



**UC Davis Horticulture Collaborative Research Support Program
Exploratory Projects
Performance Report**

Check Report Type:

- ___ 2nd Quarter Reporting Period (January 1, 2011 to March 31, 2011) - Due April 30, 2011
- ___ 3rd Quarter Reporting Period (April 1, 2011 to June 30, 2011) - Due July 31, 2011
- ✓ 4th Quarter Reporting Period (July 1, 2011 to September 30, 2011) - Due October 31, 2011

Title of Project *Geographic information accessibility for improving horticultural-based income generation in the Mzimba district of Malawi*

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Part I - Performance Indicators

Please see uploaded .xls table

Part II - Monitoring and Evaluation Plan Matrix

Progress to date:

Objective #1: GIS base mapping and database development				
Activities	Outcomes	Measure of success	Documentation and impacts of success	Progress to date
<ul style="list-style-type: none"> • Acquisition of satellite imagery for study area – approximately 50 km² region of Embangweni • Acquisition of pre-existing GIS data layers from private and public sources • New GIS spatial and attribute data development using on-screen digitizing and satellite imagery, GPS field data collection integration, and with collaborative communication between BSC and WRM partners about features to map and attribute 	<ul style="list-style-type: none"> • Satellite imagery acquired • Data layers acquired • GIS and GPS data developed 	<ul style="list-style-type: none"> • GIS base mapping and database developed 	<ul style="list-style-type: none"> • Monthly reports 	<ul style="list-style-type: none"> • Monthly reports <ul style="list-style-type: none"> ○ MzimbaReport2011_Jan.pdf ○ MzimbaReport2011_Feb.pdf ○ MzimbaReport2011_Mar.pdf ○ MzimbaReport2011_Apr.pdf ○ MzimbaReport2011_May.pdf ○ MzimbaReport2011_Jun.pdf • Acquisition of topographic maps and satellite imagery – imagery datasets are highlighted in MzimbaReport2011_Mar.pdf <ul style="list-style-type: none"> ○ IKONOS (50 km²) ○ ALOS (full area) ○ TM (full area) • Acquisition of pre-existing data layers from Malawian Survey Office. Development of a soil texture map and shapefile in collaboration w H. Kaunda. These layers are highlighted in MzimbaReport2011_Jan.pdf • GPS data points collected and new GIS spatial data developed. These new data sets are

information for those features				<p>highlighted in MzimbaReport2011_Mar.pdf</p> <ul style="list-style-type: none"> Survey to collect farmer data completed with IRB approval <ul style="list-style-type: none"> Survey.doc, Malawi IRB_Application.doc, IRBapproval.pdf Monthly anemometer readings are being collected (anemometer_data file)
Objective #2: GIS/GPS skill training				
Activities	Outcomes	Measure of success	Documentation of success	Progress to date
<ul style="list-style-type: none"> Develop training materials specific to WRM horticulture programs and goals for the Embangweni region Conduction of two training sessions (January and June 2011) for WRM staff focused on GIS database development (January) and GIS data analysis (June) Ongoing collaborative communication between BSC and WRM partners before, during and after training sessions 	<ul style="list-style-type: none"> Training materials developed Staff trained WRM partners and BSC staff jointly working 	<ul style="list-style-type: none"> WRM staff trained in GIS/GPS skills 	<ul style="list-style-type: none"> Monthly reports 	<ul style="list-style-type: none"> Monthly reports <ul style="list-style-type: none"> MzimbaReport2011_Jan.pdf MzimbaReport2011_Feb.pdf MzimbaReport2011_Mar.pdf MzimbaReport2011_Apr.pdf MzimbaReport2011_May.pdf MzimbaReport2011_Jun.pdf January training <ul style="list-style-type: none"> Geographic information systems demonstration (ZAINÉ) GPS overview (GPS.ppt) Anemometer download (anemometer_tutorial.doc) July training – GIS training manual Collaborative communication between BSU and WR partners about features to map, and information for those features. A documented example of this communication can be seen in gpspoints_questions.ppt
Objective #3: Integration of geographic data and analyses in current WRM horticulture projects and future CRSP proposal				
Activities	Outcomes	Measure of success	Documentation of success	Progress to date
<ul style="list-style-type: none"> Preliminary GIS data analyses and reporting Continued analyses of GIS datasets will be proposed in a CRSP Pilot Project (fall 2011) that will continue to integrate GIS with horticultural decision-making and activities with continued focus on farmers'/WRM input of and farmers'/WRM data dissemination in determining best locations for future WRM horticultural programming in the areas of crop production, irrigation farming and agribusiness 	<ul style="list-style-type: none"> GIS data analyzed and reported 	<ul style="list-style-type: none"> GIS/GPS data analysis integrated in WRM current horticulture projects and future CRSP 	<ul style="list-style-type: none"> Monthly reports 	<ul style="list-style-type: none"> Monthly reports <ul style="list-style-type: none"> MzimbaReport2011_Jan.pdf MzimbaReport2011_Feb.pdf MzimbaReport2011_Mar.pdf MzimbaReport2011_Apr.pdf MzimbaReport2011_May.pdf MzimbaReport2011_Jun.pdf Irrigable area analysis (overview in MzimbaReport2011_Mar.pdf)

Part III - Narrative

- In September, Gibson Nkanaunena met the new Head of Horticulture Department at Mzimba District Agricultural Development Office, Mr Harvey Horrea. He replaced Mr Cosmas Chikapa, whom we met in June and has moved to another district.
 - Their discussion included the current exploratory project, and the fact that it is winding down end September 2011.
 - When asked about plans that DADO Mzimba, Harvey highlighted the following:
 - Current trend is harmonized demonstrations in specific areas that should at least combine technologies from all DADO departments (land resource, horticulture, legumes, field crops, livestock)
 - Stakeholders including NGOs, must indicate their plans for the year that must be taken into account in DADO plans. Stakeholders can provide supplies in case DADO does not have funds
 - Demonstrations shall be done on-farm and at EPA offices
 - Agriculture Sector-Wide Approach (ASWAP) has demonstrations that will be mounted across the district. This program is in its 3rd year and is research-led, with main plot of 7 trials on the Lead-farmers farm, and Baby plots on Follower-farmers' farms
 - There is formation of Farmer Clusters (Associations) for those growing the same crops together
 - Ministry of Education is collaborating with Ministry of Agriculture on a School Health and Nutrition program. This will include orchards and gardens at Primary schools (fruits, vegetables)
 - Field Days are a must and NGOs can also sponsor some of these. Normally there are three Field Days (at vegetative stage, fruiting stage and maturity)
 - There is need for strong collaboration with MoA frontline staff, although others demand sitting/facilitation allowances from NGOs (this leads to them being sidelined)
- Gibson Nkanaunena also met with World Relief Malawi Staff at Mzimba office (Embangweni)
 - Data collection is progressing right now 590 questionnaires done.
 - Field office can do 140 more by end September.
 - Weather station doing ok. Only problem is batteries, need rechargeable ones since the ones being used run out in 2 weeks
 - We discussed Mzoma station, thinking we should go and remove the tower from there
- The field promoters who were collecting survey data, Lauren and Raymon, will officially complete duties on 30th September 2011.

Part IV - Training report for people trained in countries outside the United States.

1. *Did you bring trainees from their country of residence to another country (not the United States) for training (i.e. you brought trainees from Mexico to Costa Rica for a workshop)?*

- No

2. *Did you train people in their own country of residence?*

- No

Part V - Trip Report

Not applicable

Part VI – Materials

Not applicable