

**Revised GRANT APPLICATION**  
**Mozambique**

1. Project title: <b>Strategy to increase capacity to comply with SPS and retailers' agrifood protocols to facilitate exports</b>	
2. Requesting government/agency or private body	<p>The project is requested by the Ministry of Industry and Commerce (MIC) and by Frutisul, the Southern Mozambique Fruit Growers Association.</p> <p>The MIC stakes in trade and SPS issues are very high as it is under this ministry's authority that are the institutions with the mandate to promote exports and with the mandate to develop standards and systems to guarantee food quality and safety. Thus the motivation to request this project. FrutiSul, as a commercial organisation, has an essential role in promoting the development of the fruit industry. Having identified standards as one of the key obstacles to this development, FrutiSul is requesting, jointly with the MIC, support from the STDF for this project.</p>
3. Collaborating government(s)/agency	<p>Several government institutions, private bodies and non-governmental organisations will collaborate in the implementation of the project.</p> <p>Overall project management will be the responsibility of the two requesting institutions: the MIC and FrutiSul. These two institutions will set up a system to oversee the implementation of all project activities including the performance of the institutions with a role in the project.</p> <p>The Ministry of Agriculture will be responsible for the implementation of key project activities:</p> <ul style="list-style-type: none"> <li>• The GPSCA<sup>1</sup> will be responsible for overseeing the dissemination of the project materials through the website of the Horticulture Working Group.</li> <li>• The Department of Plant Health (secretariat of the IPM Working Group) will be responsible for overseeing the development of the pesticide management database.</li> </ul> <p>The Provincial Directorates of Agriculture are involved in the monitoring of two of the pilot projects (those managed by Frutimel and Abiodes).</p> <p>The National Standards Organisation (INNOQ<sup>2</sup>), under the Ministry of Industry and Commerce, will participate in the training initiative for auditors by releasing for training its technicians and by participating in the certification of the pilot projects.</p> <p>Two NGOs will be responsible for the management of pilot projects:</p> <ul style="list-style-type: none"> <li>• TechnoServe, whose mission is to support business to end rural poverty, will manage one of the pilot projects. TechnoServe will be responsible for the implementation of safety management systems adapted to an out-growers network.</li> <li>• ABIODES, which supports projects in the fields of organic agriculture, biodiversity and sustainable development, will be responsible for the implementing project activities in a smallholders' project is financed by the European Commission (Multi-</li> </ul>

<sup>1</sup> Office for the Promotion of the Commercial Agriculture

<sup>2</sup> National Institute for Standards and Quality

	<p>Annual Programme for Food Security).</p> <p>Two companies, Citrum and Frutimel will be managing two other pilot projects:</p> <ul style="list-style-type: none"> <li>• Citrum will be responsible for implementing a safety system (EurepGap) for its citrus production operations. Given that many of the criteria of the safety protocols involve workers welfare, NGOs, which collaborate regularly with Citrum, will also participate in the implementation of some of the protocol's actions. Citrum has links with TechnoServe from which it receives technical assistance and partners NGO's such as the Swiss charity Helvetia and Habitat for Humanity with which it collaborates in the implementation of development projects.</li> <li>• Frutimel will be responsible for the implementation of safety systems in a honey production project it is managing. This is an apiculture project involving a large number of smallholders and financed by the European Commission (Multi-Annual Programme for Food Security).</li> </ul> <p>Finally, the Delegation of European Commission in Mozambique will be involved with this project as it the body in Mozambique responsible for financing two of the pilot projects selected: those managed by Frutimel and Abiodes.</p>
<p>4. Project objectives  <u>Attach</u> description of project background and rationale.</p>	<p>The key constraints to compliance with SPS standards are the lack of technical knowledge about them and the absence of national certification capability. International SPS standards and especially those required by the European legislation are quite complex and often it is unclear how to implement certain requirements. To facilitate compliance with these requirements, large buyers have developed their own protocols which they now impose to their suppliers. These standards are, in fact, an interpretation of the SPS requirements of international legislation, including CODEX. They embody the requirements of good agriculture and manufacturing practice (GAP and GMP) and also of HACCP principles.</p> <p>Given that trade in agricultural goods is dominated by these large buyers, producers wishing to access foreign markets should comply with the standards defined or accepted by them. For these reasons, the project is designed to improve compliance with the private commercial standard EurepGap and with the Organic standard.</p> <p>Public and private authorities in Mozambique have very little knowledge of EurepGap and Organic standards requirements. The widespread belief is that these are very complicated and costly standards to meet. For that reason, the project aims to equip local officials and technicians (both public and private) with the knowledge and skills necessary to assist producers seeking compliance with international standards. Similarly, the project intends to increase the country's certification capability by training auditors. The development of four pilot projects will provide those being trained with practical cases, and will also serve to demonstrate to international buyers and to other interested producers, Mozambique's capacity to produce agricultural products certified to internationally recognised standards. The key objectives of the project can be summarised as follows:</p> <ul style="list-style-type: none"> <li>• To develop the capability of technicians to provide assistance in the standards domain and, in particular in the requirements of EurepGap and Organic Agriculture. These technicians will have the expertise to guide producers through the implementation of quality systems and protocols.</li> <li>• To establish a national certification company. The first step in establishing such a company is by forming local auditors. A public auditor from the National Standards</li> </ul>

	<p>Organisation will be formed thus building the certification capacity of this institution.</p> <p>However, for this institution to be able to certify it will have to be accredited. Given that this procedure may take some time, and to accelerate the process, private auditors will also be trained. Through an agreement with an Accredited Certification Body accredited for EurepGap and Organic Agriculture, one of these auditors will be able to conduct inspections and certify production.</p> <ul style="list-style-type: none"> <li>• To certify the production of pilot projects. The pilot projects will allow technical assistants and auditors to acquire the necessary practical training but they will also result in having EurepGap and Organic certified products being exported from Mozambique. The pilot projects will also provide the “proof of principle” by being the first EurepGap certified exporting companies. The pilot projects will serve as demonstration sites for new projects/companies wanting to improve standards compliance or to obtain certification. Three to four pilot projects will be selected to represent a wide range of situations: a large commercial estate, a commercial estate with out-growers and two smallholder projects.</li> <li>• To produce operational manuals that will facilitate implementation of the standards for other companies wanting to be certified.</li> <li>• To develop a pesticide database which will define strategies for compliance with international pesticide regulations and namely with EurepGap regulations. These will take the form of protocols for specific crops which can be developed using a round table approach with the working group members. These will also involve collaboration with other regional groups working on the same topics.</li> <li>• To disseminate project information about standard requirements, implementation procedures and costs through the Mozambican Horticulture website. Project information will be made available through the website being developed by the Horticulture Working Group. This website is at an advantaged development stage and was set up with the objective of centralising all information pertaining to the horticultural sector. The standards component of the website to be developed will be focal point for information on standards and international protocols. It will provide information to any new venture on how to obtain an internationally recognised certification including procedures, investment, technical assistance needs and contacts and certification costs. It will also be a source of information for the public sector which has to be fully aware of the requirements of commercial standards and which has to liaise with the private sector to set up an effective Food Safety Control System.</li> </ul>
<p>5. Project activities Itemise main elements here and <u>attach</u> a detailed work plan, dissemination plan and evaluation plan.</p>	<p>To achieve the above stated objectives, the project proposes that the following activities are completed:</p> <ol style="list-style-type: none"> <li><b>1. Build capability for technical assistance</b> Train private technicians and public extension officers to provide support for implementation of EurepGap and Organic Agriculture.</li> <li><b>2. Build local certification capability</b> Train inspectors and auditors Set up a scheme for local certification through an internationally accredited certification body</li> <li><b>3. Implement certification plans and certification of production in pilot</b></li> </ol>

	<p><b>projects</b></p> <p>Develop certification plans for each pilot project  Provide technical assistance for implementation of the protocols  Provide financial assistance for protocol implementation  Prepare operational and costs manuals for each section of the protocols</p> <p><b>4. Develop pesticide management database</b></p> <p>Review available information on pesticide management including authorised, banned, LMRs, frequency of application, storage, handling ...  Develop user friendly database.</p> <p><b>5. Development of an information system on standards</b></p> <p>Prepare all project information for upload into Mozambique Horticultural website.  Website design and integration of new pages.</p>
<p>6. Private/public sector co-operation  Detail the arrangements for public/private sector co-operation, if any, in the project.</p>	<p>The management of each project activities, from PMU level down to the management of each of the pilot projects and to the information building and dissemination activities, has been ascribed to teams comprising public and private sector members. Most of them are based on already established arrangements of private/public co-operation and has the aim of reinforcing them.</p> <p>Overall project management will be the responsibility of a public (MIC) and a private (FrutiSul) institution. These two organisations have already established close links and are good anchor points for a project involving the public and private sector. A Project Management Unit (PMU) comprising members of both institutions will be set up to administer the project. The PMU will be responsible for ensuring that all project activities are being implemented and that monitoring reports are developed according to project schedule.</p> <p>The Horticultural Task Force will supervise the dissemination of project information. This Task Force is led by the GPSCA, which, coupled with the two farmer/investors associations, provides the core of an important public/private sector partnership with the vital functions of co-ordination, advocacy and management of initiatives for the sector.</p> <p>The IPM working group, which will be responsible for the pesticide management database, is another inter-ministerial and multi-stakeholders group which is a forum for public/private sector co-operation.</p> <p>The pilot projects will be managed by private companies and NGOs. However, one of the criteria for the choice of some of the pilot projects has been the involvement of public institutions with these projects. This is the case of the two projects financed by the European Commission and managed by Frutimel and Abiodes in which the public sector has an advisory and monitoring role.</p> <p>Lastly, one important element of co-operation is embedded in the design of the training activities, which benefit agents in the public and private sector. It is intended that, through the collaborative work that the training activities (including the practical component within the pilot projects) will entail, the beneficiaries agents and sectors will be able to interact and work together to ensure that Mozambique builds the necessary capacity to comply with standards.</p>
<p>7. Partner institutions involved</p>	<p>UNCTAD will assume the role of project manager. The project management will carry out a variety of measures to ensure the effective implementation of the project. These</p>

<p>If appropriate, identify STDF partner institutions who will be involved and describe the nature of that involvement.</p>	<p>include:</p> <ul style="list-style-type: none"> <li>▪ Vertical linking agencies will hold coordinating meeting quarterly to enhance information exchange;</li> <li>▪ Vertical linking agencies will set up a reporting system to report once a month;</li> <li>▪ Internal monitoring evaluation and problem solving will be reinforced when judged to be weak;</li> <li>▪ Develops and checks and realizes objectives based on information about the demands of the beneficiaries;</li> <li>▪ Make sure that expectations and requirements of beneficiaries, the project objectives imparted, realized, checked and adapted;</li> <li>▪ Report on how existing resources are used effectively and efficiently (financial resources, information, supplies, services and other resources);</li> <li>▪ Present expenses to government with receipts;</li> <li>▪ Assume the responsibility of identifying, selecting and recruiting consultants and certification bodies to implement the project's activities, including assessing the quality of training materials as well as the effectiveness of the methodology used by trainers to communicate the know how to the beneficiaries.</li> </ul>
<p>8. Project outputs Specify outputs clearly and in detail and show relationship to key STDF objectives including capacity enhancement, improved market access and trade opportunities, poverty reduction, linkages to country or regional program development priorities, public-private co-operation, innovativeness, demonstration effects, etc.</p>	<p>The project builds the capacity of public and private organisations to meet official and commercial standards and improves market access. For that reason, the project fits into theme 2 defined by the STDF. It will also develop a website for information sharing and include technical assistance activities fitting into theme 3 of the STDF. The key outputs are described below.</p> <ul style="list-style-type: none"> <li>• <b>Enhancement of the public and private capacities to provide assistance for standards compliance</b></li> </ul> <p>To enhance the capacity to meet standards requires the training of technical assistants. For that reason, the project will train 32 private and public technicians in EurepGap or Organic Agriculture. This training will greatly enhance the competence of these technicians to understand not only these particular commercial standards but also GAP, GMP and HACCP principles.</p> <p>These are the fundamental tools to understanding how to implement international SPS requirements at production level. Rural extension officers may use this knowledge to advise smallholders and thus increase quality of produce for local markets and consequently improve human and plant health situation in the country.</p> <p>Thus, the project fulfils not only the STDF requirement to enhance compliance capacity, but also that to enhance capacity in the public and private sector simultaneously.</p> <ul style="list-style-type: none"> <li>• <b>Establishment of national certification capacity</b></li> </ul> <p>The second output of the project will be the establishment of national certification capacity. Two private auditors will be able to certify EurepGap and Organic Standards. (Subsequently the trained auditors may decide to complete training in other protocols and acquire the qualifications necessary to certify also several other protocols such as Nature's Choice, BRC (British Retailers Protocols), social responsibility, etc).</p> <p>In the first phase, these will act through the external CB. However, this scheme will allow for certification to start immediately at affordable prices and national auditors to start gaining professional experience. This slim structure will ensure certification in the long term. The model proposed will allow an auditor to be working on certification on a part-time basis. Without creating a heavy and costly structure to maintain, the risks of</p>

	<p>collapse are minimised.</p> <p>This strategy will guarantee the long term impact of the project as is precisely the objective of the STDF and not just a fire fighting approach. This output is measurable in that the trained auditors will need to be accepted by the CB as their own auditors. The competence of the auditors trained by the project will be evaluated by the CB.</p> <p>After having acquired the necessary skills and accreditation, the auditors may decide to become independent from the External CB and form a national company.</p> <ul style="list-style-type: none"> <li>• <b>Enhancement of the certification capacity of the National Standards Organisation</b></li> </ul> <p>Furthermore, the project will enhance the capacity of the National Standards Organisation (INNOQ) to provide certification for EurepGap and Organic standards. Although the INNOQ will not be able to certify these standards in the short term, the training received by the auditor may be used in the future when the institute is accredited. Additionally, the knowledge of the requirements of the commercial international standards is useful for the development of national Good Agricultural Practice (GAP) standards. This again addressed two of the objectives of the STDF: (1) to enhance public and private capacity simultaneously (2) to act upon the long term.</p> <ul style="list-style-type: none"> <li>• <b>Certification of the production of pilot enterprises/projects representing various production systems</b></li> </ul> <p>The key output of the project will be the certification of the production of the selected projects with international standards. Within the first year, the project will produce the first EurepGap certified company in Mozambique. Two of the selected pilot projects, Citrum and EAM, are in the position to implement the necessary quality systems during the first year of the project and to obtain certification.</p> <p>Certification will immediately improve market access for these companies whose production is, at present, restricted to non-GAP European markets (i.e. markets which do not require EurepGap certification). Certification will not only guarantee access to GAP markets but will also increase the export prices.</p> <p>By certifying these companies, the “proof of principle” will be achieved and will be very important for Mozambique’s international credibility as a country with capacity to comply with international agri-food standards.</p> <p>The pilot projects will also be important as demonstration tools. Other producers, who wish to export, will be able to learn about how standards are implemented and use that experience for their own benefit.</p> <p>The pilot projects were chosen with the aim of providing a model for standards compliance in a variety of circumstances. Thus, they will act as demonstration camps of standards compliance for a large commercial company largely using contracted workers, for an exporting company sourcing a large part of its production from out-growers and for organisations of small scale producers oriented towards the export market.</p> <p>This project will help STDF reach three of its objectives: to enhance the capacity to meet SPS standards, to gain access to international markets and trade opportunities, and to create projects which will be used as demonstration tools. The pilot projects represent development models which take into account the objective of improving exports whilst providing income opportunities for the rural poor.</p> <p>Finally, the certification of production of pilot projects will be a good measure of the</p>
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overall success of the project, thus fulfilling the STDF requirement that its project outcomes be measurable.

