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INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

FROM

THE GLOBAL AGRICULTURE AND FOOD SECURITY PROGRAM

IN THE AMOUNT OF US\$22.9 MILLION

TO THE

UNITED REPUBLIC OF TANZANIA

FOR AN

EXPANDING RICE PRODUCTION PROJECT

March 11, 2015

Agriculture Global Practice (GFADR)  
Africa Region

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**CURRENCY EQUIVALENTS**  
(Exchange Rate Effective: January 31, 2015)

Currency Unit = TZS  
1,750 TZS = US\$1

**FISCAL YEAR**  
July 1 – June 31

**ABBREVIATIONS AND ACRONYMS**

|       |  |
|-------|--|
| AfDB  | African Development Bank                                 |
| AFSP  | Accelerated Food Security Project                        |
| AGRA  | Alliance for a Green Revolution in Africa                |
| ASA   | Agricultural Seed Agency                                 |
| ASDP  | Agricultural Sector Development Project                  |
| ASDS  | Agricultural Sector Development Strategy                 |
| BOT   | Bank of Tanzania   |
| BRN   | Big Results Now  |
| CAADP | Comprehensive Africa Agriculture Development Program     |
| CAG   | Controller and Auditor General                           |
| CAS   | Country Assistance Strategy                              |
| CARD  | Coalition for African Rice Development                   |
| CPAR  | Country Procurement Assessment Report                    |
| DA    | Designated Account                                       |
| DAICO | District Agriculture Irrigation and Cooperatives Officer |
| DAP   | Diammonium phosphate                                     |
| DED   | District Executive Director                              |
| DFID  | Department for International Development                 |
| DPP   | Director for Policy and Planning                         |
| EAAP  | Eastern Africa Agricultural Productivity Program         |
| EIA   | Environmental Impact Assessment                          |
| EIRR  | Economic Internal Rate of Return                         |
| ERPP  | Expanding Rice Production Project                        |
| ESMF  | Environmental and Social Management Framework            |
| GAFSP | Global Agriculture and Food Security Program             |
| GDP   | Gross Domestic Product                                   |
| IBRD  | International Bank for Reconstruction and Development    |
| IDA   | International Development Association                    |
| IFAD  | International Fund for Agriculture Development           |
| IFRs  | Interim Financial Reports                                |
| IO    | Irrigator Organization                                   |
| IPMP  | Integrated Pest Management Plan                          |
| JICA  | Japan International Cooperation Agency                   |

|          |  |
|----------|--|
| JSC      | Joint Steering Committee   |
| KATRIN   | Kilombero Agricultural Research and Training Institute               |
| LGA      | Local Government Authority   |
| MAFC     | Ministry of Agriculture Food Security and Cooperatives               |
| MANR     | Ministry of Agriculture and Natural Resources                        |
| M&E      | Monitoring and Evaluation  |
| MIS      | Management Information Systems                                       |
| MKUKUTA  | Mkakati wa Kukuza Uchumi na Kupunguza Umaskini                       |
| MKUZU    | Mkakati wa Kukuza Uchumi Zanzibar                                    |
| MTEF     | Medium Term Expenditure Framework                                    |
| NAIVS    | National Agriculture Inputs Voucher Scheme                           |
| NCB      | National Competitive Bidding   |
| NPV      | Net Present Value  |
| NRDS     | National Rice Development Strategy                                   |
| NSGRP    | National Strategy for Growth and Reduction of Poverty                |
| ORAF     | Operational Risk Assessment Framework                                |
| PDO      | Project Development Objective  |
| PMO-RALG | Prime Minister Office – Regional Administration and Local Government |
| PMU      | Procurement Management Unit  |
| PPA      | Public Procurement Act   |
| RAP      | Resettlement Action Plan   |
| RPF      | Resettlement Policy Framework  |
| SOE      | Statement of Expenditure   |
| SRI      | System of Rice Intensification                                       |
| SWAp     | Sector Wide Approach   |
| TAFSIP   | Tanzania Agriculture and Food Security Investment Plan               |
| TOSCI    | Tanzania Official Seed Certification Institute                       |
| TSC      | Technical Steering Committee   |
| TZS      | Tanzania Shillings   |
| UNDB     | United Nations Development Business                                  |
| UNICTRAL | United Nations Commission on International Trade Law                 |
| USAID    | United States Agency for International Development                   |
| WB       | World Bank   |
| ZARI     | Zanzibar Agricultural Research Institute                             |
| ZITSU    | Zonal Irrigation and Technical Services Unit                         |
| ZSGRP    | Zanzibar Strategy for Growth and Reduction of Poverty                |

|                                  |                  |
|----------------------------------|------------------|
| Regional Vice President:         | Makhtar Diop     |
| Country Director:                | Philippe Dongier |
| Senior Global Practice Director: | Juergen Voegelé  |
| Practice Manager:                | Tijan M. Sallah  |
| Task Team Leader:                | Abel Lufafa      |

**TANZANIA**  
**EXPANDING RICE PRODUCTION PROJECT**

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# PAD DATA SHEET

Tanzania

Expanding Rice Production Project(P144497)

