- Facilitated the establishment of 9 new plant clinics, for a total of at least 62 plant clinics
- Supported the in-country data management process to get a first look at the data collected at plant clinics, which will enable lesson learning and facilitate the strengthening of the programme

Key lessons learned

- There is strong uptake of the plant clinic concept by district extension workers
- Having a research institution directly involved in the establishment of plant clinics has led to a strong diagnostic back-up system (currently provided mainly by the Horticultural and Research Development Institute (HORDI), which has been leading the clinic programme)
- A conflicting mandate constrains the plant clinic coordinator in effectively overseeing plant clinic operations once they are established

Proposed next steps

- Support the newly established steering committee for the plant clinic programme as it attempts its first coordination activities
- Facilitate the collection, entry and analysis of plant clinic data to review clinic operations to date
- Assist with the establishment of a clinic monitoring system

Quick Stats

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Clinics</td>
<td>9</td>
<td>62</td>
</tr>
<tr>
<td>Plant Doctors Trained</td>
<td>48</td>
<td>250</td>
</tr>
<tr>
<td>National Partners</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Factsheets</td>
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<td>0</td>
</tr>
</tbody>
</table>

target country sri lanka
Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Agriculture Food Security and Cooperatives (MAFC)</td>
<td>NRO and LIO – oversee Plantwise activities and facilitate plant clinic operation</td>
</tr>
<tr>
<td>Local governments</td>
<td>LIOs – provide resources for plant clinic operation</td>
</tr>
<tr>
<td>Selian Research Institute (SARI); Tropical Pesticide Research Institute (TPRI); Seed Unit of MAFC</td>
<td>Support development of technical documents for plant doctors</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Reviewed the plant health system of Tanzania
- Obtained a signed Partnership Statement with MAFC
- Conducted Module 1 training (field diagnosis and running plant clinics) for 20 plant doctor trainees and an additional 8 higher-ranking officers
- Conducted Module 2 training (plant healthcare) for 20 plant doctor trainees and an additional 3 higher-ranking officers
- Facilitated the establishment of the first 12 plant clinics
- Conducted Module 3 training (factsheets) for 11 participants, leading to the development of 32 (18 in English, 14 in Swahili) validated factsheets
- Conducted training on pest management decision guides (green and yellow lists) for 12 participants, leading to the development of 7 pest-specific green and yellow lists
- Carried out 1 plant health rally in northern Tanzania

Key lessons learned

- A sustainable mechanism for fund transfer to the NRO would facilitate implementation of in-country budgeted activities
- It is important to have more in-country presence by CABI for early mentoring of plant clinics, strengthening partnerships and data management issues

Proposed next steps

- Establish a Plantwise National Steering Committee
- Focus engagement on local governments to ensure sustainability of plant clinics
- Train more plant doctors to establish new plant clinics and develop new technical extension materials (e.g., green & yellow lists, factsheets) to support clinic operations
- Conduct mass extension activities, each targeting 500 to 1000 farmers/households
- Initiate the establishment of monitoring and evaluation processes for clinic quality assurance
- Link plant clinics to diagnostic labs following diagnostic surveys and to agro-input dealers
- Develop in-country processes for data recording, collection, management, validation and sharing, including feedback loops to plant doctors

Quick Stats 2012  Cumulative

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Clinics</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Plant Doctors Trained</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>National Partners</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Factsheets</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>
Trinidad and Tobago

Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Food Production (MFP)</td>
<td>NRO and LIO – provides some clinic materials and support staff</td>
</tr>
<tr>
<td>Department of Agriculture, Tobago House of Assembly, Tobago</td>
<td>NRO and LIO</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- Obtained a signed MoU with MFP, Trinidad
- 28 plant doctors trained in Module 1 (field diagnosis and running plant clinics) & Module 2 (plant healthcare)
- Facilitated the running of 8 plant clinic sessions per month
- Established a T&T-specific knowledge bank website

Key lessons learned

- Informed selection of plant clinic locations is critical to farmer attendance
- Communication within the Ministry is key for effective programme implementation
- Motivation of the National Coordinator and National Data Validator is important for clinics to run effectively
- Establish and agree on financial procedures with the LIO before starting plant clinic operations
- Long-term benefits of plant clinic activities should be demonstrated to build LIO ownership
- The agrochemical culture is very strong in T&T and there is need to build awareness for safe pesticide use
- Advisors from the agrochemical industry have strong farmer network