- **Operational manuals adapted to various production systems**

Another project output will be the operational manuals produced by the technicians assisting the pilot projects. As mentioned previously, official and producers have little knowledge of EurepGap and Organic standards requirements. For that reason, the project will produce concise and practical operational manuals that will guide the application of these standards at field level. Procedures as well as costs will be clearly laid out in the operational manuals produced. In this fashion, other producers will have access to all information about how compliance was achieved.

This addresses two other objectives of the STDF: filling in gaps in SPS information and making the results of the project available for wider use.

In addition, the operational manuals are one of the outputs which will allow the evaluation of the success of the project (the STDF states that projects should have clear, measurable outcomes against which an evaluation of their success can be made). The manuals will allow the evaluation of the capacities acquired by the technical assistants trained by the project and will also be a means of monitoring the implementation of the project.

- **Database compiling information about pesticide management.**

Given the importance of pesticide management for commercial standards and for European legislation, including MRL and banned pesticides, and the lack of information about them in Mozambique, the project will develop a database which will provide guidelines on pesticide management to respect international legislation.

This also addresses the need (highlighted by STDF) to fulfil gap in the information about international SPS standards.

- **An information system on standards available in the Horticulture website**

The results of the project will be made available through the website of the Horticultural Working Group for possible wider use. This addresses the problem of the accessibility of SPS information, which STDF seeks to address as well as the possibility for project replication.

Website visitors will also have access to the contacts technical assistants with the required expertise and auditors.

- **Increase welfare of employees and out-growers welfare at pilot projects**

Through the implementation on safety systems in the pilot projects, company employees, out-growers and smallholders will receive training in first aid, pesticide handling, operation of dangerous or complex equipment and IPM.

This output follows the STDF objectives by contributing to the enhancement of workers and smallholder capacity in the SPS domain.

The implementation of the welfare requirements of protocols, such as safety procedures, improvements of toilet facilities and living quarters, will also improve the livelihoods of workers.

- **Reinforcement of the capacity of FrutiSul.**

The capacity of FrutiSul, a producer' organisation will be enhanced through the support

given to their role in the PMU. This is an important element of the project given the importance of producers associations in the development of the agricultural sector.

- **Reinforcement of Public and Private links**

The project will be jointly managed by a public and a private organisation (MIC and FrutiSul). Additionally, it will involve working groups which already play an important co-ordination role between public/private sectors. Finally, all of the activities, including most pilot projects, involve members of the two sectors. The project will therefore reinforce the links between them and fulfil STDF requirements for this type of co-ordination effort.

Linkages to country or regional program development priorities

The analysis of the key documents defining government policy indicates that the objectives and outputs of the proposed project are consistent with policy objectives.

Mozambique national agricultural policy objectives include food security, sustainable economic development, reduction of the unemployment rate, and poverty reduction. Strategies to achieve these objectives include improvement of productivity and insitutional and human resources development. According this policy, quality improvements and development of standards are among the priorities.

Another important element of the policy framework is the Plan for the Reduction of Absolute Poverty (PARPA) (2001-5). PARPA outlines the national strategic vision for reducing poverty, main objectives, and key actions. The key strategy is to improve skills and opportunities for all Mozambicans, especially the poor. The main aim of rural development is to increase income generating opportunities particularly in the smallholder sector. The outputs generated by the STDF project will include improvement of skills for rural workers participating in the pilot projects, providing models to increaser income generating opportunities by establishing out-grower networks, and providing models for the development of quality management systems adapted to smallholder organisations. Opportunities for rural income will also be created through job creation in export companies.

ProAgri II (National Agriculture development programme) is part of a broader perspective to improving agriculture as to play the role of providing for the majority of the households, particularly rural households the necessary means to pursue the goal of reducing poverty and food insecurity. Some components of Proagri include components that related to the development of standards, technical regulations and codes of practice. The component which aims to promote smallholder agriculture identified as key actions the improvement of quality standards and the provision of better information on market requirements to promote access to the international markets.

According to the DTIS, the government priority to eradicate poverty will only be achieved is Mozambique's economy grows. This growth depends necessarily on export growth as the internal market is too small and purchasing power low. Mozambique development strategy favours those initiatives which achieve export growth while ensuring that this growth provides economic opportunities and higher incomes for the poor. Public and private sector must address trade barriers in a collaborative manner. This process will enable domestic and foreign investors to take full advantage of opportunities and increase exports and create jobs on a broad base which is essential for poverty reduction

The project strategy is consistent with the priorities identified in the DTIS action matrix.



	<p>SPS issues are considered a major issue to the agricultural sector in the DTIS which identified “compliance with SPS standards and quality norms to guarantee access to the international markets” as one of seven specific measures for the development of the sector. The two recommended actions to achieve this objective are” to strengthen public institutions and publish and make available measures and help private sector comply with international SPS standards”. Among five priority actions identified in the DTIS, three of them are addressed in the project proposal presented here. These are the training of technical officers on SPS standard (which will be the object of the training module in the projects), the investment in the infrastructure necessary for certification of agricultural export products and, the need to assist the private sector in achieving quality standards (GAP) required by distributors. These two actions will be carried out during the implementation of the EurepGap and organic protocols in the pilot projects.</p> <p>The DTIS also recognises the need to promote commercial agriculture based on large commercial farms and as well small farmers. To fulfil that objective the study highlights the need to “develop institutions and systems that better certify quality standards”. Developing such systems is precisely one of the key objectives of the proposed project. Within the objective of promoting commercial agriculture, the DTIS also recommends that actions be taken to develop farmer’s organisations. The proposal to give FrutiSul a role in the management of the project was designed precisely with the aim of strengthening this producer organisation.</p>
<p>9. Project Impact Specify the expected impact the project will have on market access, the SPS situation and poverty reduction. Identify how the project will fit with existing bilateral or multilateral donor projects and programmes, examine the sustainability of the proposed action and, where possible, suggest where the project may be replicated</p>	<p>The project has impacts at several levels: the activities at the pilot project level benefits directly those involved with them, their families and the communities in the surrounding areas. The training activities, the information system and the demonstration effects of pilot project have broader impacts are they will allow the replication of the project impacts. The different impacts of impacts are analysed below.</p> <ul style="list-style-type: none"> <li>• <b>Improvement of market access</b></li> </ul> <p>The project focuses on particular commodities and namely on the horticultural sector. The development of this sector is an important strategy to diversify away from traditional raw materials to higher value products. As stated in the STDF business plan, this is precisely the sector where standards compliance is more difficult and costly. It is therefore foreseeable that a project improving standards compliance in this sector will have the greatest impacts on market access.</p> <p>Considering the growing importance of large retailers in trade, improving compliance with their standards requirements is the best route to guarantee market access. By developing the capacity to meet EurepGap and Organic Standards (Organic standards are official standards but fully accepted and marketed by supermarkets), the project will therefore represent an important contribution to opening up of new markets.</p> <p>In terms of its impact on market access, the project will firstly guarantee the certification of the production of the pilot projects. Given that the number of exporters at this moment in Mozambique is extremely reduced, guaranteeing that selected Mozambican company are certified and able to export with EurepGap or Organic certification is of great value for the country.</p> <p>Additionally, the training of government, private or NGO technicians which will be able to implement their knowledge in farms seeking standards compliance and certification and will be able to train other technicians within the extension services of the Ministry</p>

	<p>of Agriculture, together with the possibility of using the pilot project as demonstration camps and the project documents as guidelines for implementation, constitute the necessary conditions for the replication of the model. This will enable the increase in the number of certified companies and facilitate market access at a larger scale.</p> <ul style="list-style-type: none"> <li>• <b>Improvement of the SPS situation</b></li> </ul> <p>In terms of the SPS situation in the country, the project largest contribution will be in terms of filling information gaps. Key areas where there is lack of information are the farm-to-fork approach and traceability and pesticide residue levels. This information is important to provide guidance to the Ministry of Agriculture on how to implement these requirements which constitute critical requirements in international markets. This information will allow the government to develop more effective Food Control Systems and, thus, improve the SPS situation in the country.</p> <p>The training of trainers in the Ministry will allow the training of the extension officers which may implement safety standards in the farms they assist. Even if not with the final end of certification, the implementation of safety rules at farm level will improve the safety of food consumed within the country.</p> <ul style="list-style-type: none"> <li>• <b>Poverty reduction</b></li> </ul> <p>The project will have a direct impact in poverty reduction at the pilot project level. Two of the selected pilot projects involve a large number of small scale farmers. Frutimel's project, for instance, involves 680 farmers with their families which corresponds to 3400 people. Standards improvement and, consequently, improved market access, will guarantee the success of these ventures and directly increase the income of participant farmers and their families.</p> <p>Two other projects involve larger exporters. The importance of supporting exporters for the development of agriculture is recognised in a World Bank report<sup>3</sup> on horticulture in Mozambique which states that involvement of the family farming sector will be enhanced if support is given to exporters. This can be achieved precisely by helping producers establish out-grower networks. In the case of the project managed by TechnoServe, the project will assist the producer in identifying best-practices and establishing an out-growers quality system which will allow smallholders involved to access the export market and thus, increase their income.</p> <p>The selected pilot projects will also provide models as to how the benefits of standards compliance and increase market access for one company can trickle down to the local community. As far as Citrum is concerned, for instance, given the number of employees this company has (300) and its social responsibility programme which includes provision of health, housing and access to clean water, the benefits for the local community are clear.</p> <p>The replication of these models, made possible through the training, information dissemination and demonstration role of the pilot projects, will ensure that the impacts on poverty reduction can be multiplied.</p> <p>The improvement of quality standards and certification of producers will also lead to job creation in upstream supply services.</p> <p><b><u>Links to existing bilateral or multilateral donor projects and programmes</u></b></p>
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The STDF project proposal was designed taking into account existing donor programmes, with the objective of avoiding duplication and filling in the existing gaps. There are several projects of support to trade capacity building and facilitation (see Annexes). USAID and FAO, for instance, have supported training courses in the SPS field at regional and national level. The more relevant in the context of SPS are (or will be once approved), those funded by UNIDO and the FAO.

UNIDO has been working in Mozambique in the development of a food action plan for improved processing and food safety. Following previous work, UNIDO is now implementing an integrated programme to improve food safety systems. It addresses weaknesses of the national food system at the policy, institutional and industry levels.

At policy level it supports the development of the legal and regulatory framework for food safety and consumer protection, schemes for accreditation, certification & conformity mark and schemes for inspection, control and testing. These activities will be carried out in close collaboration with the National Standards Organisation (INNOQ).

As part of its institutional strengthening activities, it will support the establishment of a competent authority. It has allocated funds for the upgrading of testing laboratories (microbiology, chemistry and physical, metrology) and food inspection services. One of the laboratories that will be upgraded is the National Lab of Hygiene, Water and Food (LNHAE4) of the Ministry of Health.

Lastly, this project will support the implementation of GLP, GMP as well as HACCP in groups of pilot enterprises.

The Department of Plant Health (Departamento de Sanidade Vegetal), has requested a TCP from FAO for the strengthening of phytosanitary capabilities. The project proposal was submitted a year ago and there is indication from FAO that the project will be approved soon.

The key activities funded by FAO will include review and update of the phytosanitary legislation, training of senior phytosanitary personnel, strengthening of inspection facilities at ports of entry and border post, re-organisation of the pest surveillance programme through the establishment of a pest monitoring system across the country and an information management programme for dissemination of information.

The project presented in this proposal was designed to fill in the gaps in this two key donor programmes. Firstly, the UNIDO's objective of developing food safety control system cannot be completed without addressing control of primary production. In that respect, the STDF will be an important contribution as it will provide the Ministry of Agriculture with the tools to develop that subset of the system. In particular, for the development of food safety legislation, the requirements of the standards applied to primary production should be taken into account.