## PROJECT APPRAISAL DOCUMENT

AFRICA

GFADR

Report No.: PAD664

| Basic Information  |   |                  |  |
|--|---|------------------|--|
| Project ID   | EA Category                             | Team Leader      |  |
| P144497  | B – Partial Assessment                  | Abel Lufafa      |  |
| Lending Instrument   | Fragile and/or Capacity Constraints [ ] |                  |  |
| Investment Project Financing   | Financial Intermediaries [ ]            |                  |  |
|  | Series of Projects [ ]                  |                  |  |
| Project Implementation Start Date  | Project Implementation End Date         |                  |  |
| 15-April-2015  | 30-April-2020                           |                  |  |
| Expected Effectiveness Date  | Expected Closing Date                   |                  |  |
| 15-April-2015  | 30-April -2020                          |                  |  |
| Joint IFC  | No                                      |                  |  |
| Practice Manager   | Senior Director                         | Country Director | Regional Vice President                                |
| Tijan M. Sallah  | Juergen Voegele                         | Philippe Dongier | Makhtar Diop   |
| Borrower: Ministry of Finance, United Republic of Tanzania                                       |   |                  |  |
| Responsible Agency: Ministry of Agriculture, Food Security and Cooperatives                      |   |                  |  |
| Contact:   | S. Kaduma                               | Title:           | Permanent Secretary                                    |
| Telephone  | +255 (22) 2862064                       | Email:           | <a href="mailto:psk@kilimo.go.tz">psk@kilimo.go.tz</a> |
| Approval Authority   |   |                  |  |
| Approval Authority   |   |                  |  |
| RVP  |   |                  |  |
| please explain   |   |                  |  |
| The project is funded out of the Global Agriculture and Food Security Program (GAFSP) Trust Fund |   |                  |  |

| <b>Project Financing Data(in US\$ Million)</b>   |        |                                     |           |                          |           |                               |  |                             |       |  |
|--|--------|-------------------------------------|-----------|--------------------------|-----------|-------------------------------|--|-----------------------------|-------|--|
| <input type="checkbox"/>   | Loan   | <input checked="" type="checkbox"/> | Grant     | <input type="checkbox"/> | Guarantee |                               |  |                             |       |  |
| <input type="checkbox"/>   | Credit | <input type="checkbox"/>            | IDA Grant | <input type="checkbox"/> | Other     |                               |  |                             |       |  |
| Total Project Cost (US\$M):  |        |                                     | 27.34     |                          |           | Total Bank Financing (US\$M): |  |                             | 22.90 |  |
| Financing Gap:   |        |                                     | 0.00      |                          |           |                               |  |                             |       |  |
| <b>Financing Source</b>  |        |                                     |           |                          |           |                               |  |                             |       |  |
|  |        |                                     |           |                          |           |                               |  | <b>Amount (US\$ M)</b>      |       |  |
| Borrower   |        |                                     |           |                          |           |                               |  | 0.00                        |       |  |
| Global Agriculture and Food Security Program Beneficiaries   |        |                                     |           |                          |           |                               |  | 22.90                       |       |  |
|  |        |                                     |           |                          |           |                               |  | 4.44                        |       |  |
| Total  |        |                                     |           |                          |           |                               |  | 27.34                       |       |  |
| <b>Expected Disbursements (in US\$ Million)</b>  |        |                                     |           |                          |           |                               |  |                             |       |  |
| Fiscal Year  | 2015   | 2016                                | 2017      | 2018                     | 2019      | 2020                          |  |                             |       |  |
| Annual   | 2.50   | 5.00                                | 8.00      | 5.00                     | 1.40      | 1.00                          |  |                             |       |  |
| Cumulative   | 2.50   | 7.50                                | 15.50     | 20.50                    | 21.90     | 22.9                          |  |                             |       |  |
| <b>Proposed Development Objective(s)</b>   |        |                                     |           |                          |           |                               |  |                             |       |  |
| To increase the productivity and production of rice among smallholders in targeted areas of Morogoro and Zanzibar. |        |                                     |           |                          |           |                               |  |                             |       |  |
| <b>Components</b>  |        |                                     |           |                          |           |                               |  |                             |       |  |
| <b>Component Name</b>  |        |                                     |           |                          |           |                               |  | <b>Cost (US\$ Millions)</b> |       |  |
| Sustainable seed systems   |        |                                     |           |                          |           |                               |  | 3.38                        |       |  |
| Improving crop productivity through better irrigation and crop management  |        |                                     |           |                          |           |                               |  | 18.48                       |       |  |
| Innovative marketing strategies  |        |                                     |           |                          |           |                               |  | 2.37                        |       |  |
| Project management and coordination  |        |                                     |           |                          |           |                               |  | 3.11                        |       |  |
| <b>Institutional Data</b>  |        |                                     |           |                          |           |                               |  |                             |       |  |
| <b>Sector Board</b>  |        |                                     |           |                          |           |                               |  |                             |       |  |
| Agriculture  |        |                                     |           |                          |           |                               |  |                             |       |  |

