

# Appendix

## Appendix 1 - Production Value (USD)

| Item                     | Maize | Peanut | Curcas | Livestock | Total |
|--------------------------|-------|--------|--------|-----------|-------|
| <i>Without Project</i>   |       |        |        |           |       |
| <b>Annual Production</b> | 3663  | 2208   | 80     | 1913      | 7864  |
| <i>With Project</i>      |       |        |        |           |       |
| <b>Year 1</b>            | 3968  | 7200   | 0      | 0         | 11168 |
| <b>Year 2</b>            | 4167  | 7560   | 756    | 0         | 12483 |
| <b>Year 3</b>            | 4375  | 7938   | 794    | 0         | 13107 |
| <b>Year 4</b>            | 4594  | 8335   | 833    | 0         | 13762 |
| <b>Year 5</b>            | 4823  | 8752   | 1663   | 0         | 15238 |
| <b>Year 6</b>            | 5065  | 9189   | 1746   | 0         | 16000 |
| <b>Year 7</b>            | 5318  | 9649   | 1833   | 0         | 16800 |
| <b>Year 8</b>            | 5584  | 10131  | 1925   | 0         | 17640 |
| <b>Year 9</b>            | 5863  | 10638  | 2021   | 0         | 18522 |
| <b>Year 10</b>           | 6156  | 11170  | 2122   | 0         | 19448 |
| <b>Year 11</b>           | 6464  | 11728  | 2228   | 0         | 20420 |
| <b>Year 12</b>           | 6787  | 12314  | 2340   | 0         | 21441 |
| <b>Year 13</b>           | 7126  | 12930  | 2457   | 0         | 22513 |
| <b>Year 14</b>           | 7483  | 13577  | 2580   | 0         | 23639 |
| <b>Year 15</b>           | 7857  | 14256  | 2709   | 0         | 24821 |
| <b>Year 16</b>           | 8250  | 14968  | 2844   | 0         | 26062 |
| <b>Year 17</b>           | 8662  | 15717  | 2986   | 0         | 27365 |
| <b>Year 18</b>           | 9095  | 16503  | 3135   | 0         | 28733 |
| <b>Year 19</b>           | 9550  | 17328  | 3292   | 0         | 30170 |
| <b>Year 20</b>           | 10028 | 18194  | 3457   | 0         | 31678 |
| <b>Year 21</b>           | 10529 | 19104  | 3630   | 0         | 33262 |
| <b>Year 22</b>           | 11055 | 20059  | 3811   | 0         | 34926 |

|                |       |       |      |   |       |
|----------------|-------|-------|------|---|-------|
| <b>Year 23</b> | 11608 | 21062 | 4002 | 0 | 36672 |
| <b>Year 24</b> | 12189 | 22115 | 4202 | 0 | 38505 |
| <b>Year 25</b> | 12798 | 23221 | 4412 | 0 | 40431 |
| <b>Year 26</b> | 13438 | 24382 | 4633 | 0 | 42452 |
| <b>Year 27</b> | 14110 | 25601 | 4864 | 0 | 44575 |
| <b>Year 28</b> | 14815 | 26881 | 5107 | 0 | 46804 |
| <b>Year 29</b> | 15556 | 28225 | 5363 | 0 | 49144 |
| <b>Year 30</b> | 16334 | 29636 | 5631 | 0 | 51601 |