Another objective of UNIDO's work is to develop the analytical capability of laboratories and namely the aptitude to perform pesticide residue analysis. Pesticide residue analysis is an important element of an official control of food but it is equally an essential pre-requisite for certification with commercial standards. The existing of national analytical capacity will considerably decrease the costs of certification for private producers (which for the time being have to send their samples abroad for

<sup>3</sup> G. Dixie, B, Bjerg, A, Sergeant (2005) Mozambique Horticulture Sector Development Study, World Bank

<sup>4</sup> Laboratório Nacional de Higiene, Aguas e Alimentos

	<p>analysis). On the other hand, the existence of certified producers in Mozambique will provide a source of income for the laboratory and ensure its economic viability.</p> <p>In addition to the umbrella work UNIDO will be conducting in the food safety domain, this organisation will also support pilot projects in the food industry field to implement Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP). The STDF will extend UNIDO's work to primary production by supporting pilot projects at that level.</p> <p>Whilst UNIDO supports the Ministry of Health and the INNOQ, FAO's will place its support on the Plant Health Department, which is responsible for the phytosanitary situation of the country and which constitute an important part of the food safety system UNIDO aims at developing.</p> <p>It focuses on improving the public food control systems which are a key element to guarantee conformity with official international requirements. Importing countries expect exporting countries to provide evidence that they have in place a national food control system that guarantees food safety. However, given that, as was often mentioned in this proposal, retailers are the key international buyers, compliance with their standards is also a necessary requirement. Thus, meeting SPS requirements depends both on producer's capacity to meet standards as in the SPS regime of the country of origin of the exports. Consequently, the STDF project proposal directly complements UNIDO and FAO's work in the SPS domain.</p>
<p>10. Project inputs Specify total project cost. <u>Attach</u> detailed breakdown of proposed uses of funds.</p>	<p>Total requested from the STDF: 600,000 USD</p>
<p>11. Non-STDF contributions If appropriate specify any financial contributions expected from sources other than STDF.</p>	<p>The two requesting agencies, the MIC and FrutiSul, will make available facilities and other resources necessary for successful implementation of the project.</p> <p>In particular, they will:</p> <ul style="list-style-type: none"> <li>- Provide services of support personnel needed to ensure successful completion of the project, e.g. organisation of the training courses</li> <li>- Make available office space and facilities for use by the PMU, consultants from training and certification bodies and for the project activities (namely training activities).</li> <li>- Identify and release for training those officers for whom training is required</li> <li>- Exempt from taxes/duties all equipment and supplies provided by this project.</li> </ul> <p>The managers of the pilot projects will:</p> <ul style="list-style-type: none"> <li>- Appoint and provide technical assistant to the project.</li> <li>- Contribute to the acquisition of material and rehabilitation of existing facilities to meet the requirements of the implementation plan</li> <li>- In some cases, they will contribute by assisting in the organisation of field visits during the training course.</li> </ul> <p>The GPSCA will:</p> <ul style="list-style-type: none"> <li>- Provide the technician to design the subset of the website which will be dedicated to the project and to upload the new materials</li> <li>- Maintain the website</li> </ul>

	<p>PODE may contribute to the STDF project by providing matching grants to pay for activities to enable export orientated companies to conform to standards. This may include for instance the training of company employees or out-growers as required by the EurepGap portocol.</p>
<p>12. Timetable          Show proposed commencement and conclusion dates (maximum project duration two years)</p>	<p>The project is planned to start in November 2005 with set up of project management unit, recruitment of training bodies and selection of beneficiaries.</p> <p>The conclusion in planned for November 2007. See annex for timetable details.</p>

Revised GRANT APPLICATION  
Mozambique - ANNEXES

## ANNEXES

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## 1. Description of project background and rationale

Agriculture is a key sector for economic growth and poverty reduction in Mozambique. It represents 20 per cent of the country's GDP and employs over three quarters of the population. Most of it is traditional, smallholders' agriculture, being the main activity for people living in rural areas.

Commercial, export-oriented agriculture occupies only 10 per cent of the agricultural area. Production and exports are constrained by several significant obstacles. There is a lack of infrastructure and of a trading network and, in particular, of logistic transportation and storage infrastructure. Other constraints that need to be addressed include the lack of access to finance and bureaucratic procedures. If these issues are addressed, however, Mozambique has a very strong agricultural potential with 36 million ha of arable land of which only 10 per cent is currently used. The total potential irrigated area is 3.3 million ha.

To access new markets, however, products do not only need to be cheap and in sufficient quantity. They need to fulfil a number of international sanitary and phytosanitary requirements. Consequently, both large private producers and smallholder projects require certification of their production according to internationally accepted standards.

In the case of Mozambique, although there are several potential markets to target such as the Middle East and Japan, Europe remains the main outlet for its products because of already existing market links. Production destined to the European market need to fulfil the requirements of European Legislation. That is the reason why this project focuses on European Requirements, which are, in fact at the present moment, the key concern of Mozambican producers and government authorities.

An important aspect of the European requirements is that new legislation places the responsibility for food safety on the importer. For that reason, most importers are adopting the farm-to-plate approach and require compliance with commercial or official protocols which incorporate SPS requirements and are compliant with EU official requirements. These protocols provide an assurance to the importer even if the food control safety structures in the country are not in place. They also provide the farmers with a very clear set of rules to attain safety and a certification procedure which provides

confidence to the buyer. They are, in fact, considered the best instrument to ensure compliance with European requirements. Within the existing standards, two of them have been considered of particular interest for Mozambique: the EurepGap and Organic Standards. The project has been designed to increase compliance with these two standards.

EurepGap is a retailers' protocol which has gained considerable importance in recent years. This private certification system was developed by 22 large European retailers to encourage producers to implement safety standards. Given the growing role of large supermarkets in importing food into Europe (these retailers currently represent around 80 per cent of imports), the EurepGap protocol has assumed an even greater importance.

EurepGap addresses both consumer concerns and the key requirements set by international and EU legislation. The protocol is based on food safety criteria, derived from the application of HACCP. It also addresses animal welfare, environmental protection and worker health, welfare and safety but the main focus is on food safety and traceability. The key concern is pesticide use. It imposes restrictions in terms of product choice and requires decisions based on integrated pest management practices, training, safety for applicators, personal protection equipment, application equipment and infrastructure for storage. There is also a set of rules concerning traceability and maintenance of records documenting site history. EurepGap introduces the need for risk assessments and management plans, all of which must be clearly documented.

EurepGap can, therefore, be understood as a set of guidelines that will not only ensure compliance with the requirements of large buyers but also as a set of guidelines to fulfil official EU requirements. Additionally, EurepGap is a standard based on the implementation of Good Agricultural Practice and HACCP analysis. It is also, therefore, an HACCP system developed for the production of some agricultural products. In that measure, it is also a system compliant with CODEX requirements.

For these reasons, the project will focus on ensuring compliance with the EurepGap protocol. However, in order to increase the range of types of farming systems and products that can be certified, the project also aims at increasing certification capacity in Organic Agriculture.

Organic agriculture has a strong potential in Mozambique due to the favourable natural conditions, good soil fertility and low incidence of pests. Additionally, organic production is particularly interesting because many low-input traditional agriculture systems in Mozambique are *de facto* organic systems. Terms such as "organic by default" have been coined to address these situations. Organic standards have the added advantage of covering all crops and almost all livestock. Standards for fish farming, bee-keeping and harvesting of wild products are increasingly being developed. Of the products with good potential for organic production in Mozambique, an ITC report<sup>5</sup> identified spices, nuts, herbs, fruits and wild products (e.g. honey, wax).

Organic production is a holistic approach to agricultural production, which emphasises biological processes and minimises the use of non-renewable resources. The focus of

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<sup>5</sup> UNCTAD/WTO (2002) Organic Agriculture, a viable option for Mozambique?

organic production is on environmental conservation as well as on food quality and safety. Organic standards for plant production typically include criteria for choice of seeds and propagation material; for selection and management of organic fertilizing materials; and for selection and use of products for pest, disease and weed control. (The use of synthetic fertilizers and pesticides and of genetically engineered organisms is prohibited). The standards have been progressively strengthened to include issues of landscape, contamination control and soil and water conservation. In the future they may also come to include criteria for labour conditions and other social issues. Processing, packaging and traceability criteria usually include requirements to ensure separation of conventional and organically produced products, and criteria for additives and processing aids. Organic standards address the food safety concerns also addressed by EurepGap.

As mentioned before, many small holders already apply techniques accepted in organic farming systems. However, it is not because no pesticides are used that the production complies automatically with organic standards. For that reason, even if, in some cases, conversion may be easy, it still requires a compliance effort and certification to an organic standard.

It was not until the 1970s, that organic farmers' associations wrote their own standards and certification systems were developed. Nowadays, several international bodies, associations and governments have formulated their own organic standards. The IFOAM<sup>6</sup> Basic Standards (IBS), developed in 1980 and revised biennially, serves as a guideline, on the basis of which public and private standard-setting bodies can develop more specific organic standards. For exports to the EU, producers have to comply with EU Regulation 2092/91 adopted in 1991, which defines the organic production method in Europe.

To reinforce how important it is for exporters to comply with standards such as the ones described above, it should be noted that, despite the stringency of European requirements, they follow largely the guidelines set by CODEX. It is also foreseeable that in the near future, even less demanding markets will tighten their controls. Therefore, compliance with European standards will also facilitate access to other markets. Additionally, given that, increasingly, large multinational importing entities are dominating the market, and that these are in many cases European, it is very likely that protocols such as EurepGap or equivalent be required for any export and any country.

The reasons presented above justify that the project focuses on developing a mechanism to improve the compliance of agrifood producers with these two standards and to facilitate the certification process.

Firstly, to implement these standards, producers need training on their requirements and procedures implementation. The consultation with stakeholders revealed that there is a lack of technical expertise about the requirements of the protocols. Thus, one of the objectives of the project is to train private technicians and public sector officers in HACCP principles, EurepGap and Organic Agriculture.

Secondly, there is the issue of certification. One important constraint, identified during the consultation with national stakeholders, is the absence of local certification

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<sup>6</sup> International Federation of Organic Agriculture Movements



companies for EurepGap and Organic Standards. According to ABIODES, an NGO dedicated to the promotion of Organic Agriculture, Biodiversity and Sustainable Development, several initiatives in the field of organic agriculture have been hampered by the lack of national expertise and national certification schemes. Projects and exporters in Mozambique have had to resort to foreign companies for certification. However, these services are very often too expensive. One way to address this problem would be to promote the creation of local certification companies which can provide certification services to the farmers at adequate prices.

The process of establishing a certification company is a lengthy one. Certification bodies wishing to certify compliance with EurepGap need to be accredited by FoodPLUS, the company which serves as the legal owner of the protocol. For organic products to be accepted in Europe they would either have to be certified by a certification body accredited in the EU or in a country with a regulation and certification systems recognised as equivalent to the EU. Because there is at present no organic regulation in Mozambique, only the first option is possible at this point. (The Mozambican government is currently developing a strategy for organic production which includes the development of the necessary legislation. This is, however, a process which, together with the request for equivalence at EU level, will take time).

Therefore, the proposal in this project is to train auditors who will work, in a first phase, for an external Accredited Certification Body. The benefits of such scheme are that certification can start fairly quickly; that the costs would be significantly lower than if a foreign company were recruited and that the auditors will have gained the know-how and, within time and market size justifying it, they will be able to become independent from the CB and create a Mozambican Certification Body.

Subsequently, this proposal suggests that four pilot projects are selected for implementation of the EurepGap and Organic Standards. The goal is to certify the production of these projects or companies. Through these pilot projects, the technical assistants trained and the auditors will gain the necessary practical experience. Additionally, resulting from the experience of these pilot projects, operational manuals will be produced that will facilitate the replication of the work carried out. The operational manuals will also allow the monitoring of the project implementation. The pilot projects will serve as demonstration sites for new projects/companies wanting to improve standards compliance or to obtain certification.

The pilot projects that were preliminarily selected are companies/projects which are in a position to fulfil the requirements of the protocols EurepGap and Organic Standards. Moreover, they represent a wide range of situations: large commercial estates, commercial estate with out-growers, smallholder organisations. For EurepGap certification, two projects in the horticultural sector were selected: Citrum, a large citrus producing plantation and EAM, a mango company sourcing some of its production from out-growers (this project will be managed by TechnoServe). For organic certification, two small holder projects were selected: one geared towards citrus production (managed by ABIODES) and another aiming at improving honey production (managed by Frutimel).

The choice of the products was based on several criteria. The government has identified

diversification into value added products as one of the factors for the development of the agricultural sector. This has led in recent years to the growth of fruit and horticultural and flower production. Fruit and horticultural production have great potential in Mozambique with over 550,000 ha in the Beira corridor with favourable agro-ecological conditions for high value horticulture exports with the potential to generate revenues up to USD 2.75 billions per year through both commercial and smallholder production (Technoserve, 2003).<sup>7</sup>

Recently, Mozambique has seen a wave of new investments in the field of horticulture. The South has seen the redevelopment of large-scale state farms<sup>8</sup> through Foreign Direct Investment and Joint Venture companies. All these have given a new visibility to the industry. This is the case of Citrum and EAM.

Additionally, international donors are financing several projects to support smallholders, organise small-scale production, improve quality and facilitate access to export markets: this is the case of the small scale citrus project selected.

Moreover, the STDF business plan argues that it is precisely in this high value crops that standards compliance is more important, which justifies the choice of these crops as primary targets for intervention by the project.

As far as honey is concerned, recent studies carried out by the External Market Task Force, have concluded that honey is one of the products which South Africa is importing from outside the region and in the production of which Mozambique can be competitive. Additionally, there are preferential tariffs for this product. Moreover, it is one of the products identified as having a potential for organic production. These conditions place honey in a good position to receive STDF support. Given the existence of a donor funded project, involved small holders with an export oriented strategy, the Frutimel project was the right candidate for the STDF project. Its objective is to increase honey yields and quality and export to South Africa and, in subsequent phases to other markets, including the European.