| <b>Sectors / Climate Change</b>   |   |     |                          |                          |
|---|---|-----|--------------------------|--------------------------|
| Sector (Maximum 5 and total % must equal 100)   |   |     |                          |                          |
| Major Sector  | Sector  | %   | Adaptation Co-benefits % | Mitigation Co-benefits % |
| AH  | Crops   | 51  | 0                        | 0                        |
| AI  | Irrigation & drainage                                     | 31  | 0                        | 0                        |
| BL  | Public Administration – Agriculture, Fishing and Forestry | 13  | 0                        | 0                        |
| AB  | Agricultural extension and research                       | 5   | 0                        | 0                        |
| Total   |   | 100 |                          |                          |
| <input checked="" type="checkbox"/> I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project. |   |     |                          |                          |
| <b>Themes</b>   |   |     |                          |                          |
| Theme (Maximum 5 and total % must equal 100)  |   |     |                          |                          |
| Major theme   | Theme   | %   |                          |                          |
| Rural development   | Rural services and infrastructure                         | 83  |                          |                          |
| Rural development   | Rural markets   | 17  |                          |                          |
| Total   |   | 100 |                          |                          |
| <b>Compliance</b>   |   |     |                          |                          |
| <b>Policy</b>   |   |     |                          |                          |
| Does the project depart from the CAS in content or in other significant respects?   |   |     | Yes [ ]                  | No [ X ]                 |
| Does the project require any waivers of Bank policies?  |   |     | Yes [ ]                  | No [ X ]                 |
| Have these been approved by Bank management?  |   |     | Yes [ ]                  | No [ ]                   |
| Is approval for any policy waiver sought from the Board?  |   |     | Yes [ ]                  | No [ ]                   |
| Does the project meet the Regional criteria for readiness for implementation?   |   |     | Yes [ X ]                | No [ ]                   |
| <b>Safeguard Policies Triggered by the Project</b>  |   |     | <b>Yes</b>               | <b>No</b>                |

|   |                                     |                               |                  |
|---|-------------------------------------|-------------------------------|------------------|
| Environmental Assessment OP/BP 4.01   |                                     | X                             |                  |
| Natural Habitats OP/BP 4.04   |                                     | X                             |                  |
| Forests OP/BP 4.36  |                                     |                               | X                |
| Pest Management OP 4.09   |                                     | X                             |                  |
| Physical Cultural Resources OP/BP 4.11  |                                     |                               | X                |
| Indigenous Peoples OP/BP 4.10   |                                     |                               | X                |
| Involuntary Resettlement OP/BP 4.12   |                                     | X                             |                  |
| Safety of Dams OP/BP 4.37   |                                     |                               | X                |
| Projects on International Waterways OP/BP 7.50  |                                     |                               | X                |
| Projects in Disputed Areas OP/BP 7.60   |                                     |                               | X                |
|   |                                     |                               |                  |
| <b>Legal Covenants</b>  |                                     |                               |                  |
| <b>Name</b>   | <b>Recurrent</b>                    | <b>Due Date</b>               | <b>Frequency</b> |
| Implementation Manual   |                                     | One month after effectiveness |                  |
| The Recipient shall adopt, not later than one month after the Effectiveness Date, a Project Implementation Manual (“PIM”) in form and substance satisfactory to the World Bank  |                                     |                               |                  |
| Retroactive financing   |                                     |                               |                  |
| No withdrawal shall be made for payments made prior to the date of the Grant Agreement, except that withdrawals up to an aggregate amount not to exceed three million United States Dollars (US\$3,000,000) equivalent may be made for payments made prior to this date but on or after October 1, 2014, for Eligible Expenditures under Category 1 |                                     |                               |                  |
| Provision of subsidies under component 2.2  |                                     |                               |                  |
| Prior to commencing the implementation of Part B.2(iv) of the Project (see Schedule 2, Section I part E of the Grant Agreement), the Recipient shall, through MAFC enter into a Subsidy Payment Agreement with each of the Selected Vendors on the terms and conditions satisfactory to the World Bank  |                                     |                               |                  |
| <b>Team Composition</b>   |                                     |                               |                  |
| <b>Bank Staff</b>   |                                     |                               |                  |
| <b>Name</b>   | <b>Title</b>                        | <b>Specialization</b>         | <b>Unit</b>      |
| Abel Lufafa   | Sr. Agricultural Specialist         | TTL                           | GFADR            |
| Mercy Mataro Sabai  | Sr. Financial Management Specialist | Finance                       | GGODR            |
| Helen Z. Shahriari  | Sr. Social Scientist                | Social Safeguards             | GSURR            |
| Mei Wang  | Sr. Counsel                         | Legal                         | LEGAM            |