Proposed next steps

- Equip plant clinics with necessary equipment and infrastructure
- Implement the plant clinic data management process by securing the position of the National Coordinator and building capacity of one or more dedicated data managers, demonstrating the multiple uses of the clinic data
- Run a robust public awareness programme and promotion of the plant clinics to enhance farmers’ awareness and attendance
- Conduct quarterly clinic performance assessments
- Implement Module 4 to introduce a culture of monitoring and quality assurance within the national plant clinic programme
- Continue capacity building of new and existing plant doctors
Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)</td>
<td>NRO – Policy guidance, providing some clinic start-up materials &amp; coordination of PC activities</td>
</tr>
<tr>
<td>National Agricultural Advisory Services (NAADS)</td>
<td>LIO – Anticipates providing resources and technical staff (some plant doctors) for plant clinics</td>
</tr>
<tr>
<td>National Agricultural Research Organisation (NARO)</td>
<td>Technical experts supporting diagnostics and development of information materials (factsheets)</td>
</tr>
<tr>
<td>Makerere University</td>
<td>Provision of support to diagnostic services; expect to support PD. Possible Trainers.</td>
</tr>
<tr>
<td>District Local Governments</td>
<td>LIO – Provide funds and technical staff to run plant clinics</td>
</tr>
<tr>
<td>NGOs: Self Help Africa (SHA); Rwenzori Information Centre Network (RIC-NET); SOCADIDO</td>
<td>LIOs – Provide funds and technical staff to run plant clinics and train new plant doctors</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

Highlights

During the last year (2012) we have:

- 40 plant doctors trained in Module 1 (field diagnosis and running plant clinics) including 4 national plant doctor trainers
- 20 plant doctors trained in Module 2 training (plant healthcare)
- Facilitated establishment of 15 new clinics, for a total of 58 plant clinics in 18 districts.
- Conducted Module 3 training (factsheets) for 15 participants, leading to the development of 18 new, validated factsheets
- Provided equipment and operational funds to update 4 plant clinics to full operating capacity
- Created awareness about Plantwise during assessment visits to 12 districts
- Held 2 plant clinic cluster meetings in central and eastern regions
- Held a Plantwise launch and stakeholder forum, generating wide publicity

Key lessons learned

- Current coordination arrangement does not take account of institutional environment: clear definition of stakeholder roles and functions is required and has been initiated, including a national coordination mechanism but with local (government, NGO) implementation
- Plant clinics are gaining popularity in Uganda, mainly among extension service providers; more effort is needed at zonal and district-level, leveraging existing activities by NGOs.
- Scaling up of plant clinics requires taking plant doctor training closer to the stakeholders, focusing training on local problems (perhaps based on data collected in plant clinics), and effective ToT

Proposed next steps

- Raise regional awareness, followed by plant doctor capacity-building activities
- Mentor plant doctors & clinics to ensure quality of advice given to farmers
- Provide access to information including Plantwise knowledge bank and other sources
- Support in-country data management (collection, analysis and use) for M&E and other purposes

Quick Stats 2012 Cumulative

<table>
<thead>
<tr>
<th>Plant Clinics</th>
<th>15</th>
<th>58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Doctors Trained</td>
<td>20</td>
<td>63</td>
</tr>
<tr>
<td>National Partners</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Factsheets</td>
<td>16</td>
<td>29</td>
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</tbody>
</table>
## Partnerships

<table>
<thead>
<tr>
<th>Partner Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Vietnam Academy of Agricultural Sciences (VAAS)</td>
<td>NRO and LIO</td>
</tr>
<tr>
<td>Plant Protection Research Institute (PPRI)</td>
<td>LIO support (providing some identification and technical expertise)</td>
</tr>
<tr>
<td>Southern Horticultural Research Institute (SOFRI)</td>
<td>LIO support (providing technical expertise)</td>
</tr>
<tr>
<td>Institute of Agricultural Environment (IAE)</td>
<td>LIO support (providing technical expertise)</td>
</tr>
<tr>
<td>National Agricultural Extension Center (NAEC)</td>
<td>LIO support (providing technical expertise)</td>
</tr>
<tr>
<td>Plant Protection Department (PPD)</td>
<td>LIO support (providing technical expertise)</td>
</tr>
</tbody>
</table>