**Appendix 2 - Total Operating Expenditure (USD)**

| <b>Categories</b> | <b>Maize</b> | <b>Peanut</b> | <b>Ratanjot</b> | <b>Total crops</b> | <b>Operation &amp; Maintenance</b> | <b>Operating Expenditure</b> |
|-------------------|--------------|---------------|-----------------|--------------------|------------------------------------|------------------------------|
| <b>Year 1</b>     | 805          | 1788          | 1566            | 4158               | 13                                 | 4171                         |
| <b>Year 2</b>     | 432          | 1398          | 999             | 2829               | 19                                 | 2848                         |
| <b>Year 3</b>     | 445          | 1440          | 1029            | 2914               | 20                                 | 2934                         |
| <b>Year 4</b>     | 459          | 1483          | 1060            | 3001               | 22                                 | 3023                         |
| <b>Year 5</b>     | 548          | 1683          | 789             | 3020               | 24                                 | 3044                         |
| <b>Year 6</b>     | 578          | 1745          | 833             | 3156               | 25                                 | 3182                         |
| <b>Year 7</b>     | 610          | 1809          | 880             | 3298               | 27                                 | 3326                         |
| <b>Year 8</b>     | 643          | 1875          | 929             | 3447               | 29                                 | 3477                         |
| <b>Year 9</b>     | 678          | 1944          | 982             | 3603               | 32                                 | 3635                         |
| <b>Year 10</b>    | 715          | 2015          | 1037            | 3766               | 34                                 | 3800                         |
| <b>Year 11</b>    | 754          | 2088          | 1095            | 3937               | 36                                 | 3974                         |
| <b>Year 12</b>    | 795          | 2165          | 1156            | 4117               | 39                                 | 4156                         |
| <b>Year 13</b>    | 839          | 2244          | 1221            | 4304               | 42                                 | 4346                         |
| <b>Year 14</b>    | 885          | 2326          | 1290            | 4501               | 45                                 | 4546                         |
| <b>Year 15</b>    | 933          | 2411          | 1362            | 4706               | 49                                 | 4755                         |
| <b>Year 16</b>    | 984          | 2500          | 1438            | 4922               | 53                                 | 4975                         |
| <b>Year 17</b>    | 1038         | 2591          | 1519            | 5148               | 56                                 | 5204                         |
| <b>Year 18</b>    | 1095         | 2686          | 1604            | 5385               | 61                                 | 5446                         |
| <b>Year 19</b>    | 1154         | 2784          | 1694            | 5633               | 65                                 | 5698                         |

|                |      |      |      |      |     |      |
|----------------|------|------|------|------|-----|------|
| <b>Year 20</b> | 1218 | 2886 | 1789 | 5893 | 70  | 5963 |
| <b>Year 21</b> | 1284 | 2992 | 1890 | 6165 | 76  | 6241 |
| <b>Year 22</b> | 1354 | 3101 | 1996 | 6451 | 81  | 6533 |
| <b>Year 23</b> | 1428 | 3215 | 2108 | 6751 | 87  | 6838 |
| <b>Year 24</b> | 1506 | 3332 | 2226 | 7065 | 94  | 7159 |
| <b>Year 25</b> | 1589 | 3454 | 2351 | 7394 | 101 | 7495 |
| <b>Year 26</b> | 1675 | 3581 | 2483 | 7739 | 109 | 7848 |
| <b>Year 27</b> | 1767 | 3712 | 2622 | 8101 | 117 | 8218 |
| <b>Year 28</b> | 1864 | 3848 | 2769 | 8480 | 126 | 8606 |
| <b>Year 29</b> | 1965 | 3989 | 2924 | 8878 | 136 | 9014 |
| <b>Year 30</b> | 2073 | 4135 | 3088 | 9296 | 146 | 9442 |