|                             |                                      |                          |                |               |                 |
|-----------------------------|--------------------------------------|--------------------------|----------------|---------------|-----------------|
| Donald Paul Mnene           | Sr. Procurement Specialist           | Procurement              | GGODR          |               |                 |
| Jane A. N. Kibbassa         | Sr. Environmental Specialist         | Environmental Safeguards | GENDR          |               |                 |
| Faith-Lucy Matumbo          | Program Assistant                    | Team Support             | AFCE1          |               |                 |
| Judith Mziray               | Program Assistant                    | Team Support             | AFCE1          |               |                 |
| Aparajita Goyal             | Economist                            | Economist                | GFADR          |               |                 |
| Kazuhiro Yoshida            | Sr. Irrigation Engineer              | Irrigation               | GFADR          |               |                 |
| Hawanty Page                | Sr. Program Assistant                | Quality Control/Review   | GFADR          |               |                 |
| Christiaan Nieuwoudt        | Finance Officer                      | Disbursement             | CTRLA          |               |                 |
| Valens Mwumvaneza           | Sr. Rural Development Specialist     | Agric. input provision   | GFADR          |               |                 |
| Zainab Semgalawe            | Sr. Rural Development Specialist     | Rural economy            | GFADR          |               |                 |
| Raymond Mbishi              | Consultant                           | Procurement              | GGODR          |               |                 |
| Mohammad Nadeem             | Legal Analyst                        | Legal                    | LEGAM          |               |                 |
| <b>Non-Bank Staff</b>       |                                      |                          |                |               |                 |
| <b>Name</b>                 | <b>Title</b>                         | <b>Office Phone</b>      | <b>City</b>    |               |                 |
| Leul Khasay Gezehegn        | Consultant                           | +251 91-1692006          | Addis Ababa    |               |                 |
| <b>Locations</b>            |                                      |                          |                |               |                 |
| <b>Country</b>              | <b>First Administrative Division</b> | <b>Location</b>          | <b>Planned</b> | <b>Actual</b> | <b>Comments</b> |
| United Republic of Tanzania | Morogoro Region                      | Morogoro Region          | X              |               |                 |
|                             | Zanzibar Central/South               | Zanzibar                 | X              |               |                 |
|                             | Zanzibar North                       | Zanzibar                 | X              |               |                 |
|                             | Zanzibar West                        | Zanzibar                 | X              |               |                 |
|                             | Pemba North                          | Zanzibar                 | X              |               |                 |
|                             | Pemba South                          | Zanzibar                 | X              |               |                 |

## I. STRATEGIC CONTEXT

### A. Country Context

1. Tanzania is a country of 49.2 million people, growing at an average of 3 percent annually. Tanzania has been experiencing high rates of economic growth driven by economic liberalization, sound macroeconomic policy management, and expanding public sector spending. Growth accelerated from an average of 3.5 percent per year during the 1990s to around 7 percent over the past decade. Inflation was low from 2000 to 2005, picked up pace from 2006 to 2011, when it was briefly in double digits, but has now settled back to around 6 percent. Fiscal policy has been largely prudent accompanied by strong growth in tax revenues.

2. Despite this impressive macro-fiscal performance, poverty has declined only slowly. In November 2013, the Government announced the new official poverty figures. The percentage of people below the basic needs poverty level in Tanzania Mainland has fallen from 33.3 percent in 2007 to 28.2 percent in 2012. Rural poverty has declined from 37.4 percent to 33.3 percent over the same period. The main beneficiaries of the country's economic growth have been concentrated in urban areas, and in capital-intensive sectors, such as mining, communication, construction, and banking. Agricultural growth, so essential to the reduction of rural poverty, has been slower than the growth rate for the larger economy, averaging 4.2 percent per year over the past 10 years.

### B. Sectoral and Institutional Context

3. The agriculture sector remains strategic for Tanzania's economic growth and development. It is a major contributor to food security, economic growth and poverty alleviation. It is a key element of the Long Term Perspective Plan 2011-2026 – the road map to middle income country status, and it features prominently in the Mainland's National Strategy for Growth and Reduction of Poverty and the Zanzibar Strategy for Growth and Reduction of Poverty as a key driver of broad-based and pro-poor economic growth. The sector accounts for approximately 75 percent of employment, 25 percent of Gross Domestic Product (GDP), and 35 percent of export earnings

4. Overall, the sector has been growing at an average annual rate of 4 percent over the last decade, below the 5 percent growth rate that was envisioned when the Agriculture Sector Development Strategy (ASDS) was formulated in 2001. Among others, the main challenge in the sector is the low productivity - with smallholder crop yields mostly stagnating at only 20–30 percent of their potential. Indeed, most of the recent sector growth has been derived from expanding the area under production rather than increasing production per unit of input. This is partly because of the limited adoption of improved agricultural productivity enhancing technologies by a plurality of farmers<sup>1</sup>.

5. Tanzania has now committed itself to the Comprehensive Africa Agriculture Development Program (CAADP) goal of achieving a six percent average annual growth rate for the agricultural sector and has prepared the Tanzania Agriculture and Food Security Investment Plan (TAFSIP) which articulates the requisite and rationalized investments necessary to achieve the six percent growth in agriculture. The TAFSIP proposes investments in a number of areas including in irrigation development and sustainable use of land and water resources; agricultural productivity

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<sup>1</sup> Only 16 percent of farmers in Tanzania use improved seed varieties and 17 percent use organic fertilizer (2010/11 National Panel Survey)

and rural commercialization; rural infrastructure and market access and trade; private sector development; and food and nutrition security.