NRO = National Responsible Organisation  LIO = Local Implementing Organisation

## Highlights

During the last year (2012) we have:
- Obtained a signed Partnership Statement and Data Sharing Agreement with VAAS
- Trained 20 plant doctors in Module 1 (field diagnosis and operations of plant clinics) and Module 2 (plant healthcare)
- Facilitated establishment of 10 new plant clinics in addition to 2 active older ones
- Conducted Module 3 training (factsheets) for 19 participants; created 4 new, validated factsheets during the course
- Conducted in-country survey for diagnostic services and held stakeholders meeting for discussions and agreement of sample submission protocols
- Strengthened ownership of the plant clinic programme in annual VAAS programs proposals
- A Vietnamese version of the plant clinic prescription form has been developed

## Key lessons learned

- PW course content – needs to be in local languages and lectures given in simple/clear English with local examples
- Operational – have a dedicated/hands-on PW CABI NC in the countries; current NC is already very involved in a multitude of other activities
- Funding – major driver and needs to be increased to implement various activities
- Participants for training – participants to be trained as plant doctors should have background experience in extension

## Proposed next steps

- Prepare to implement Module 4 to ensure monitoring and quality assurance within the national plant clinic programme, especially for clinic data
- Link plant clinics with the other diagnostics networks in the country
- Conduct data management training by building capacity of one or more dedicated data managers and demonstrating the multiple uses of the clinic data
- Follow-up on backstopping visits to support plant doctors and clinics
- Develop agro dealer lists and pest management decision guides to be distributed to the NC
37

Farmers in Honduras feel that thanks to Plantwise they now “have a place to go with problems.” The 10 signed partnership agreements with NGOs, government and farmer coops, show stakeholders have brought Plantwise into the plant advisory network.

A local government representative in Cambodia sees the plant clinic concept as relevant and ‘critical’ to complement the country’s extension activities. As a sign of high-level commitment, the Deputy Director of the General Directorate of Agriculture has mandated plant clinics in his Terms of Reference.

In Kenya, Plantwise has truly found a home in the Ministry of Agriculture. The Ministry has institutionalised Plantwise within the national plant health system and now uses it as a vehicle for meeting national mandates. With this home come the benefits of data sharing. One extension officer reported that the plant doctor training (Modules 1 and 2) “was the best training I got in the last 26 years!”

The Department of Agriculture, Irrigation and Livestock in Afghanistan has adopted Plantwise as national operation strategy. One collaborating researcher from Kabul University reported “The factsheet development course was interesting. It not only helped us interact with farmers but tested our own abilities as well.”

Agricultural ministry of Peru shows clear ownership of Plantwise, funding and staffing the clinics and using the programme as the basis of a new plant health system.

The District Agricultural Officers in Sierra Leone have, for the first time, begun to include plant clinic activities in their annual budget proposals. Even the president of the country speaks highly of the plant clinic programme.

Annex 2 – Sustainability Indicator Map
Plantwise is a global alliance, led by CABI, working together to improve food security and rural livelihoods by reducing crop losses.

Interested?
Then join us, visit www.plantwise.org to find out more, see the organizations involved and access the latest updates, or email plantwise@cabi.org

Contact
To find out more and discuss how you can get involved in this exciting new initiative, contact either of the following:

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T: +44 (0)1491 829215  
E: t.nicholls@cabi.org

**Janny Vos**, Strategic Partnerships Director  
T: +31 (0)33 43210314  
E: j.vos@cabi.org

**Ulrich Kuhlmann**, Plantwise Programme Executive  
T: +41 (0)32 421 4882  
E: u.kuhlmann@cabi.org

Plantwise is supported by:

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![Ministry of Agriculture, People’s Republic of China](image)  
![Swiss Agency for Development and Cooperation SDC](image)  
![Ministry of Foreign Affairs of the Netherlands](image)  
![Australian Centre for International Agricultural Research](image)  
![IFAD](image)

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