### **Appendix 3 - Farm Budget - Case 1 (USD)**

| Year    | Total Inflows | Investment | Incremental Working Capital | Operating Expenditure | Total Outflows | Total Net Benefits | Net Benefit Without Project | Incremental Net Benefits |
|---------|---------------|------------|-----------------------------|-----------------------|----------------|--------------------|-----------------------------|--------------------------|
| Year 1  | 14995         | 156        | 0                           | 4171                  | 4327           | 10668              | 6103                        | 4565                     |
| Year 2  | 12483         | 0          | 78                          | 2848                  | 2925           | 9557               | 6365                        | 3192                     |
| Year 3  | 13107         | 0          | 80                          | 2934                  | 3014           | 10093              | 6639                        | 3454                     |
| Year 4  | 13762         | 441        | 19                          | 3023                  | 3482           | 10280              | 6925                        | 3355                     |
| Year 5  | 15238         | 0          | 124                         | 3044                  | 3168           | 12070              | 7222                        | 4848                     |
| Year 6  | 16000         | 0          | 130                         | 3182                  | 3311           | 12689              | 7533                        | 5156                     |
| Year 7  | 16800         | 0          | 136                         | 3326                  | 3461           | 13338              | 7857                        | 5482                     |
| Year 8  | 17640         | 0          | 142                         | 3477                  | 3619           | 14021              | 8195                        | 5826                     |
| Year 9  | 18522         | 0          | 149                         | 3635                  | 3784           | 14738              | 8547                        | 6191                     |
| Year 10 | 19448         | 0          | 156                         | 3800                  | 3957           | 15491              | 8914                        | 6577                     |
| Year 11 | 20420         | 0          | 164                         | 3974                  | 4138           | 16283              | 9298                        | 6985                     |
| Year 12 | 21441         | 0          | 171                         | 4156                  | 4327           | 17114              | 9698                        | 7416                     |
| Year 13 | 22513         | 0          | 180                         | 4346                  | 4526           | 17987              | 10115                       | 7873                     |
| Year 14 | 23639         | 0          | 188                         | 4546                  | 4734           | 18905              | 10550                       | 8355                     |
| Year 15 | 24821         | 0          | 197                         | 4755                  | 4953           | 19868              | 11003                       | 8865                     |
| Year 16 | 26062         | 0          | 207                         | 4975                  | 5181           | 20880              | 11476                       | 9404                     |
| Year 17 | 27365         | 0          | 217                         | 5204                  | 5421           | 21944              | 11970                       | 9974                     |
| Year 18 | 28733         | 0          | 227                         | 5446                  | 5673           | 23060              | 12484                       | 10576                    |
| Year 19 | 30170         | 0          | 238                         | 5698                  | 5937           | 24233              | 13021                       | 11212                    |
| Year 20 | 31678         | 0          | 250                         | 5963                  | 6213           | 25465              | 13581                       | 11884                    |
| Year 21 | 33262         | 0          | 262                         | 6241                  | 6503           | 26759              | 14165                       | 12594                    |
| Year 22 | 34926         | 0          | 275                         | 6533                  | 6808           | 28118              | 14774                       | 13344                    |
| Year 23 | 36672         | 0          | 289                         | 6838                  | 7127           | 29545              | 15410                       | 14136                    |
| Year 24 | 38505         | 0          | 303                         | 7159                  | 7461           | 31044              | 16072                       | 14972                    |
| Year 25 | 40431         | 0          | 318                         | 7495                  | 7813           | 32618              | 16763                       | 15855                    |
| Year 26 | 42452         | 0          | 333                         | 7848                  | 8181           | 34271              | 17484                       | 16787                    |
| Year 27 | 44575         | 0          | 350                         | 8218                  | 8567           | 36007              | 18236                       | 17771                    |
| Year 28 | 46804         | 0          | 367                         | 8606                  | 8973           | 37830              | 19020                       | 18810                    |
| Year 29 | 49144         | 0          | 385                         | 9014                  | 9399           | 39745              | 19838                       | 19907                    |
| Year 30 | 57535         | 0          | 0                           | 9442                  | 9442           | 48094              | 20691                       | 27403                    |