6. Both the Mainland and Zanzibar have identified the rice subsector as a strategic priority for agriculture development. This is due to the subsector's potential in improving food security and generating income for a large number of low income, rural households<sup>2</sup>. However, the subsector is also plagued by low productivity because of the limited adoption and use of appropriate inputs and technologies. Average rice yields for the country have stagnated at about 1.2 to 2 ton/ha against a demonstrated on-farm potential of 6 to 8 ton/ha. Consequently, even when total harvested area increased by 90 percent (from 0.5 million ha in 2002 to 0.9 million ha in 2012) between 2002 and 2012, total production increased by only 53 percent (from 500,000 tons to 990,000 tons). Although consumption increased by only 30 percent over the same period (from 845,000 tons to 1,100,000 tons), still there was a gap of 104,000 tons in an average year that was filled by imports.

7. Since 2011, rice imports have tended to decline sharply (due to expanded production and protection through a common external tariff imposed by the East African Community-EAC) and in good years, the country has managed to export rice to neighboring countries. However, the continuing rapid expansion of rice area is unlikely, and this combined with rapid urbanization and income growth is contributing to an even faster rise in consumer demand for rice. Improved productivity is essential to meet this demand. The policy environment for the subsector – especially the EAC common external tariff and unpredictable export bans still constrain increased productivity and competitiveness (see Annex 8 on the rice sector policy in the EAC).

8. The country has conceived strategies to improve the productivity of the rice subsector. In the Mainland, a National Rice Development Strategy (NRDS) was developed encompassing among others, the improvement of seed systems and fertilizer distribution; improving irrigation and water harvesting technology; developing improved varieties, production and integrated crop management options; and post-harvest management and marketing of rice. In Zanzibar, the Agricultural Transformation Initiative was developed to address challenges to the rice subsector through: i) production and distribution of high yielding seeds; ii) improved access to affordable and timely tillage operations; and iii) improved access to appropriate and adequate fertilization, proper and timely weeding, and efficient use of water.

9. A number of donors including the World Bank, International Fund for Agriculture Development (IFAD), African Development Bank (AfDB), Irish Aid, Japan International Cooperation Agency (JICA), Alliance for a Green Revolution in Africa (AGRA), United States Agency for International Development (USAID), Department for International Development (DFID) and the Coalition for African Rice Development (CARD), among others, provide support to various aspects of these strategies (see Annex 7).

10. Even with the relatively high number of investments in support of the rice subsector, there are still challenges in the seed system, use of improved production practices, efficient use of water resources, and rice marketing. For example, in the mainland alone, 44,400 tons of seed are required for the 1.2 million ha that are cropped annually but current seed production stands at only 1,800

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<sup>2</sup> The crop is grown by over a million farmers (about one million farmers in the Mainland and seventy two thousand farmers in Zanzibar). On the Mainland, rice is the second most important cereal after maize, is recognized as both a valuable food and cash crop, and is a preferred staple in the urban markets. In Zanzibar, rice is the most important cereal grain.

tons. As a consequence, fewer than 15 percent of paddy farmers are believed to be growing improved varieties. Whereas research and extension trials have confirmed the value of fertilizer use, row planting, and water saving technologies broadly categorized under the rubric of the System of Rice Intensification (SRI), less than one percent of farmers growing paddy have been exposed to these management practices. Also, most farmers can only produce one crop a year because of a combination of poor irrigation infrastructure and water management. This project seeks to address these challenges for a select number of areas both in the Mainland and in Zanzibar.

### **C. Higher Level Objectives to which the Project Contributes**

11. The proposed project is fully aligned with the National Strategy for Growth and Reduction of Poverty (NSGRP) for both Tanzania Mainland and Zanzibar (known respectively by their Swahili acronyms as MKUKUTA II and MKUZA II), and their associated national development plans including the Vision 2025, the Long Term Perspective Plan 2011/12-2025/26, and the Tanzania Five Year Development Plan 2011/12-2015/16. Each of these commitments highlights agriculture's importance to Tanzania's economy, and emphasizes the need to commercialize the agricultural sector through productivity growth and expanding trade.

12. The project is aligned with the country's Comprehensive Africa Agriculture Development Program (CAADP) initiative. It contributes to three key strategic objectives of the Tanzania Agriculture and Food Security Investment Plan (TAFSIP): i) accelerated productivity growth and commercial agriculture, ii) improved and expanded rural marketing infrastructure, and iii) enhanced household and national food and nutrition security.

13. The Government of Tanzania has identified rice as a strategic priority for agricultural development given its potential in improving food security and generating income for large numbers of low income, rural households. The country aims to double its rice production by 2018 in order to meet its domestic demand, and to expand exports to neighboring countries. These priorities are articulated in the country's *National Rice Development Strategy*<sup>3</sup>.

14. The project is also aligned with the newly defined Big Results Now (BRN) initiative which prioritizes investments in paddy (as well as maize and sugar) production and marketing in order to speed the growth of agricultural GDP, improve food and nutritional security, and reduce rural poverty. The BRN specifically calls for the strengthening of smallholder rice production and marketing schemes through professional management. The project will support early implementation of this model.

