APPENDIX 3: Knowledge on CBSD and its control transferred

Activity 5.1. Farmer field schools
In six villages in southern Tanzania, we have established groups of 25 - 30 farmers who have evaluated our cassava varieties and/or attended the CBSD seminars. The names of these contact farmers have been registered and the farmer field school approach will be used to improve their knowledge of the virus disease and control measures in the field so that this knowledge can be disseminated more widely in the villages.

Achievements
During the 2002 season 10 farmers were selected in each of our 6 contact villages, to receive planting material of each of the CBSD-tolerant varieties, which were planted in rows with the involvement of project staff. The objective was both to use each site as a focus for training on CBSD, contrasting the tolerant varieties with the local material in surrounding fields, and to collect data on variety performance using each village as a replicate [results in Table]. In 2004 once we had sufficient data on variety performance, planting material of the CBSD-tolerant cvs was supplied to the group as a whole and they were asked to plant a community multiplication plot. In practice they planted a single plot which they managed together, but also their own individual plots. The groups then opted to sell their surplus cuttings for the 40/05 season as they considered they should get some reward for their labour. The extent to which the varieties were disseminated in the villages was assessed under Output 6.

Activity 5.2. Knowledge transfer in schools
A cassava virus disease education package will be developed for use in schools in Mtwara Region. Participating schools will be visited by the social scientists at Naliendele and may also be given planting material for multiplication on the school farm. [NB. There is a separate section in the budget for the socio-economists at Naliendele who will be responsible for knowledge transfer and M&E activities].

Achievements
Six secondary schools were selected by District Education Officers to participate in the community multiplication scheme. One teacher from each school joined the training sessions at the Naliendele MATI designed for village extension officers, where they received training in cassava crop production and post harvest utilisation. Messages about crop management and the potential for value added products such as high quality flour were developed into teaching modules for secondary schools.

The teachers and children participated in planting and managing the cassava plot. Most of the schools seemed to have sufficient land to allow the multiplication plot to be well isolated from other cassava. This was an advantage over the villages where the plots were close to other cassava plots that were often heavily infected with both CMD and CBSD. This led to massive infection of the CBSD-tolerant cvs with virus diseases which was avoided at the schools sites.

Activity 5.3. Training of extension officers
Each of the District Extension Offices in the southern Zone will be visited to evaluate their awareness of cassava virus diseases and the control options available. Where necessary knowledge gaps will be addressed by theoretical and practical demonstrations.
Achievements
One of the M & E activities [see Output 7] was to assess knowledge of CBSD among extension officers. Results showed that knowledge was still poor. In order to deal with this a retraining session was organised with the Ministry of Agriculture Training Institute [MATI] at Naliendele. This first involved project input to a 'training of trainers' workshop to raise the knowledge levels of the instructors in all aspects of cassava cultivation, pest management and post harvest processing.

Activity 5.3. Radio broadcasts
We have already had some discussions with the Lindi office of Radio Tanzania who have agreed to assist in the making of a series of broadcasts to raise awareness of CBSD and the control measures. The programmes will be made by the socio-economics team at Naliendele and the Radio company will provide the sound recording engineer. The 15 minute programmes will be repeated twice. The first programme will present an introduction to the disease and the associated problems. The second programme will present the farmers view with interviews in one of the villages. The third programme will cover the research angle and measures being taken to combat the disease.

Achievements
The radio programmes were made by the Lindi studio of Radio Tanzania. Design of the programmes involved Mrs Hamza with Mr Fakihi from the Extension Liaison Office at Naliendele, and broadcast in 2003. The programmes were broadcast on national radio and repeated on Radio Tanzania local to Mtwara/Lindi. [More information in appendix 4].

Other communication strategies:

Information leaflet – The Extension Liaison Office at Naliendele with inputs from the Root Crops Section [Mr Raya] designed a leaflet in Kiswahili that described symptoms and control of CBSD. The CPP project provided funds for the colour separation and printing of the leaflet. 4000 copies were made and distributed to District Extension offices and directly to farmers in our contact villages, at workshops and farmers fairs.

Information Poster – high quality, laminated posters were produced by the Publications Department at University of Greenwich at Medway, based on designs by Rory Hillocks. Two complementary posters depicted CBSD symptoms on one and CBSD control on the other. CBSD resistant varieties were listed and where they could be obtained. The text was written originally in English and translated into Kiswahili by Marton Muhana [SRI] and Portuguese by Chande Osufu [STC]. An English version was distributed in Malawi, the Kiswahili version in Tanzania and the Portuguese version in Mozambique. Fifty copies were printed in each language and distributed to District and Village Extension Offices to be displayed in a prominent location.

Other CBSD information outputs:

Television Programme - Television Trust for the Environment [TVE] have been contracted by the BBC to make programmes for the series 'Earth Watch' on the World Service. TVE contacted me after they approached CPP for some ideas and the CBSD project was suggested. In Mozambique the project works closely with a
consortium of NGOs, including Save the Children and World Vision. I then contacted Save the Children, as they are working in an area where CBSD is particularly important. They were keen to be involved in the programme and I put TVE in touch with them to finalise the arrangements. CPP then agreed to provide funds to cover some of my time and T&S as an add-on the existing CBSD project, to enable me to travel to Mozambique to ensure that the role of research was adequately covered. In particular, to cover the collaboration between the CPP-funded research that NRI is doing and Save the Children's food security project.

The programme was filmed over three days around the town of Nacala on the coast of Nampula Province in northern Mozambique. Cassava is the staple in this area and essential for food security. CBSD is present at high incidences and some of the local varieties are highly sensitive to root necrosis. Under such circumstances, CBSD decreases the cassava available for consumption, contributing to food insecurity and famine. The filming was based on case studies of families whose cassava was badly affected by CBSD, showing the importance of cassava to their livelihoods and the effects of the disease on the crop. Farmers were interviewed in the field with a translator. Interviews were done with Save the Children staff in relation to food security and the work they are doing to combat CBSD, and with myself to cover the broader areas of research on the disease and its control.

**Evaluation of the communication strategy:**

Under M & E activities [see Activity] the knowledge of CBSD – its recognition and means of control were evaluated among farmers in our contact villages in southern Tanzania and among extension officers. Farmers were informally surveyed but knowledge of CBSd among extension officers was formally assessed. The communication strategy was not particularly successful in Tanzania and most people interviewed had not seen any of the outputs.

*Leaflets* – these were the most successful because they were cheap to produce and large numbers could be distributed.

*Posters* – These were the least successful because of their high quality and cost meant that the numbers were limited. This led extension officers to treat them as precious processions which they kept at home or in the office drawer to be used for workshops and to give to selected individuals. We did not find a single District Extension Office that was displaying the poster. A request was made to District Extension officers that the poster be displayed as soon as possible. It seems that if posters are to be useful they need to be available in large numbers.

*Radio* – few farmers and few extension officers had listened to the radio broadcast. Most respondents said that either they did not listen to the farming programme or that their radio was not working at the time of the broadcast because they did not have batteries.