Supporting a large commercial company such as Citrum has different types of benefits. Citrum is the only company exporting citrus to Europe. Firstly, in a country where commercial agriculture is still incipient, supporting it so that it can be the first EurepGap certified company in Mozambique, directly benefits the image of the country and improves the trade balance. Additionally, support to Citrum will generate new market opportunities for the company which will in turn create jobs. According to the World Bank<sup>9</sup>, experience in Africa has shown that high value exports in the horticulture field create additional jobs in the value added chain, such as in the supply of inputs, packing, grading, quality control, logistics. The number of jobs created in relation to capital investment is relatively high, particularly when compared with large scale industrial projects. The job creation occurs in rural areas. In short, the horticultural export sector offers the potential to generate significant rural non-farm employment opportunities.

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<sup>7</sup> TechnoServe (2003) Assessing the competitiveness of the horticultural sector in the Beira Corridor, The International Finance Corporation, The W.K. Kellogg Foundation, USAID, Final (Phase II) Report.

<sup>8</sup> After independence, the agricultural development model was based on large state farms This model was abandoned in the 1990s

<sup>9</sup> G. Dixie, B, Bjerg, A, Sergeant (2005) *Mozambique Horticulture Sector Development Study*, World Bank

The project supporting EAM, a commercial mango producer, brings a different set of benefits. This company is establishing an out-growers scheme. Involvement of the family farming sector will be enhanced if support is given to exporters, e.g. helping them identify best practices for out-grower production and market research on new crop opportunities and in establishing out-grower networks.

Finally, supporting the two other pilot projects selected will directly benefit a large number of small scale farmers. Frutimel's project, for instance, is a large project involving 680 beekeepers with their families which represent around 3400 people.

## **2. Detailed work plan**

### **2.1 Set up of the Project Management Unit**

The Ministry of Industry and the FrutiSul will be supported to manage the project. For that purpose, a project manager will be hired who may subsequently be integrated within FrutiSul. Materials and equipment necessary for the management of the project will also be acquired.

### **2.2 Build capacity for technical assistance**

The project will train private technicians and public extension officers to provide support for implementation of EurepGap and Organic Agriculture.

- **GAP/EurepGap Training course**

A training course will be organised in Good Agricultural Practices. The training will be conducted by a specialised training company. The main objective will be to provide information on the compliance criteria of the key standards which require compliance with Good Agricultural Practice and HACCP principles and, in particular with the EurepGap protocol.

The training course will capacitate the technicians to provide technical assistance to those producers wanting to implement GAP and in particular EurepGap, in their farms.

Participants will be selected in the public and private sector (companies, associations and NGOs). Some of these technicians will be selected to collaborate with pilot projects/companies in the implementation of the necessary measures that will ensure compliance with the EurepGap protocol.

Place of activity:

Mozambique

**Beneficiaries:**

Up to 16 private and public administration technicians with qualifications in the field of agriculture. Selection will be based on qualifications.

Duration of activity:

10 days in-house training

+ Practical in-farm training

- **GAP/Organic Training course**

The objective of this training course is to enable technicians to provide technical assistance to those producers or their associations wanting to implement GAP and, in particular, those wanting to convert to organic farming.

This training course, which will be conducted by a specialised training company, will have a similar format to the EurepGap course. It will cover the basic concepts of Good Agricultural Practices, and will subsequently focus on the key compliance criteria for Organic Agriculture. The training will discuss the basic general principles of organic farming but will subsequently focus on particular products of interest for Mozambique. In particular, the course will focus on the type of products selected for the pilot projects.

Participants will be selected in the public and private sector (companies, associations and NGOs). Some of these technicians will be selected to collaborate with pilot projects/companies in the implementation of the necessary measures that will ensure compliance with the organic protocol.

Place of activity:

Mozambique

**Beneficiaries:**

Up to 16 private and public administration technicians with qualifications in the field of agriculture. Selection will be based on qualifications.

Duration of activity:

10 days in-house training

+ Practical in-farm training

## **2.3 Build local certification capacity**

- **Train inspectors/auditors**

In order to provide an enabling environment for the creation of a national certification company, the project will train inspectors and auditors to be prepared to carry out certification work in an efficient and reliable way. The training will prepare the inspectors to certify EurepGap and Organic protocols in Mozambique. The necessary training will be provided by a Certification Body accredited to certify EurepGap and Organic protocols.

A maximum of three technicians will be trained on EurepGap and Organic inspection procedures. The selected beneficiaries of this training will need to have the qualifications defined by the EurepGap accrediting body. The beneficiaries will include a technician from the certification department of National Standards Organisation (INNOQ). The two others will be chosen according to their qualifications and likelihood that they will stay in

Mozambique to ensure the continuity of the project.

This training will include theoretical and practical field components and will be organised in three modules.

1. The first part of the training will consist of an internet training module, supervised by the CB, to provide a theoretical introduction to the protocols - EurepGap (20 hours) and Organic Agriculture (20 hours).
2. The second module will be held in the country of origin of the CB. Through this module the trainees will receive on-site training in EurepGap and Organic certified companies. Their competencies will be evaluated by the CB, through inspections conducted in real situations. This module will dedicate 5 days for EurepGap and 5 days for Organic Farming.
3. Finally, a third module, held in Mozambique, will allow the trainees to complete the practical side of their training by inspecting the pilot projects in Mozambique. This module will also be followed and evaluated by the CB. 5 days will be required for each of the protocols.

To conclude the training, a final audit will be performed by a qualified auditor to assess the work developed by the inspectors trained.

In addition, in order to become auditors, the trained inspectors who do not yet possess such qualification will need to attend an internal auditor course.

Place of activity:

Country of origin of the CB (e.g. Portugal)  
Mozambique

**Beneficiaries:**

3 technicians, 2 private and 1 government officers.

Duration of activity:

**5 days distance training**

10 days in Portugal

10 days in Mozambique

+ Practical in-farm training

Final audit (5 days)

- **Set up a scheme for local certification through a internationally accredited certification body**

One or two of the private sector inspectors will enter into an agreement with the CB which will allow them to conduct inspections on behalf of the certification body. In the first phase, an auditor from the certification body will follow the process. The certification will be conferred by the CB.

## **2.4 Implementation of certification plans and certification of production**

### **in pilot projects**

The objective of this activity is to certify the production of the pilot projects. They will be used as demonstration camps for protocol application and they will be very important as a means to complete the field component modules of the training programmes of technical assistants and auditors.

- **Develop certification plans for each pilot project**

The first assignment of the technical assistants will be to develop plans for standards compliance adapted to each pilot project. This is a crucial phase which will be carried out jointly with the consultant from the body providing the training.

- **Provision of assistance for implementation of the protocols**

The TA assigned to each pilot project will provide technical support to implement the standards compliance plan.

The project will provide support for systems development and to upgrade specific infrastructure and equipment directly related to sanity.

Delivery and organization of the equipment for the upgrading of facilities necessary for standards compliance will be agreed and managed by the PMU.

The implementation of the plan will be monitored by the national auditors and the CB.

- **Preparation of operational and costs manuals for each section of the protocols**

For each type of requisite that needs to be complied with, the TA assigned to each project will prepare a budget as well as manuals which will demonstrate the procedures to be followed to fulfil that measure of the protocol. In the case of the out-growers and farmers organisations, the TA will produce work instructions and registration forms as well as any other documentation required for the quality management system.

The following manuals will be produced:

- Job descriptions
- Training (session and timetables)
- Management of varieties, fertilizers and pesticides
- Management of production
- Harvest and post-harvest
- Traceability
- Environmental and social management plan

The operational manuals will also allow the evaluation of the project implementation by the auditors formed by the project. These auditors will be responsible for the elaboration of an evaluation report which will also report on the difficulties encountered.

These documents are essential for the replication of the model. The aim is to produce templates from which other companies/projects will be able to derive their own procedure manuals.

## **2.5 Develop pesticide management database**

The IPM Working Group (whose secretariat is the Ministry of Agriculture, Department of Plant Health), will compile the information on EU requirements regarding pesticides. This will include up-to-date lists of authorised and banned pesticides, maximum residues levels and information for pesticide use (concentration and doses, number of applications per season, harvest interval) storage and handling recommendations. Recent field research carried out on pesticide management to comply with EU regulations in African Countries will also be reviewed.

These lists will take the form of protocols for specific crops which can be developed using a round table approach with the working group members. These will also involve collaboration with other regional groups working on the same topics.

This activity will involve the work of a co-ordinator and a consultant to develop the database.

A user-friendly database will be developed to make the information available to producers and extension workers.

- **Development of an information system on standards**

Based on the materials resulting from the pilot projects, the Project Manager will prepare the contents in an appropriate and user-friendly way to be integrated in the website developed by the Horticulture Working Group. He will base his work in the compilation of all the project documents including the operational manuals and pesticide database. He will prepare the contacts of the TAs and of the public and private auditors and of the certification body (initially, the ACB the auditors will be attached to, and, when operational, of the National Certification Body).

The new pages of the website will be designed by a website designer and integrated in the website.

These activities will be performed under the responsibility of the Horticulture Task Force (whose secretariat is the Ministry of Agriculture, GPSCA) and the PMU.

## **3. Dissemination plan**

Central to the dissemination strategy is the development of the Safety Standards component of the Horticulture website. This website will provide all the information about the project and on how to replicate the results.

Of fundamental importance are the type of materials that will be produced during implementation of the certification plans, i.e., the budget and operational manuals. The user-friendly pesticide management database will also constitute an additional means of disseminating information about standards.

For this plan to be effective, the project should ensure that the key stakeholders have access to the necessary IT resources.

The managers of the pilot projects have also agreed, that, of carefully planned, training visits can be organised to the pilot project after projects completion.

#### 4. Evaluation plan

The PMU will prepare progress reports on the activities completed and outputs, inputs and costs, problems encountered and recommendations for the continuation activities. Reporting will be carried out twice yearly. The PMU will also be responsible for submitting the project documents produced by the training and certification body and by the technical assistants to the pilot project. Pilot project managers will be responsible for delivery of the manuals to the PMU.

Each technical assistant responsible for a pilot project will prepare several documents which will be used for project evaluation:

1. Jointly with the training/certification body, a certification plan for the pilot project he will assist.
2. During the implementation of the plans, the technical assistant will develop operational manuals adapted to the specific production conditions there are working with.

The consultants in the training and certification bodies will produce reports evaluating each of the training activities they will be conducted and evaluating of the performance of the trainees (technical assistants and inspectors/auditors).

The inspectors/auditors trained, jointly with will CB will also evaluate the implementation plans and the operational manuals. Following the inspection visits to the pilot project, auditors will also produce a report.

The final evaluation of the technical assistant's performance and of project success will be the certification of the pilot projects.

Finally, the requesting bodies should submit a brief report on follow-up activities one year after project completion.

#### 5. Timetable

	Months																								
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	



Set up of PMU																				
Selection of Certification and training body																				
Selection of trainees																				
EurepGap training course																				
Organic training course																				
Training of auditors																				
Development of certification plans																				
Implementation of certification plans pilot project 1																				
Implementation pilot project 2																				
Implementation pilot project 3																				
Implementation pilot project 4																				
Preparation of operational manuals																				
Certification of pilot project																				
Compilation of information on pesticide management																				
Development of user pesticide use database.																				
Prepare all project information for upload into Mozambique Horticultural website.																				
Website design and integration of new pages.																				
Project evaluation																				

## 6. Profile of the proposed pilot projects

	<b>Pilot 1</b>	<b>Pilot 2</b>	<b>Pilot 3</b>	<b>Pilot 4</b>
<b>Project Managers</b>	Paulo Negrão Director Citrum	TechnoServe Mike Scott (Director EAM Lda.)	José Alcobia (Technical Director Frutimel)	Norberto Mahalambe (Abiodes)
<b>Location</b>	Maputo	Manica	Inhambane	Inhambane

<b>Description of the company/project</b>	Citrus production for export to the European market	Mango production for exports to Europe through South Africa. Established in 2002. In the process of establishing a network of out-growers	Honey production with small scale producers associations <sup>10</sup> . Production first for the national and South African markets then for the Middle East, European markets and the US (Through AGOA).	Citrus production with smallholders organisation.
<b>Institutions involved with the company/project</b>	Citrum TechnoServe NGOs: - BTC - Habitat for Humanity - Kellogs Foundation - Médicos do Mundo - Helvetas - APOIAR	EAM TechnoServe	Financed by the European Commission through the Multi-annual programme of food security. Implementing agent: Frutimel Participation of the Provincial Directorate of Agriculture.	Financed by the European Commission through the Multi-annual programme of food security. Implementing agent: Abiodes Participation of the Provincial Directorate of Agriculture.
<b>Benefits of certification</b>	Citrum has no access to markets which require EurepGap. Certification will guarantee a larger market and an increase in the price of production. This will allow the creation of more jobs.	The certification of outgrowers will enable the company to export their production to the EurepGap market. It will lead to the increase in the revenues of out-growers.	The increase in honey quality will help the producer's organisation overcome the difficulties of exporting to South African. The organic certification will facilitate access to the European market, where there is a shortage of organic honey.	The increase in citrus quality will facilitate exports to the South African market.

<sup>10</sup> Development and food security project in the field of apiculture for the districts of Zavala, Panda, Funhaloro and Mabote.

## **7. Proposed Project Team Members**

### **FRUTISUL**

FrutiSul, the Southern Mozambique Fruit Growers Associations, is a Mozambican producers association created in 1994. It is the first fruit producers association of Inhambane, Gaza and Maputo provinces. It has had an important role of liaison between the private and public sector. It participates in several multi-stakeholder fora being involved with the INNOQ in standards development and with being a member of the Horticulture Task Force. FrutiSul has organised courses on fruit production and has conducted studies on commercial fruit production. Its priorities are to provide support for fruit producers, encourage them to form associations at provincial and national levels, and seek partnerships to promote and develop the fruit industry. Several of its members are developing the capacity to access the export market. Some are already exporting to South Africa and Europe.