15. The Project is aligned with the World Bank's Country Assistance Strategy (CAS) for Tanzania for the period 2012-2015 endorsed by the Board on May 9, 2011. It contributes, in particular, to Objective 1: to promote inclusive, sustainable private sector-led growth through increasing productivity and income. The Project is expected to contribute to CAS Outcome 1.2: increased productivity and commercialization of agriculture. The Project is also fully in line with the World Bank's Strategy for Africa, particularly the theme on competitiveness and employment.

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<sup>3</sup> United Republic of Tanzania (2009). National Rice Development Strategy. Ministry of Agriculture, Food Security and Cooperatives, Dar es Salaam.

## II. PROJECT DEVELOPMENT OBJECTIVE

### A. Project Development Objective (PDO)

16. The PDO is to increase the productivity and production of rice among smallholders in targeted areas of Morogoro and Zanzibar.

### B. Project Beneficiaries

17. The direct project beneficiaries are 33,069 smallholder farm households in the selected irrigation schemes of Tanzania Mainland (24,372 households) and Zanzibar (8,697 households). Based on the 2012 population census, these households encompass approximately 160,000 people. Indirect beneficiaries include laborers and consumers from smallholder farm households not directly supported by the project, input suppliers, rice traders and processors and consumers.

### C. PDO Level Results Indicators

18. The PDO will be measured using four indicators: (i) the average yields of targeted smallholder farmers growing paddy; (ii) additional quantity of rice produced in targeted areas; and (iii) the number of direct project beneficiaries (disaggregated by gender). Intermediate indicators will include: (i) the number of farmers adopting improved seed varieties; (ii) the area provided with new irrigation and drainage services; (iii) the area provided with improved irrigation and drainage services; (iv) the number of water users provided with new irrigation and drainage services; (v) the number of water users provided with improved irrigation and drainage services; (vi) the number of operational water user associations created and/or strengthened; (vii) the number of farmers adopting SRI management techniques; (viii) additional quantity of rice marketed in targeted areas; (ix) the ratio of farm-gate to wholesale prices; and (x) the timely completion of annual Monitoring and Evaluation (M&E) reports.

## III. PROJECT DESCRIPTION

### A. Project Components

19. The project has four main components: (i) Sustainable seed systems; (ii) Improving crop productivity through better irrigation and crop management; (iii) Innovative marketing strategies; and (iv) Project management and coordination.

***Component 1: Sustainable Seed Systems: US\$3.38 million (US\$2.27 million for Tanzania Mainland and US\$1.11 million for Zanzibar)***

20. The objective of this component is to enhance the adoption and sustained use of improved rice varieties that have been released by the research system. This will support on-farm demonstrations to introduce the new varieties to farmers, the multiplication and distribution of preferred varieties, and improvements in quality assurance for rice seed.

21. **Subcomponent 1.1: Introducing new varieties to smallholder farmers.** Tanzania has thirteen improved rice varieties released for multiplication and subsequent use by smallholder farmers. These are grown, however, on less than 15 percent of the total area cropped to rice. Most rice growers still plant low yielding varieties, and have yet to be introduced to the improved

varieties. The project will support two years of on-farm demonstrations in the targeted regions of the Tanzania Mainland and Zanzibar in order to confirm the preferences of farmers for the new varieties. The demonstrations will be organized and monitored with support from national rice breeders to assure the information collected is integrated back into national breeding programs. The project will also fund field days, exchange visits and the broader dissemination of information about the new varieties to rice farmers in other regions. The project will fund goods and equipment, consultancy services, and operational costs.

**22. Subcomponent 1.2: Promoting the sustainable production and delivery of preferred varieties.** Seed multiplication and distribution systems will be strengthened for those improved rice varieties preferred by smallholder farmers. The project will: (i) strengthen the capacity of the Kilombero Agricultural Research and Training Institute (KATRIN) and the Zanzibar Agricultural Research Institute (ZARI) to produce the requisite quality and quantity of pre-basic seed; (ii) support the Agricultural Seed Agency (ASA) and the Seed Unit of the Ministry of Agriculture and Natural Resources (MANR) in Zanzibar to produce adequate quantities of basic seed (mainly through the construction of irrigation infrastructure to support expanded production); and (iii) encourage private seed companies to engage in production of certified seed.<sup>4</sup> Commercial seed companies will be encouraged to expand investment in wholesale and retail trade of rice seed as well as contract seed production with small-scale farmers mainly by assuring them a market through the subsidy scheme under subcomponent 2.2. The project will fund goods and equipment, consultancy services, and operational costs.

**23. Subcomponent 1.3: Strengthening seed quality control.** The objective of this subcomponent is to ensure that rice seed available to farmers is of the right quality. The project will strengthen seed quality control systems to assure genetic purity, germination capacity, physical purity and freedom from diseases. Support will be provided for the rehabilitation and operation of seed laboratory infrastructure at ASA on the Mainland and Kizimbani in Zanzibar, and for the purification of contaminated varieties by national crop breeders (where contamination occurs). Support will also be provided to Tanzania Official Seed Certification Institute (TOSCI) to strengthen the inspection and testing of pre-basic and basic seed, and the certification of rice seed that is multiplied by ASA, MANR and private seed companies. The project will fund goods, consulting services and operational costs.