#### **Appendix 4 - Farm Budget - Case 2 (USD)**

| <b>Year</b> | <b>Total Inflows</b> | <b>Total Outflows</b> | <b>Total Net Benefits Without Financing</b> | <b>Net Benefit Without Project</b> | <b>Incremental Net Benefits Before Financing</b> | <b>Net Financing</b> | <b>Total Net Benefits After Financing</b> | <b>Incremental Net Benefits After Financing</b> |
|-------------|----------------------|-----------------------|---|------------------------------------|--|----------------------|---|---|
| Year 1      | 11168                | 4327                  | 6841  | 6103                               | 738  | 1950                 | 8791                                      | 2688  |
| Year 2      | 12483                | 2925                  | 9557  | 6365                               | 3192   | -1190                | 8368                                      | 2002  |
| Year 3      | 13107                | 3014                  | 10093                                       | 6639                               | 3454   | -1082                | 9011                                      | 2371  |
| Year 4      | 13762                | 3482                  | 10280                                       | 6925                               | 3355   | 0                    | 10280                                     | 3355  |
| Year 5      | 15238                | 3168                  | 12070                                       | 7222                               | 4848   | 0                    | 12070                                     | 4848  |
| Year 6      | 16000                | 3311                  | 12689                                       | 7533                               | 5156   | 0                    | 12689                                     | 5156  |
| Year 7      | 16800                | 3461                  | 13338                                       | 7857                               | 5482   | 0                    | 13338                                     | 5482  |
| Year 8      | 17640                | 3619                  | 14021                                       | 8195                               | 5826   | 0                    | 14021                                     | 5826  |
| Year 9      | 18522                | 3784                  | 14738                                       | 8547                               | 6191   | 0                    | 14738                                     | 6191  |
| Year 10     | 19448                | 3957                  | 15491                                       | 8914                               | 6577   | 0                    | 15491                                     | 6577  |
| Year 11     | 20420                | 4138                  | 16283                                       | 9298                               | 6985   | 0                    | 16283                                     | 6985  |
| Year 12     | 21441                | 4327                  | 17114                                       | 9698                               | 7416   | 0                    | 17114                                     | 7416  |
| Year 13     | 22513                | 4526                  | 17987                                       | 10115                              | 7873   | 0                    | 17987                                     | 7873  |
| Year 14     | 23639                | 4734                  | 18905                                       | 10550                              | 8355   | 0                    | 18905                                     | 8355  |
| Year 15     | 24821                | 4953                  | 19868                                       | 11003                              | 8865   | 0                    | 19868                                     | 8865  |
| Year 16     | 26062                | 5181                  | 20880                                       | 11476                              | 9404   | 0                    | 20880                                     | 9404  |
| Year 17     | 27365                | 5421                  | 21944                                       | 11970                              | 9974   | 0                    | 21944                                     | 9974  |
| Year 18     | 28733                | 5673                  | 23060                                       | 12484                              | 10576  | 0                    | 23060                                     | 10576   |
| Year 19     | 30170                | 5937                  | 24233                                       | 13021                              | 11212  | 0                    | 24233                                     | 11212   |
| Year 20     | 31678                | 6213                  | 25465                                       | 13581                              | 11884  | 0                    | 25465                                     | 11884   |
| Year 21     | 33262                | 6503                  | 26759                                       | 14165                              | 12594  | 0                    | 26759                                     | 12594   |
| Year 22     | 34926                | 6808                  | 28118                                       | 14774                              | 13344  | 0                    | 28118                                     | 13344   |
| Year 23     | 36672                | 7127                  | 29545                                       | 15410                              | 14136  | 0                    | 29545                                     | 14136   |
| Year 24     | 38505                | 7461                  | 31044                                       | 16072                              | 14972  | 0                    | 31044                                     | 14972   |
| Year 25     | 40431                | 7813                  | 32618                                       | 16763                              | 15855  | 0                    | 32618                                     | 15855   |
| Year 26     | 42452                | 8181                  | 34271                                       | 17484                              | 16787  | 0                    | 34271                                     | 16787   |
| Year 27     | 44575                | 8567                  | 36007                                       | 18236                              | 17771  | 0                    | 36007                                     | 17771   |
| Year 28     | 46804                | 8973                  | 37830                                       | 19020                              | 18810  | 0                    | 37830                                     | 18810   |
| Year 29     | 49144                | 9399                  | 39745                                       | 19838                              | 19907  | 0                    | 39745                                     | 19907   |
| Year 30     | 57535                | 9442                  | 48094                                       | 20691                              | 27403  | 0                    | 48094                                     | 27403   |

#### **Appendix 5 - Annual Present Values**

| <b>Year</b> | <b>Present Value of Incremental Net Benefit After Financing</b> | <b>Present Value of Net Benefit After Financing</b> |
|-------------|---|---|
| Year 1      | 2422  | 7920  |
| Year 2      | 1625  | 6792  |
| Year 3      | 1734  | 6588  |
| Year 4      | 2210  | 6772  |
| Year 5      | 2877  | 7163  |
| Year 6      | 2756  | 6784  |
| Year 7      | 2640  | 6425  |
| Year 8      | 2528  | 6084  |

|                |       |        |
|----------------|-------|--------|
| <b>Year 9</b>  | 2420  | 5761   |
| <b>Year 10</b> | 2316  | 5456   |
| <b>Year 11</b> | 2216  | 5166   |
| <b>Year 12</b> | 2120  | 4892   |
| <b>Year 13</b> | 2027  | 4632   |
| <b>Year 14</b> | 1938  | 4386   |
| <b>Year 15</b> | 1853  | 4153   |
| <b>Year 16</b> | 1771  | 3932   |
| <b>Year 17</b> | 1692  | 3722   |
| <b>Year 18</b> | 1616  | 3524   |
| <b>Year 19</b> | 1544  | 3336   |
| <b>Year 20</b> | 1474  | 3159   |
| <b>Year 21</b> | 1407  | 2990   |
| <b>Year 22</b> | 1343  | 2831   |
| <b>Year 23</b> | 1282  | 2680   |
| <b>Year 24</b> | 1223  | 2536   |
| <b>Year 25</b> | 1167  | 2401   |
| <b>Year 26</b> | 1113  | 2273   |
| <b>Year 27</b> | 1062  | 2151   |
| <b>Year 28</b> | 1012  | 2036   |
| <b>Year 29</b> | 965   | 1927   |
| <b>Year 30</b> | 1197  | 2101   |
| <b>Total</b>   | 53553 | 130571 |