### **ABIODES**

ABIODES<sup>11</sup> (*Biological Agriculture, Biodiversity and Sustainable Development*) is a Mozambican NGO, founded in November 6, 1998, and with six years experience in implementing sustainable agricultural and rural development projects. ABIODES works in close collaboration with beneficiary communities, strengthening and improving their experience through scientific and technical knowledge.

ABIODES has implemented several projects in the domain of sustainable agriculture, local economic development, environment community development, lobbying and advocacy. It also provides specialized advice and consultancy services. ABIODES development partners include community based organizations, local NGO's, civil society forums and networks, government authorities, international NGO's, donors and private companies. This NGO is the Focal Point for the National Focal Point for Mozambican civil society in the field of sustainable development.

ABIODES is the key organisation involved with the development of the organic farming sector in Mozambique. It has been spearheading the debate on organic farming in Mozambique and has been involved in the development of a strategy to develop a organic certification system in Mozambique.

### **TECHNOSERVE**

TechnoServe<sup>12</sup> is a non-profit American organization founded in 1968. TechnoServe's mission is to help entrepreneurial men and women in poor rural areas of the developing world to build businesses that create income, opportunity and economic growth for their families, their communities and their countries.

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<sup>11</sup> <http://www.abiodes.org.mz/>

<sup>12</sup> <http://www.technoserve.org/africa/mozam-view.html>

TechnoServe's work in Mozambique involves: 1) identifying specific industries that, if revitalized, could provide jobs for rural residents and a market for small-scale farmers; 2) identifying specific "high-value" products that could give small-scale farmers a competitive edge in domestic, regional or international markets; 3) locating entrepreneurs with compelling business ideas of relevance to the rural poor, and helping them to build successful businesses; and 4) forging strategic alliances with business, civil society and government leaders involved in rural economic development.

TechnoServe receives funding from several sources, including individuals, corporations, foundations, religious organisations, the U.S. and other governments, and public and community organisations.

## **CITRUM**

Citrum is one of the companies receiving assistance from TechnoServe. Recognizing the fresh fruit industry's enormous potential to drive rural economic growth, and starting in 2002, TechnoServe Mozambique began its assistance to Citrum, a new tropical fruit business.

TechnoServe raised in private equity capital and obtained an equity grant from DFID (the UK's Department for International Development) to enable CITRUM to rehabilitate two large citrus plantations in Umbeluzi, Maputo Province. With 250 full-time employees and in less than 10 months, 1,070 acres - more than half of the plantations - have been replanted and 12,000 grapefruit and orange trees have been rehabilitated.

Mozambique exported no citrus fruit in 2002. But from June 2003, Citrum began production of the highest-quality Star Ruby grapefruits. In the short term, Citrum will be exporting 250 tons per season while selling another 500 tons of grapefruit and oranges to local juice-processing companies. With continued rehabilitation of the plantations, these volumes are projected to rise to 3,000-plus tons per season in 2005.

Citrum is currently employing about 250 permanent staff and 50 casual labourers. At the same time, Citrum is an ethical business. Citrum provides social and medical benefits to its workers, and supports at least 1,200 people in the local community -- a figure which is predicted to double in the near future. Citrum has collaborated with the Swiss charity Helvetia to bring water to 5,000 families in local area, and with US based NGO Habitat for Humanity to provide high -quality worker housing with running water and electricity. The first two houses under this program are currently under construction. On the health care front, Citrum partnered with Belgium's BTC and Portugal's Médicos do Mundo to turn one of Citrum's formerly dilapidated employee houses into a clinic fitted with all the necessary equipment and a full-time physician. Lastly, Citrum wants to build a "cluster of competence" in Southern Mozambique's citrus industry and started by implementing a 14-month training program. Citrum plans to rehabilitate a house on each of Citrum's two farms to be used as classrooms for the on-farm technical training course it has developed. Citrum is also providing hands-on training to 6 future farm managers, with a 14-month

on-farm technical training course.

TechnoServe believes that Citrum will serve as a positive example to other local entrepreneurs of a well-managed, profitable and diverse export farm. More importantly, its success will encourage others to invest in similar operations, generating jobs and increased incomes for rural workers. Citrum has the potential to be the primary catalyst for growth and development for the entire Boane region.

## FRUTIMEL

Frutimel is a private company, member of FrutiSul. Frutimel is itself a honey producer and it is also the executing agency for an EC-funded project for the development and food security in the field of apiculture. This project started which was approved in June 2005 has the following objectives:

- to improve and diversify income streams in rural areas
- To introduce new technologies providing honey producers with the means to increase beehive production and to turn apiculture into an economically viable activity
- To introduce new processing technologies through Honey Houses, in order to obtain higher quality honey
- Engagement of women in beekeeping activities
- Strengthening of beekeeper's associations and of their links to Frutimel.
- Dissemination of impacts through the involving of extension services.

The project hope to train 680 beekeepers and involve their families in project activities, train 40 extension agents and 2 technicians from the Provincial Directorate of Agriculture, construct and equip 4 Honey Houses, set up 3,400 mobile beehives, produce and market 68 tones of honey at the end of the project, market all the wax produced.

## 8. Existing and Potential Trade Support Projects (adapted from World Bank<sup>13</sup>, 2005)

Project/Institution	General Activity	Potential Project Activity
<b>Existing Initiatives in the SPS sector</b>		
UNIDO	Food Safety Control Systems	Analysis of food products. Investment in laboratories.
FAO/TCP	SPS programme	Training of MADER in SPS & survey work.
Regional hub/USAID	Trade promotion	Trade facilitation & SPS access to RSA and Japan
<b>On-going sector studies</b>		
Competitiveness /World Bank	Cost chain analysis.	Focus on mangoes & bananas.
Horticultural Industry Review / World Bank	Assessment of Industry, opportunities, constraints & needs	Developing Industry strategy & programme with GPSCA
<b>Planned Initiatives</b>		
Pro-Agri II /Multiple donors	Greater focus on productive capacity.	Possibly more direct support for research and production in the horticulture sector
Agri-Venture	To introduce development finance	Investment in new smaller scale agribusinesses

<sup>13</sup> G. Dixie, B. Bjerg, A. Sergeant (2005) Mozambique Horticulture Sector Development Study, World Bank

Capital/GPSCA	for agribusiness.	
GAPI	Rural credit.	Extension of role for longer term credit
TechnoServe/CEPA	Innovative approaches to financing in Manica for horticulture.	Possible involvement of InfraCo in developing Metachuria banana project.
Development Credit Authority USAID	50% risk cover, for medium and long term loans	Help accommodate the demand for long term loans, coupled with Technical Assistance
ARA/Water Project/World Bank	Changes in water policy – including differential water charging according to infrastructure provided	Leasing possibilities for irrigation infrastructure
Small farmer programme/WB	Smaller holder support in specific locations	Possible activities in the family farming sector producing high value export crops
CIMPOGEST	Matching grants for the Mozambican Private Sector	Possible extension of Activities to Horticultural sector
<b>Initiatives in the horticultural sector</b>		
GPSCA	Support for Commercial horticulture	Convenor of Horticultural Task Force & co-ordination of initiatives
PODE/World Bank	Sector support for horticulture.	Market research, matching grants, export manuals & management development.
TechnoServe/USAID	Support for commercial sector in Chimoio	On-going support for the horticultural industry
ADIPSA/DANIDA	Business development services	Out-grower support in selected Provinces
PSOM/ Dutch Aid	Grant support for innovative businesses	Investment in new innovative horticultural businesses
SME finance /IFC	Innovative investment for SMEs.	Investment in existing smaller scale horticultural businesses
Rural Finance Programme/USAID	50% Loan guarantees	Development Credit Authority
GAPI	Rural credit.	Horticultural businesses finance
CIMPOGEST	Matching grants for the Mozambican Private Sector	Extension to Horticulture
Enabling Environment/US AID	Improvement of enabling environment for business & trade.	Support for CTAs and advocacy to government for policy changes.

## APPENDIX 1

### List of people interviewed

Table 1.1, Contacts – South Africa

<i>Name</i>	<i>Organization</i>	<i>Comments</i>	<i>e-mail</i>
Dr. Mervyn W. Mansell	USDA-APHIS	Oversite of activities that may compromise phytosanitary status of horticultural produce exported from South Africa to the United States	<a href="mailto:mervyn.w.mansell@aphis.usda.gov">mervyn.w.mansell@aphis.usda.gov</a>
Gerhard Booyesen	Insect Science	Source of pheromone lures	<a href="mailto:Gerhard@insectscience.co.za">Gerhard@insectscience.co.za</a>
Bob Dunley Owen	Neofresh	Main supplier of papaya to Woolworths	<a href="mailto:Bob@neonovo.co.za">Bob@neonovo.co.za</a>
Jan Hendrik Venter	Early Warning Unit, International Plant Health, National Department of Agriculture	Planning and implementation of emergency responses to new exotic pests in South Africa	
Hein Garber	SABS Chromatographic Services	Main service for pesticide residue testing within South Africa	<a href="mailto:Garberhv@sabs.co.za">Garberhv@sabs.co.za</a>
Roy Roos	SABS Microbiological Services	Microbiological testing of food	<a href="mailto:Roy@sabs.co.za">Roy@sabs.co.za</a>
Gerard van der Laarse	QCFresh	EUREPGAP auditing	<a href="mailto:gerard@qcfresh.com">gerard@qcfresh.com</a>
Maranne van der Laarse	QCFresh	EUREPGAP auditing	<a href="mailto:marianne@qcfresh.com">marianne@qcfresh.com</a>
Mike Wilson	CMI	EUREPGAP Auditing and certification	<a href="mailto:Mdwilson@cmi-africa.com">Mdwilson@cmi-africa.com</a>
Tony Brinsford	Fresh Connect	Supplier to Super Spar and Blue Skies	<a href="mailto:Tony@freshconnect.co.za">Tony@freshconnect.co.za</a>

Table 1.2, Contacts – Mozambique

<i>Name</i>	<i>Organization</i>	<i>Comments</i>	<i>e-mail</i>
Gijs Bierman	Technoserve	Economist	<a href="mailto:gbiermans@gmail.comz">gbiermans@gmail.comz</a>
Rachide Sultana	Technoserve	Standards Technologist	<a href="mailto:rachide.sultana@tvcabo.co.mz">rachide.sultana@tvcabo.co.mz</a>
José Alcobia	Fruitimel, Ida	Technologist on honey production	<a href="mailto:fruitimel@tvcabo.co.mz">fruitimel@tvcabo.co.mz</a>
Paulo Guilherme Negrão	CITRUM	Financial Administrator	<a href="mailto:adm@citrum.co.mz">adm@citrum.co.mz</a>
Ken ??	Family is owner of MADAL	Based in Harare	<a href="mailto:ken@tanganyika.co.za">ken@tanganyika.co.za</a>
Serafina Mangana	Head of Departamento de Sanidade Vegetal	Within Ministry of Agriculture	<a href="mailto:sanidadevegetal@inter.co.mz">sanidadevegetal@inter.co.mz</a>
Maria Rita Freitas	Director, Instituto para a Promocao de Exportacoes	Director of Institute	<a href="mailto:Ffreitas@ipex.gov.mz">Ffreitas@ipex.gov.mz</a>
Cecilia Caudeinho	Instituto para a Promocao de Exportacoes		
Higino Marrule	Technoserve		<a href="mailto:Higino.marrule@tvcabo.co.mz">Higino.marrule@tvcabo.co.mz</a>
Rogério Ossenhave	GPSCA – Mina 6		<a href="mailto:Rogério.ossemane@gpscaina.gov.moz">Rogério.ossemane@gpscaina.gov.moz</a>
Alex Negrão	CITRUM	General Manager	<a href="mailto:adm@citrum.co.mz">adm@citrum.co.mz</a>
John Christie Smith	Mozambique Leaf Tobacco	Agronomist	<a href="mailto:Mlt.chimoio@teledata.mz">Mlt.chimoio@teledata.mz</a>
Armando De Oliveira	Alliance One Tobacco (Malawi) Ltd.	Shipping Manager	<a href="mailto:Adeoliviera@aointl.com">Adeoliviera@aointl.com</a>
Rojerio Henriques	MADAL	General Manager	<a href="mailto:Rogério@madal.co.mz">Rogério@madal.co.mz</a>
Chris Serfontein	Vanduzi	General Manager	<a href="mailto:Chris@vanduzi.com">Chris@vanduzi.com</a>
Anthonie du Toit	Vanduzi	Production Manager	<a href="mailto:Anthonie@vanduzi.com">Anthonie@vanduzi.com</a>
Piet Nel	Pimenta de Mocambique	General Manager	<a href="mailto:Pimenta@teledata.mz">Pimenta@teledata.mz</a>
Jake Walter	Technoserve Mozambique	Country Manager	<a href="mailto:Jake.walter@tvcabo.co.mz">Jake.walter@tvcabo.co.mz</a>



## Appendix 2:

### SPS issues in accessing RSA markets

#### South African Supermarket Standards

Formal standards for food safety in South Africa are nowhere as strict as in the UK or Europe. However in practice it is becoming more common although by no means universal for South African supermarkets to require EUREPGAP certification from their suppliers. This is becoming standard with Woolworth's and Pick and Pay for instance. However even growers whose focus is on the domestic wholesale or informal markets, such as ZZ2, are EUREPGAP certified. Other certificates are necessary including appropriately qualified pesticide operators and advisers. Increasingly other UK standards are becoming the norm and the current situation is summarized in Table A2.1 below

#### South African National Department of Agriculture

There are two sections within the National Department of Agriculture (NDA) which are relevant to potential importers. These are the department, Directorate of Agricultural Production Inputs (DAPI) responsible for implementing Act 36 of 1947 and International Plant Health (IPH)

Table A2.1; SPS issues facing horticultural exports to South Africa

Technical Issue	Nature of Problem	Intervention or how addressed?
Pesticide Residue Analysis	Complex and expensive equipment, specific and continuous training needed, laboratory and testing methods must be UKAS or SANAS accredited	Use SABS laboratory in Pretoria (Chromatography Services)
Microbiology	Complex and expensive equipment, specific and continuous training needed, laboratory and testing methods must be UKAS or SANAS accredited	Use SABS laboratory in Pretoria (Microbiology)
EUREPGAP certification	Organizations in Europe reluctant to license additional auditing and training companies. Process of licensing difficult and is a process rather than a once off training and certification.	Use pre-existing companies with large geographic footprint such as QCFresh which already operate in Mozambique with Vanduzi and EAM
BRC certification of pack-house	This standard is now required by Woolworth's and is increasingly becoming an international industry standard	There are a number of organizations in South Africa such as the PPECB that can carry out BRC audits
Organic Certification	Must be to UKROFS standard	Can use South African based auditors that are able to audit on behalf of UK/EU UKROFS approved certifying bodies
BASIS/FSTS training and certification	Although South African supermarkets may accept an AVCASA certificate it would not be acceptable to a UK supermarket.	Both certificates appear to be equivalent in practice but it would be a waste of resources to certify pesticide operatives twice. Need to translate course material into Portuguese and hold exams in the same language

Technical Issue	Nature of Problem	Intervention or how addressed?
Phytosanitary	The National Department of Agriculture in South Africa is required by USDA-APHIS to monitor the pest and disease situation in all countries that export fruit to South Africa. This is one of the conditions of South Africa's permit to export citrus to the United States	The Mozambican Department of Agriculture is required to monitor the pest and disease situation on all crops – especially those that are exported to South Africa and maintain an up to date database

Each of these issues is reviewed in more detail in the following Annexes.