***Component 2: Improving crop productivity through better irrigation and crop management: US\$ 14.04 million (US\$10.34 million for Tanzania Mainland and US\$3.7 million for Zanzibar)***

24. The component will support expansion and/or rehabilitation of selected irrigation schemes, and promote adoption of improved agronomic practices. This component aims to improve smallholder rice production and productivity through improved crop and water management.

**25. Subcomponent 2.1: Expansion and rehabilitation of irrigation infrastructure.** This subcomponent will improve water availability for dry season irrigation and water use efficiency of

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<sup>4</sup> Since rice is largely a self-pollinated crop, farmers can readily save seed from their previous year's harvest without short-term reductions in yield performance. This undermines commercial incentives to produce rice seed. Seed companies are testing the commercial viability of this market. If there are shortfalls in certified seed production by private companies, these may be temporarily resolved with seed from the ASA or MANR Seed Unit on an exceptional basis. The aim would be to get new varieties more quickly into the hands of farmers. Sustained production of these varieties will only be encouraged through private companies or, in outlying areas, through quality declared seed production.

irrigation during both the wet and dry seasons. The project will expand and/or rehabilitate irrigation infrastructure of five smallholder irrigation schemes on the Mainland, and eight smallholder irrigation schemes in Zanzibar<sup>5</sup>. On the Mainland, 250 ha of irrigated area will be rehabilitated and 1750 ha will be expanded (including 600 ha at a Government basic seed farm). In Zanzibar, 44 ha will be rehabilitated and 157 hectares will be expanded (including 40 ha at two Government basic seed farms). The project will support the design of the irrigation infrastructure, the construction of the infrastructure, and the strengthening of Irrigator Organizations (IO) to assure sustainable operation and maintenance of the irrigation works. In complement, professional managers will be employed to provide backstop support and training on the five Mainland schemes to facilitate the implementation of the BRN strategy of rice scheme management. The project will finance goods, works, consulting services, operational costs, training, and professional management staff.

**26. Sub-component 2.2: Promoting adoption of improved agronomic practices.** The project will speed the adoption of improved technologies needed to raise rice productivity and production by smallholder farmers distributed across 40 irrigation schemes on the Mainland (including the five where irrigation infrastructure is to be rehabilitated or expanded) and 24 irrigation schemes in Zanzibar (including the 8 to be rehabilitated or expanded). The project will support: (i) farmer-led, on-farm demonstrations of two methods of the SRI - one with manual weeding, and one with chemical weed control, (ii) training of extension staff, irrigation technicians and lead farmers, and (iii) a temporary, market-friendly subsidy scheme promoting the uptake of technologies on offer. The subsidy scheme includes an explicit graduation strategy modeled on the lessons obtained under the National Agricultural Input Voucher Scheme (NAIVS). The project will fund operational costs, goods and equipment and subsidy costs.

***Component 3: Innovative marketing strategies: US\$2.37 million for Tanzania Mainland***

27. The main objective of this component is to increase the quantity of rice marketed by strengthening access to markets and improving price incentives at the farm-gate. Activities under this component are targeted at only the Morogoro Region of Tanzania Mainland, because of the current absence of marketable surpluses, and hence limited marketing challenges, in Zanzibar. The project will improve market efficiency through two major activities: (i) provision of marketing infrastructure and (ii) strengthening of market linkages.

**28. Sub-Component 3.1: Provision of marketing infrastructure.** The project will construct warehouses for each of five smallholder schemes where irrigation infrastructure will be rehabilitated, and rehabilitate feeder roads in two of these schemes to facilitate improved access to output and input markets. The proposed warehouses, together with their respective capacities include: Njage (1,700Mt); Mvumi (1,300Mt); Msolwa (3,400Mt); Mbogo (1,000Mt) and Kigugu (1,000Mt). Feeder roads will be rehabilitated in two irrigation schemes: Njage (7km) and Mvumi (8km). The project will finance consultancy services, goods, works, training and related operational expenses for supervision.

**29. Sub-Component 3.2: Strengthening market linkages and market information.** This subcomponent aims to improve farm-gate prices by testing alternative marketing strategies linked with the warehouse operations. These are expected to help farmers take advantage of the scale economies obtainable through bulk marketing, and the seasonality of rice prices. The project will

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<sup>5</sup> One additional irrigation scheme in Morogoro, and two additional schemes in Zanzibar, will be supported for the expansion of basic seed production.

fund studies to help farmers better understand rice markets. It will support the testing of multiple marketing strategies such as contract delivery with nearby processors, the auctioning of grain to groups of traders, warehouse receipts, and the strengthening of market information systems. The project will fund consultancy services, operational costs and technical assistance.

***Component 4: Project Management and Coordination: US\$3.1million (US\$1.52 million for Tanzania Mainland and US\$1.6 million for Zanzibar)***

30. The objective of this component is to facilitate efficient implementation of project activities and tracking of results. Project implementation will use existing structures in Ministry of Agriculture Food Security and Cooperatives (MAFC) for Tanzania Mainland and MANR in Zanzibar. Each of these Ministries will assign a dedicated implementation team of key staff to ensure that there is adequate capacity to coordinate, implement and monitor the project effectively. Under this component, support will be provided for operational costs, project monitoring and evaluation and impact assessments.

