**Project Summary**

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| Progress Report 9/19/14  Contract 2014X293.MAN | Team Leader: Dr Rashid & Prof Warner  Consultant: Prof Michael Mann |
| Tasks Completed | Successful testing of the tool with available historical data |
| Tasks Planned for next reporting period | Development of final report including output per hectare estimate and production gap estimates. |

**Progress Summary**

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| Milestone | % |  | Comments |
| Review of Literature | 100 |  | An extensive review of literatures has been completed on the use of remote sensing for agriculture |
| Data collection | 100 |  | Data collected from IFPRI, AgSS, USGS digital elevation models, MODIS satellites, TRMM rainfall, transportation networks, AfriSIS soil properties, Water Land Resource Center GIS products |
| Development of database & summary statistics | 100 |  | All data has been organized and summarized to Kebele level statistics for comparison with AgSS crop yields and production. This includes the use of time-variant indicators such as vegetation indices and rainfall derived from satellite observations. Vegetation indices were collected at a 250m spatial scale, with observations every 2 weeks during 2010-2013. Due to the large processing demands, we utilized a 12 core supercomputing cluster to smooth and summarize statistics for each location. |
| Statistical Analysis | 85 |  | In addition to the findings reported for August, we have estimated wheat output per hectare out-of-sample for the 2010 to 2012 growing seasons. This meets our obligations for “Successful testing of the tool with available historical data” as outlined in our TOR. In order to enhance utilization by policy makers we have been experimenting with data visualization techniques that make output easily interpretable. See description below for more detail. |
| Reports | 25 |  | Deliverables submitted for Aug 31st and this Oct 31st reporting periods. |
| Workshop | 0 |  |  |
| Final Meetings | 0 |  |  |