## Appendix 2.1

### Pesticide Residue Analysis

#### Laboratory Standards

UK and South African supermarkets require minimum standards from pesticide testing laboratories. Any pesticide laboratory must be capable, qualified or accredited to undertake pesticide residue analysis to ensure the reliability and consistency of the results. Laboratories are generally required to have with Good Laboratory Practice (GLP) status and United Kingdom

Analytical Standards UKAS accreditation for pesticide analysis. In South Africa, the Ministry of Trade and Industry have a laboratory certification scheme called the South African National Accreditation Scheme (SANAS). SANAS and UKAS are 'cross accredited' and recognize each others certification.

The laboratory chosen must be demonstrated to be capable, qualified or accredited to undertake pesticide residue analysis to ensure the reliability and consistency of the results. Laboratories with Good Laboratory Practice (GLP) status and UKAS accreditation for pesticide analysis and participating in DEFRA's Food Analysis Performance Assessment Scheme (FAPAS) achieving specified Z scores are usually specified.

There are two schemes of relevance to the United Kingdom food industry: its laboratories can work to the principles of the UKAS accreditation scheme or to the system of Good Laboratory Practice (GLP). Laboratories should have UKAS and GLP accreditation for pesticide residue analysis (or equivalent in other countries). UKAS accreditation is also given for specific tests, so it is important that suppliers check as to the particular pesticide groups for which UKAS accreditation has been granted. Look for the percentage of tests in the multi-residue screen that are accredited. Documentary evidence should be requested. In addition, the laboratory should participate in the FAPAS proficiency testing scheme and have had its performance adjudged satisfactory. For more information regarding accreditation and FAPAS scores see the FPC Pesticide Code of Practice.

Extreme care should be taken in the decision on what to analyze for in a sample. There is sometimes a misconception over the term "multi-residue" which can give the impression that all possible residues are being tested for. In fact multi-residue analysis will vary between laboratories, therefore it is important that the laboratory is aware of the range of pesticides it need to analyze and have the appropriate protocols in place. Some important pesticides such as inorganic

bromine and dithiocarbamates are not included in a general multi-residue test.

The residues should be compared to the current lists of legal MRL's as defined in *The Pesticides (Maximum Residue Levels in Crops, Food and Feeding Stuffs) Regulations 1999 and subsequent amendments (2001)*. Statutory Instruments 1999 No. 3483 and 2001 No. 1113.

Reference Information for pesticides

Useful points of reference are:

<http://www.nda.agric.za/act36>

DEFRA Green Code: Code of Practice for Safe Use of Pesticides on Farms and Holdings (PB3528) (HMSO)

Code of Good Agricultural Practice for the protection of water  
DEFRA

Code of Good Agricultural Practice for the protection of air  
DEFRA

Code of Good Agricultural Practice for the protection of soil  
DEFRA

Opportunities for saving money by reducing waste on your farm –  
A manual for farmers and growers  
DEFRA

Guidelines for the safe and effective use of crop protection products -  
[www.gcpf.org](http://www.gcpf.org)

## **Guidelines for personal protection when using pesticides in hot climates**

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

The Pesticide Manual – A World Compendium	BCPC
The Biopesticide Manual – A World Compendium	BCPC
The UK Pesticide Guide 2002 (Published annually) (The “Green Book”)	BCPC

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

Pesticides Monitor (monthly)  
DEFRA

Pesticides, Reference Book 500 (Published annually)  
DEFRA

Pesticide Safety Directorate (PSD) [www.pesticides.gov.uk](http://www.pesticides.gov.uk)

Pesticide Residue Committee (PRC) [www.pesticides.gov.uk](http://www.pesticides.gov.uk)

Pesticides 2001 – Your guide to approved pesticides (The “Blue Book”) PSD

Fresh Produce Consortium (FPC) [www.freshproduce.org.uk](http://www.freshproduce.org.uk)

The Control of Pesticides – a Code of Practice FPC

Due Diligence Guidance on the Agricultural Use of Pesticides –  
Chilled Food Association (CFA) [www.chilledfood.org](http://www.chilledfood.org)

LIASON UK pesticide database [www.csl.gov.uk/liaison](http://www.csl.gov.uk/liaison)

Minimising Food Residues Crop Protection Association (CPA)  
[www.cropprotection.org.uk](http://www.cropprotection.org.uk)

Why is the avoidance of pesticide residues so important (CPA)

What can you do in the field to minimise residues (CPA)

Assured Produce [www.assuredproduce.co.uk](http://www.assuredproduce.co.uk)

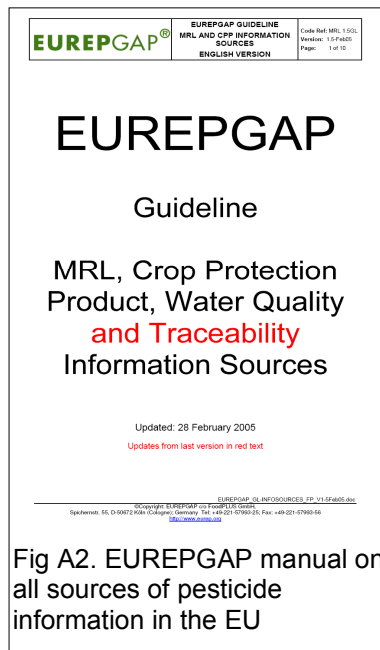
EUREPGAP [www.eurep.org](http://www.eurep.org)

Linking the Environment and Farming (LEAF) [www.leafuk.org](http://www.leafuk.org)

Pesticide Action Network [www.pan.co.uk](http://www.pan.co.uk)

Pesticide News (Quarterly) – The journal of Pesticide Action Network  
(PAN) UK

The List of Lists – A catalogue of lists of pesticides identifying those associated  
with particularly harmful health or environmental impacts. PAN



In addition the EUREPGAP website maintains a fully updated manual on pesticide information of relevance to exporters to the EU (Fig A.2)

### Appendix 3

#### Microbiological laboratory requirements

Laboratories carrying out tests on food are required by European supermarkets to be appropriately accredited. The body that is generally accepted in the UK is; Campden & Chorleywood Food Research Association Group  
Chipping Campden,  
Clousestershire  
GL55 6LD  
UK  
Tel +44 (0) 1386 842000  
Fax +44 (0) 1386 842100  
[www.campden.co.uk](http://www.campden.co.uk)

SANAS/UKAS accreditation of the laboratory alone is generally not acceptable to UK supermarkets. A specific standard has to be met in terms of ISA standards for the microbiological determination of the following tests;

*Escherichia coli*  
*Listeria monocytogenes*  
*Salmonella* spp.  
Yeasts and moulds (spoilage)

The laboratory and these tests must be certified annually to the ISA standard. Of particular importance is the requirement for the film test for *E. coli* which takes only 24 hours to produce a result. This method and the certification is regarded by supermarket chains as crucial in demonstrating 'due diligence' with regard to customer safety because there is time to react to a positive result before much of the product has been sold and consumed.

In practice the South African supermarkets require a lower microbiological standard and are satisfied with SANAS/UKAS accreditation.

#### UKAS

The United Kingdom Accreditation Service is the sole national accreditation body recognized by government to assess, against internationally agreed standards, organizations that provide certification, testing, inspection and calibration services. Accreditation by UKAS demonstrates the competence, impartiality and performance capability of these evaluators

Usually the reason for getting something independently evaluated is to confirm it meets specific requirements in order to reduce risks. Obvious examples are product failure, health risks, company reputation or to meet legal or customer requirements. Anything or anyone can be evaluated - products, equipment, people, management systems or organizations

Accreditation by UKAS means that evaluators i.e. testing and calibration laboratories, certification and inspection bodies have been assessed against internationally recognized standards to demonstrate their competence, impartiality and performance capability. It is the ability to distinguish between a proven, competent evaluator that ensures that the selection of a laboratory, certification or inspection body is an informed choice and not a gamble. UKAS accreditation means the evaluator can show to its customer that it has been successful at meeting the requirements of international accreditation standards. This means that the customer reduces the risk of selecting an incompetent evaluator and paying for, or more seriously, acting upon invalid results.

Trust is placed with suppliers in a variety of ways: past experience, recommendation, brand preference and so on. The greater the familiarity the more confident the purchasing decision. In today's large competitive business market it isn't always possible to buy from 'known' sources. Reassurance is needed to maintain trading confidence. Independent evaluation is the principle source of this reassurance and such confidence is underpinned by UKAS accreditation.

Accreditation by UKAS benefits its direct customers, their customers and purchasers by building confidence in a range of suppliers and enabling choice. It also encourages free, but trustworthy markets, enabling innovation and reduced regulation.

Accreditation by UKAS can also limit the need for government to regulate industry and the professions. It provides an alternative means of ensuring the reliability of activities that have the potential to impact on public confidence or the national reputation.

UKAS, where requested, assesses organizations and recommends to government their appointment as Notified Bodies as required by EU Directives and Regulations.

#### Accreditation and global trade

Accreditation is used worldwide. In most developed economies there is a body similar to the United Kingdom Accreditation Service. UKAS is this country's signatory to European and international agreements to facilitate the breaking down of technical barriers to trade. It is important for goods and services tested are accepted in Europe and worldwide without the need for additional testing. Increasingly, accreditation is the means of achieving this.

UKAS is recognized internationally through European and world multilateral recognition agreements. This recognition enables government to use accredited bodies to meet obligations under world trading agreements e.g. compliance with EU Directives and the WTO TBT (World Trade Organization Technical Barriers to

Trade) Agreement. UKAS represents the United Kingdom on three European and international bodies - the European co-operation for Accreditation (EA), the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF).

There are currently about 88 procedures within the Food Safety & Quality, Microbiology and Pesticides Veterinary Medicine Groups that need to be accredited to the ISO/IEC 17025 standard by UKAS. In addition, two of the principal Proficiency Testing Schemes operated by CSL, the Food Analysis Performance Assessment Scheme (FAPAS) and the Food Examination Performance Assessment Scheme (FEPAS) have to be assessed by UKAS, so as to be recognized as complying with the requirements of International Standard ISO/IEC Guide 43-1:1997, through assessment against ILAC Guide G13:2000.

## Appendix 4

### **EUREPGAP, BRC, Organic (UKROFS), BASIS/FACTS and BRC Certification**

#### 4.1 Background to EUREPGAP

EUREPGAP has been developed from a European group of representatives from all stages in the fruit and vegetables sector with the support from producer organizations outside the EU. Started as an initiative by retailers in 1997, the Euro-Retailer Produce Working Group (EUREP), the current version of the EUREPGAP document and procedures has been agreed among partners from the entire food chain for Fruit and Vegetables after a wide consultation phase.

The Version 2 (January 2004) of the EUREPGAP Reference Standard Fruit and Vegetables was released in September 2003 and can be downloaded from the website; [www.eurep.org](http://www.eurep.org). The EUREPGAP TSC for Fruit and Vegetables has evaluated and approved the new versions of the normative documents for fruit and vegetables - the EUREPGAP General Regulations for Fruit and Vegetables, the Control Points and Compliance Criteria, and the Checklist. These documents constitute the EUREPGAP Version 2.x and are current since 12th September 2003. After the 1st of January 2005 only version 2 certificates will be valid.

#### 4.2 BRC

With the introduction of the UK Food Safety Act in 1990, the statutory 'due diligence' defense became the main driver to formalize the process of food premise inspection by UK retailers. Under this legislation, it was no longer acceptable for a retailer to rely on a 'warranty' defense, if legal proceedings were presented. Under section 21 of the Food Safety Act there is provision for a general defense of "all reasonable precautions and all due diligence" against principal offenses in the Act i.e.:

"... it shall be an defense for the person charged to prove that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offense by himself or by a person under his control"

The responsibility for the safety and legality of product was now shared between supplier and the retailer, with emphasis for the retailer being placed on five main areas of control namely:

- To ensure the presence of a detailed specification, which is not unlawful or inconsistent with any compositional standards or good manufacturing practice
- To ensure that they satisfy themselves that a supplier is competent to produce the specified product and complies with legal



- requirements and operates systems of production control in accordance with good manufacturing or agricultural practices
- From time to time, make visits, where practical to verify the competence of the supplier or receive the result of any other of the suppliers system for that purpose.
- Establish a risk assessed program for product examination, testing or analysis
- To monitor and act upon customer complaints

Management review carried out by a number of the major UK retailers in the mid 1990's, led to a move toward third party auditing. The BRC Global Standard was developed in October 1998 with the aim of eliminating multiple audits by retailer technical and third party technical representatives of food manufacturers supplying th UK retailer with own brand products.

Since the first issue of the BRC Global Standard – Food in 1998 it has been revised on two occasions with Issue 3 being published in April 2002. The standard was developed under the leadership of the BRC and its members and has gained significant international recognition for its content, format and supporting system.

The main sections of the standards are;

- a. HACCP system
- b. Quality Management System (QMS)
- c. Factory Environment standards
- d. Product Control
- e. Process control
- f. Personnel

The BRC is a single standard and protocol, allowing evaluation to be carried out by Certification Bodies, who are accredited against the European standard EN45011 (ISO/IEC Guide 65). Single verification is all that is required and it addresses the due diligence requirements of both supplier and the retailer. As Certification Bodies are accredited against a European standard, there can be recognition of accredited Certification Bodies in countries where product is sourced

There are also a number of benefits in relation to the Certification Body accreditation scheme (based on EN450011 or ISO Guide 65), which supports the BRC Standard.

#### 4.3 UKROFS organic standards

The mission of UKROFS is to ensure that produce grown and sold in the United Kingdom as "organic" conforms to the standards established by UKROFS in

implementing European Union legislation. UKROFS does this by accrediting, and supervising the work of, private sector organic certification bodies and by authorizing the importation of organic produce from countries outside the EU.

UKROFS deal with all stakeholders in the production of organic food including consumers, retailers, wholesalers, importers and others in the distribution chain, farmers, growers and processors of food and agricultural products to be sold as organic, certifiers of organic products as well as UK the Department of Environment, Food and Rural Affairs (DEFRA).

#### Structure

UKROFS consists of a Board appointed by Secretary of State at the Department of Environment, Food and Rural Affairs in consultation with the devolved administrations. To assist it in its work, the Board has appointed Committees dealing with certification, research and development, and technical issues. Members of these Committees, each of which is chaired by a member of the Board of UKROFS, are drawn widely from relevant interests. The Board is assisted by a Secretariat provided by the Department of Environment, Food and Rural Affairs.

#### Duties of the Board

The Board monitors and approves the work of the organic certifying bodies and to take any action necessary to assure themselves that the bodies are implementing correctly the requirements EC legislation and the UKROFS organic standards and control manual. It accredits new certifying bodies which meet the appropriate requirements; and if necessary to suspend or withdraw approval from any accredited certifying body found in breach of the requirements. Formulation of standards for the production of organic products in the UK is in accordance with the requirements of the appropriate legislation, in particular Council Regulation (EEC) 2092/91.

Anyone wanting to grow or process food which is to be sold as organic must by UK law be registered with UKROFS or a body approved by UKROFS and be inspected by them at least once a year. The same applies to those importing organic food from outside the EC and in practice to South Africa. The UKROFS-approved bodies operate privately but are all subject to inspection by UKROFS to ensure that their systems and the standards of their inspections conform to the EC Regulation and UKROFS Standards. UKROFS also carries out direct check inspections on farmers and processors registered with the sector bodies as an additional assurance that organic standards are being complied with.

There are also strict production standards. For many years, there have been codes for organic farming prepared by voluntary bodies and applied by their members. In 1993, however, a European community regulation became effective. This describes the inputs and practices which may be used in organic farming and growing, and the inspection system, which must be put into place to

ensure this. The regulation also applies to processing aids and ingredients in organic foods. So, all food sold as organic must come from growers, processors or importers who are registered and subject to regular inspection. In the United Kingdom, the United Kingdom Register of organic food standards — UKROFS, administers the regulation. UKROFS consists of an independent board appointed by agriculture Ministers, which is assisted by a small secretariat, provided by the Ministry of Agriculture, Fisheries and Food. Its job is to ensure that the EC Regulation is properly in the UK by various bodies, which register organic farmers and processors.

The EC Regulation also operates throughout the whole European Community, so you can trust organic imported food. Organic food produced under the Regulation may be freely sold within the EC. so you may see the names or symbols of the certifying bodies from other Community countries. A limited number of countries outside the EC are currently recognized as having an equivalent system. Organic food from those countries may also be freely sold. For other countries, the importer must demonstrate to UKROFS (or similar body in another EC country) that the food is genuinely produced to an equivalent standard and inspection system before it can be sold as organic.

The rules that govern the labeling of organic foods come from the EC Regulations. They are designed to ensure that consumers are not misled. In the case of a product in a natural state such as potatoes, the rules are simple: potatoes may be described as organic only if they have been grown by a registered producer of organic foods. You might see on the label "organically grown potatoes". Though not legally required there may also be a brief description of organic farming and perhaps the logo of the inspection body concerned and the address of the grower or packer.

The EC Regulation currently provides rules for the production of all organic foods. Community standards for animal production are being developed and until these are in place national standards, such as those of UKROFS in the UK, must be used. These regulations aim to keep livestock in good health by promoting high standards of animal welfare, appropriate diets and good day-to-day care of stock. If animals are ill, the farmer must give appropriate treatment. Antibiotics and other conventional medicines are used under veterinary advice and only when no alternative treatment is available or where necessary to save an animal's life or to reduce suffering. In such cases no product from the animal concerned may be sold as organic for period from the last use of the medicine which in most cases is twice as long as the normal "withdrawal period" for that medicine.

More information is available on the DEFRA Website ([www.defra.gov.uk](http://www.defra.gov.uk) ). UKROFS organic certification is available in South Africa from;

Ralph Peckover,  
CSIR Food Science and Technology

P.O. Box 395,  
Pretoria 0001,  
South Africa  
Tel. +27 12 545-0409  
Fax +27 12 545-0409  
email [rpeckove@csir.co.za](mailto:rpeckove@csir.co.za)  
<http://www.csir.co.za>

#### 4.5 BASIS/FACTS certification

#### 4.6

BASIS<sup>®</sup> is an independent organization set up at the suggestion of the UK Government in 1978, to establish and assess standards in the pesticide industry relating to storage, transport and competence of staff. It is an industry self-regulated scheme, in line with Government de-regulation policy, giving balanced and independent advice to registered distributors. It does not seek to emulate the role of any Government enforcement agency. BASIS became a registered charity in 1999.

In the 1980's the 'British Agrochemical Standards Inspection Scheme' (BASIS) was one of the worlds first standard setters for pesticide suppliers. In 1992 the company was incorporated and at the same time set up the BASIS Professional Register to help demonstrate the professionalism of advisers. It was decided that, as BASIS was becoming involved in areas of agriculture other than just agrochemicals, (fertilizer with FACTS, Pest Control with PROMPT and more recently environment with BETA and Soil and Water Management) BASIS would no longer use the acronym. Consequently BASIS (Registration) Limited is an independent, self regulatory registration, standards and certification scheme serving the pesticide, fertilizer and allied organizations and interests.

The BASIS Registration Board consists of representatives of all trade associations with pesticide interests such as the Crop Protection Association (CPA), National Association of Agricultural Contractors (NAAC), National Farmers' Union (NFU), Agricultural Industries Confederation (AIC), Association of Independent Crop Consultants (AICC) and County Council representatives. The Board also has members elected by distributors as well as representatives of both DEFRA and HSE as observers. It is headed by an independent Chairman.

BASIS standards and certification are recognized under the Control of Pesticides Regulations 1986; the BASIS Storekeeper and Field Sales and Technical Staff certificates are now required, by law, by all those involved in the storage, sale and supply of pesticides. Also managed by BASIS is the Professional Register for sales and advisory personnel employed within the agrochemical and fertilizer industries and the PROMPT<sup>®</sup> Register for technicians in the Pest Control Industry. In addition, the Fertilizer Advisers Certification and Training Scheme (FACTS) is run by BASIS on behalf of the fertilizer industry.

BACCS<sup>®</sup> is the BASIS Advanced Amenity Contractor Certification Scheme managed by BASIS to raise and maintain standards and good practice for contractors operating in the amenity and industries sectors of the pesticide industry.

Under the Regulations, the statutory Code of Practice for Sale and Supply recommends that all companies have an independent annual assessment and names BASIS as an independent inspectorate. The power of the Code of Practice is similar to that of the Highway Code; failure to follow the Code will not in itself render a person liable to proceedings of any kind, but such failure will be admissible in evidence in any proceedings brought under the Food and Environment Protection Act 1985.

**BASIS registration means that:**

distributors can demonstrate to those enforcing the Food and Environment Protection Act 1985 that they are taking all reasonable precautions to abide by the law as it relates to storage, transport and competence of staff involved in the UK Crop Protection Industry.

stores and staff are assessed annually with a report sent direct to the distributor, drawing attention to any shortcomings. This minimizes the risk of possible prosecution and subsequent fines and/or prohibition or

improvement notices from the enforcement agencies.  
provision of expert advice and regular auditing can help to maintain good management practices and efficiency.  
companies have access to an independent organization which acts as a co-coordinator and arbitrator between various regulatory and approving authorities;  
distributors can keep abreast of current and pending regulations using BASIS as a source of contact to update, clarify, interpret and advise on legislative matters as they relate to the storage, transport, sale and advice of pesticides;  
by their support distributors ensure that their interests are considered in the running of BASIS.

**BASIS registration in the Agrochemical Industry demonstrates an industry which:**

- seriously adopts higher standards thereby ensuring that the requirements of current legislation are met;
- invests its own money in maintaining a self-regulatory body to help it keep abreast of standards;
- Takes very seriously all the implications of environmental issues by voluntarily offering its businesses to annual audits.

BASIS standards have now been adopted by other key organizations such as ADAS, AICC, CPA, County Councils, the Environment Agencies (EA, SEPA, EHS NI), crop based organizations such as British Sugar and farm management companies such as the Velcourt and Sentry Farming groups, farmers, growers, **supermarkets and the crop assurance schemes.**

When BASIS first began storage assessment in 1979, only 0.5% of stores inspected reached the required standard. Now a consistently high standard is regularly maintained with almost all stores achieving the correct standards.

Many other countries have approached BASIS to discuss the applicability of the UK scheme for their own circumstances. For example, the Australian pesticide industry has adopted the BASIS model.

With one eye on the future and to further professional expertise, BASIS has initiated the Professional Register (as mentioned above).

To be a member of the Register demonstrates that each person is technically qualified in line with Government legislation and that they are updated on an annual basis. To remain on the Register, individuals need to accrue annual Continuing Professional Development (CPD) points.

The industry has an excellent safety record. However, it is not complacent, recognizing that one major incident could bring the entire industry into disrepute.

**UK Government Endorsement**

“... the Department strongly supports the work of BASIS, the pesticide industry’s self-regulatory scheme set up at our behest in 1978. Since then the industry has behaved very responsibly, supported by minimum legislation, this being in line with the deregulatory approach. The Department is well aware of the world-wide recognition and credibility of the scheme and the fact that many other countries are keen to pursue similar initiatives.

The aim of the Deregulatory Strategy is to ensure that pesticide control arrangements provide the necessary assurance of safety through systems which are least burdensome to manufacturers, distributors, and users. Further legislation will be used only as a last resort where, for example, Codes of Conduct are seen to be inadequate. However, we recognize that any self-regulatory system will have people and organizations who will try to test the system, for whatever reason. I wish, therefore, to emphasize that this Department reserves the right to legislate further if this proves necessary in order to maintain standards of safety relating to pesticides, should support for the BASIS scheme be threatened.”

*Minister responsible for pesticide legislation, Department for Environment, Food and Rural Affairs (DEFRA)*

Contact details for BASIS and web sites for more information are given below;

Web Site:

[www.basis-reg.com](http://www.basis-reg.com)

<http://www.basis-reg.com/training>

BASIS® Registration Ltd., 34 St. John Street, ASHBOURNE, Derbyshire, DE6 1GH, UK  
Telephone: +44 (0) 1335 343945 / 346138 Fax: +44 (0) 1335 346488  
Registered in England No 1365343 Charity No. 1077006

**Appendix 5**

**Circular N°UA/CPI/2005/01**



**AFRICAN UNION**

**الاتحاد الأفريقي**

**UNION AFRICAINE**

**UNIÃO AFRICANA**

Yaoundé, CAMEROUN P. O. Box 4170

Téléphone 221 19 69

Fax : 221 19 67

E-mail : [au-cpi@au-appo.org](mailto:au-cpi@au-appo.org)

**INTER-AFRICAN PHYTOSANITARY COUNCIL**  
**PHYTOSANITAIRE INTERAFRICAIN**

**CONSEIL**

*Référence :*

*Date :*

Le 15 Mars 2005

**Circular N°UA/CPI/2005/01**

*To*

**The Directors of :**

- **National Plant Protection Services**
- **Agronomic Research Centres**
- **IITA, Cotonou, Benin**

**The Rectors of Agronomic Universities**

The Secretary of the African Union's Inter-African Phytosanitary Council hereby informs all national plant protection services, agronomic research centres and universities as well as the relevant plant quarantine authorities of Member States, of the presence in Benin of a new exotic species of fruit fly – *Diptera : Tephritidese* – which attacks many fruit species.

This new species was first discovered in Kenya in March 2003. Shortly afterwards, it was detected in Tanzania, the Democratic Republic of Congo and Uganda, and more

recently, in Cameroon and Togo. The first positive captures in Benin by entrapment using a parapheromone in Pénéssoulou, Bassila Commune (IITA, Drs G. Goergen and R. Hanna), date back to June 2004

In West Africa, the flies captured by entrapment (and obtained after emerging from infected fruits) in Benin and Togo were identified as new species for Science by Dr Richard Drew, an internationally renowned expert in this domain. This species probably originated from Sri Lanka and belongs to the *bactrocera dorsalis* complex. This complex comprises the *Tephitides* species (*B. carambolae*, *B. papayae*) which are among the most damaging to the growing globally of tropical fruits.

Research carried out in 2003 in Kenya and Tanzania showed that this species attacks particularly fruits with an economic value. At present, work to determine the range of plant hosts has just started in West Africa. Preliminary efforts to rear the fly in Benin have shown that this pest attacks citrus fruits, guava, tandam and particularly mangoes (IITA-CIRAD, Drs J. F. Vayssières, G. Goergen and R. Hanna). We believe that certain market gardening crops could equally feature on the list of host plants.

Given that this species was initially discovered in Kenya in 2003 and has within a space of 12 months spread to different far-flung corners of the continent, it seems very likely that the introduction of the fly on the continent dates back a number of years. However, we are unable from current data to accurately pinpoint the point(s) at which this **devastating quarantine pest** came into Africa.

The International Centre for Insect Physiology and Ecology (ICIPE), Nairobi, and IITA, in association with CIRAD (International Centre for Agronomic Research and Development), will join a consortium of partners to deal with this major continent-wide problem which poses an extremely serious threat to African fruit production.

For more information on this pest, please contact Dr Braima James, Director of the IITA Biological Control Centre for Africa 08 BP 0932 tri postal, Cotonou, Benin.

Yaounde 15<sup>th</sup> March 2005

**Dr. Nazaire NKOUKA**  
**Scientific Secretary**



**Appendix 6**  
**VISIT TO ZAMBEZIA & CHIMOIO PROVINCES**

**Annex 6**

Visits to potential and actual horticultural exporters in Zambezia and Chimoio Provinces

**MADAL**

MADAL in Quelimane, Zambezia Province was visited by Geest in October 2005 and at the end of March in 2006.

The purpose of this visit was to assess the potential of Madal to supply fresh prepared coconut and coconut water to Marks and Spencer and other retail chains. The prepared fruit and juice technologist at M&S has made it a requirement that any fresh coconut suppliers must achieve “Category 1 compliant” Field to Fork status. Field to Fork is the M&S brand name for their CoP's on quality and safety.

**Introduction**

Madal is one of the oldest and largest companies in Mozambique. It is based in the town of Quelimane about 100 km north of the Zambezi river delta and employs over 4000 people making it Mozambique's largest employer. Quelimane is the capital of Zambezia Province and has buildings in it that date back over 500 years.

The company was nationalized in the early period of FRELIMO rule in Mozambique and was badly run down in the process. Recently it was privatized and sold to a Zimbabwe based farming group whose owners actually live in Austria and Zimbabwe. This group own a number of large commercial farms in Africa, mostly in Zimbabwe, Zambia and Tanzania. Although a lot of Madal land has been given to local small scale farmers since 1975 it still qualifies as the largest coconut farm in Africa. Farm sections extend along 120 km of the coast and about 40 km inland.

**Future prospects**

Technoserve have been commissioned by Madal to look at ways of diversifying their business away from copra. Projects under consideration include ways of beneficiating coconuts, biodiesel, sweet potato's and yams. .



Fig. A10.2 Smallholder coconut and pineapple production near Quelimane

Madal are actively looking at bringing local family sector farmers as out growers, especially better quality growers such as in Fig A10.2. They already do this for coconuts for copra but there are few alternative crops outside of these. At this point there is no clear idea of how this would be organized and financed and Madal are looking for help. Finance would be from various aid agencies based on a suitable business plan.

At this point Family Sector farmers mostly produce copra for processing into oil. However this is almost entirely of low grade and generally unsuitable for human consumption. It however illustrates some of the difficulties in involving Family Sector farmers in export crops – particularly where a commercial producer has difficulty in investing and meeting standards

#### Field Assessment

Madal conform to a major part of the requirements of Field to Fork in that the coconuts are grown entirely without the use of pesticides or irrigation. Although they do not have a Quality Management System (QMS) there would be relatively little needed to comply with the M&S Category 1 hygiene requirements both in the field and in the proposed pack-house except in one respect; i.e. in regard to M&S CoP for food safety in the growing of fresh produce 1-4 (sections 4.3, 4.4a and b). These guidelines are confidential to M&S so cannot be reproduced in this report. In essence these sections of the guidelines refer to exclusion periods between grazing animals and/or application of animal manure and crop harvest which in the case of Category 1 crops is 18 months. This problem is illustrated in Fig. A10.3 below.

All other requirements can be easily met with some assistance – mainly in the setting up of required QMS paperwork systems. Madal already fully comply with M&S requirements for pesticides, environmental, and GM standards.

#### Agronomy of Coconuts

Due to the severe restrictions on capital investment during government ownership the

company has made limited investment in upgrading their production. Nurseries for newer hybrid coconut cultivars have been started and some of the new fields are already in production (pictures ‘hybrid’ and ‘new hybrid production’)

At present crops are rainfed with minimal inputs in terms of fertilizers and agrochemicals. Climate data is given in a separate spreadsheet. During the course of devising a business plan there would be little trouble in getting finance for required inputs should these be necessary. MADAL have started excluding animals from various sectors of their coconut plantations. To date this amounts to 50 hectares where they have been planting pineapples Fig. A10.4 below. For a number of reasons MADAL management have asked that the pineapple planting project be kept confidential outside of Technoserve, Geest and M&S. For this reason the details of how they are complying and proving that they comply with the M&S food safety CoP's will not be included in a final



Fig. A10.3: Animal grazing in coconut plantation report to UNCTAD



Fig. A10.4; Animal exclusion area in MADAL plantation

### Logistics

Quelimane is poorly served by the national road network. There remains a gap in the road between the Zambezi river and Gorongosa that is only for the toughest vehicles. The Zambezi crossing is by ferry.

However there are two coastal container ships a month to Durban. Capacity on each ship is 200 containers with a sailing time of three days (see harbour picture). There are plans and the money to install six reefer points in the harbour. This is on hold because there is no need at present but they could be installed very quickly. Most of the shipping in the harbour actually consists barges owned by Madal for bringing in copra for processing at Quelimane. There is a facility owned by a Japanese fishing company.

An ambient container is US\$ 800. There are no phytosanitary restrictions or even a need for a Phytosanitary Certificate for the import of coconuts into South Africa. Coconuts

can be stored for a month at ambient temperatures. There is no schedule of sailings but the gap between departures is no more than three weeks.

#### Pack house and packing

Costings are given for coconuts in the green outer husk. This is an expensive option as it nearly doubles logistical costs. Madal are prepared to de-husk the fruit for South African retailers. A disused building near the harbour would be suitable with minimal work. This complex is already being used for a pilot project in the production of coconut coir.

#### Post-harvest handling of coconuts

**Pre-cooling Conditions:** Room-cooling is generally used for mature husked nuts. Forced-air and hydro-cooling are acceptable. A rapid temperature change of 8 °C (14.4 °F) can cause cracking.

**Optimum Storage Conditions:** Mature coconuts with husk can be kept at ambient conditions for 3 to 5 months before the liquid endosperm has evaporated, the shell has cracked because of desiccation or sprouting has occurred. Storage at 0 to 1.5 °C (32 to 35 °F) and 75 to 85% RH is possible for up to 60 days for mature, dehusked coconuts and 13 to 16 °C (55 to 60 °F) and 80 to 85% RH for 2 weeks or less. Low RH and high temperature should be avoided. Young coconuts are normally held at 3 to 6 °C (37 to 43 °F) with 90 to 95% RH, while wrapped shaped fruit can be held for 3 to 4 weeks.

In the longer term it is possible to consider a dehusked coconut at low temp or shaped coconut or young jelly nuts direct from Mozambique. Meat from both immature (jelly-like) and mature (hard) is sold in trays with over-wrap or plastic bags for use in deserts in some eastern countries. Immature coconut jelly-like meat and coconut water have to be held at 3 to 5 °C (37 to 41 °F) to avoid spoilage and probably do not last longer than a few days.

**Chilling Sensitivity:** When stored at 0 °C (32 °F), immature nuts have green skins that turn brown after 7 days; few other changes occur in other quality characteristics at this temperature. **Ethylene Production and Sensitivity:** Very low to near zero for mature husked coconut. There are no reports of sensitivity to ethylene.

#### Actions

The 18 month animal exclusion period has started as of the beginning of January 2006. This will end in July of 2007. This time frame can be used to develop the following (GANTT Table A10.1 below);

- Logistics trial (one container of coconuts to test logistics and market)
- EUREPGAP certification
- Develop business plan
- Develop (where appropriate and possible) exports of yams And sweet potato) and butternuts
- Test processing of microbiologically acceptable fresh coconut (Geest)

Table A10.1 GANTT chart for technical compliance and development of business plan for horticultural exports from MADAL

GANTT FOR MADAL HORTICULTURAL EXPORTS

		2006												2007						
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Compliance period for animal exclusion																				
EUREPGAP Certification																				
Logistics trial																				
Draw up Business Plan																				
Horticultural Export plan	Butternut																			
	Yams																			
	Fresh Coconuts																			

Table A10.2 is a rough plan of costs of exporting fresh coconuts to Durban in South Africa. The current market for fresh coconuts in South Africa is small being about equivalent to one container per month. However the quality of coconuts in the South African market is very poor and there is a reasonable chance that with better quality there may well be better demand. In addition there is a small but significant chance that with a development program in place with Geest and Marks and Spencer a market for fresh coconut pulp, water or milk may be developed in the UK.

Should that happen then the fresh coconut market could be worth a lot. However it must be emphasized that this has yet to be proved. In this context it will not have any chance at all if the animal exclusion and EUREPGAP issues are not addressed.



## REPORT ON VISIT TO VANDUZI

### Background

Vanduzi is owned by MOZFER a Mozambique company based in Maputo. They are involved in transportation and own a 12,000 ha farm in Chokwe which produces rice, maize and tomatoes. The visit to Vanduzi took place over two days. The first day we met with the new General Manager, Chris Serfontein and the Production Manager, Anthonie du Toit. There was some initial wariness on the part of the Vanduzi management as to the reason for our visit but once the circumstances were explained they were very co-operative. On the second day there we spent a good portion of the time reviewing the part played by the Family Farming Sector in their production plans.

The assessment regarding Vanduzi is that there has been a relatively poor performance in the recent past as to pack house throughput. The pack house is severely underutilized and there are plentiful signs of significantly high overheads in the form of capital stock and administrative staff. Our impression was that there had been a sweeping change in top management with a view to aggressively developing high volume throughput in the pack house (Fig A10.8).



Fig. A10.8. Vanduzi pack house, Manica Province

### Family Sector supply

This is currently in the charge of Fransisco Junior. There are 10 associations of Family Sector farms within a 25 minute drive of the Vanduzi pack house. Each association is tightly controlled by Vanduzi and no farmer is allowed to spray or fertilize their crop. Only baby corn is grown by family sector farms. Inputs are provided by a team based at Vanduzi who also maintain the records. Each association is covered by a EUREPGAP certificate. Vanduzi have provided a medical clinic, and practical training to each Association and grower.

Family farmers are responsible for land preparation, planting, weeding and harvest. Field toilets have been built in the vicinity of the Association fields and are maintained by the growers. There are five key operations that are the responsibility of the Vanduzi agronomy team. These are:

- Planting
- Spray for cutworms at seven days after planting
- Top dressing at week three
- Second top dressing at week six
- Harvesting (collection)

Total area grown by all 10 Associations of Family sector farmers amounts to 5 hectares. Each grower seems to have about 0.2 ha. From what we were able to see this is the most that can be grown by any family at any one time. The effort expended by Vanduzi to service and maintain their Family Sector farmers seemed completely out of proportion to the output. However Anthonie did tell us that they were trying to expand this area of production to about 40 hectares – out of a total planned production area of 80 hectares.



Fig. A10.9. Family sector farmer with babycorn crop



Fig A10.10: Toilet block at Family Sector Farm near Vanduzi

During the course of our visit to see Family sector farming we became aware of a number of difficulties. Crop management is difficult as usually only one person is involved. Where other demands are made on time crops suffer as in the case we saw weeds had largely got out of control and the crop yield potential was low. Irrigation is by hand made canals and is very labor intensive. Land preparation is expensive and difficult. Our overall impression was that the reward was disproportionately low compared to the effort and that Vanduzi were going to reposition themselves into focusing mainly on commercial production in the short term.

### Technical issues

A considerable investment has been made by Vanduzi in various forms of certification including EUREPGAP. This was carried out by QCFresh from South Africa. We were told that the costs of Family Sector certification including the associated infrastructure were met by Vanduzi.

We did discuss a number of other technical issues with Anthonie du Toit which were of interest because they are relevant to other exporters aspiring to get EUREPGAP certification.

advisers and relevant workers must be BASIS/FSTS certified as EUREPGAP auditors are reluctant to accept the South African AVCASA certificate. Vanduzi had sent several workers to Lusaka to take a BASIS/FSTS course and exam. However because this course was in English they unfortunately did not pass the exam. Anthonie would like to see a Portuguese language version of the course and exam being developed.

Chemical companies are extremely reluctant to register chemicals in Mozambique due to the microscopic markets – especially in emerging horticultural crops. He would like to see a form of derogation being applied such as the extension of certain South African crop chemical registrations to Mozambique. In any case the South African registrations are being updated and harmonized with EU MRL's through the PIP program. This would be a cost effective way for Mozambique to significantly improve its crop protection options. Vanduzi would like to see the teaching capacity of the *Instituto Agrário de Chimoio* upgraded. It is their intention to start courses there on permaculture, in particular, in respect of maintaining and improving soil carbon levels among Family Sector farms.

The first point above certainly is pertinent to the scope of this study and will form part of the recommendations. The second point is a policy issue and could be taken up with the relevant ministers and Government Departments. In respect of the last point the adoption of permaculture, especially of a modified form of 'ridge till',

would enable Family Sector farmers to be far more efficient especially when one considers the energy used in land preparation, hand irrigation and weeding. However it is more an agronomic problem than a technical barrier.