**B. Project Financing**

31. The estimated total cost for the Project is US\$27.34 million. The Global Agriculture and Food Security Program (GAFSP) will provide a grant of US\$22.9 million. The project beneficiaries receiving input subsidies will provide US\$4.44 million as their contribution to the subsidized input costs. The detailed cost breakdown, by component is given in Table 1.

**Table 1. Project Component Costs (US\$ million)**

| <b>Project Components</b>   | <b>GAFSP</b> | <b>Beneficiaries</b> | <b>Total</b> | <b>% GAFSP Financing</b> |
|---|--------------|----------------------|--------------|--------------------------|
| <i>Component 1: Sustainable Seed Systems</i>  |              |                      |              |                          |
| 1.1 Introducing new varieties to smallholder farmers  | 1.12         | -                    | 1.12         | 100                      |
| 1.2 Promoting the sustainable production and delivery of preferred varieties                  | 1.58         | -                    | 1.58         | 100                      |
| 1.3 Strengthening seed quality control  | 0.68         | -                    | 0.68         | 100                      |
| <b>Component sub-total</b>  | <b>3.38</b>  | <b>-</b>             | <b>3.38</b>  | <b>100</b>               |
| <i>Component 2: Improving Crop Productivity through better Irrigation and Crop Management</i> |              |                      |              |                          |
| 2.1 Expansion and rehabilitation of irrigation infrastructure                                 | 6.38         | -                    | -            | 100                      |
| 2.2 Promoting adoption of improved agronomic practices  | 7.66         | 4.44                 | 12.10        | 63                       |
| <b>Component sub-total</b>  | <b>14.04</b> | <b>4.44</b>          | <b>18.48</b> |                          |
| <i>Component 3: Innovative Marketing Strategies</i>   |              |                      |              |                          |
| 3.1 Provision of marketing infrastructure   | 1.40         | -                    | -            | 100                      |
| 3.2 Strengthening market linkages and market information                                      | 0.96         | -                    | -            | 100                      |
| <b>Component sub-total</b>  | <b>2.37</b>  | <b>-</b>             | <b>2.37</b>  | <b>100</b>               |
| <i>Component 4: Project Management and Coordination</i>                                       | 3.1          | -                    | 3.1          | 100                      |
| <b>Total Cost</b>   | <b>22.9</b>  | <b>4.44</b>          | <b>27.34</b> | <b>84</b>                |



### C. Lessons Learned and Reflected in the Project Design

32. The project design reflects a number of lessons learned from other Bank operations in Tanzania. Key among these lessons are:

- i) *Plan irrigation investments carefully:* The impact assessment of irrigation investments under the Agricultural Sector Development Program (ASDP) cites the need for more careful planning of irrigation investments to avoid common problems of unfinished investments, lack of adequate water, especially for dry season irrigation, and the lack of sustained scheme maintenance. The project has carefully selected irrigation schemes for rehabilitation and extension with more assured water, and enhanced training to Irrigator Organizations (IOs) will offer better prospects of sustainability.
- ii) *Complement input provision with technical training:* The impact assessment for the Accelerated Food Security Project (AFSP) highlights the substantial variability of yields derived by farmers using similar sets of subsidized inputs. The provision of modern seed, fertilizer and related production technologies needs to be backed up by stronger technical advice and monitoring to assure the majority of farmers achieve the levels of productivity gain necessary to justify sustained use of these improved technologies. The project responds by offering farmers a more explicit package of crop management technologies designed to raise water use efficiency, and thus the productivity of improved seed and fertilizer. Farmers will also receive intensified extension training in rice crop management.
- iii) *Subsidy schemes should have clear exit strategies:* The AFSP supported input subsidy had a clearly defined exit strategy. However, this was not consistently implemented. Most participating farmers did not understand the logic of the strategy, and expected the subsidy program to continue as long as the project ran.<sup>6</sup> Under this project, regional authorities, district authorities and farmers will at the outset be trained on the purpose of the subsidy, its temporary nature, and how it will be ended. Exit from the program will also be closely monitored.
- iv) *Incentives to buy inputs are derived from improved marketing opportunities:* The AFSP has also shown that if farmers are to sustain commercial input purchases after graduating from the subsidy program, they need to have favorable markets for their commodity product. Higher product prices will justify continuing investments in new seed, fertilizer and related farming inputs. This knowledge has justified the addition of a marketing sub-component to the project design to increase farm-gate prices available to rice farmers in the Tanzania Mainland. The lessons derived from this effort will be shared with officials in Zanzibar, even though the additional rice production here is not expected to enter the market.
- v) *Need for timely impact monitoring:* The collection and reporting of high quality impact data has tended to be limited or late for several recent projects. As a result, questions of design or challenges of implementation are only well understood as the project heads toward completion. This project will resolve this by investing more in impact assessment and monitoring, including the involvement of independent assessors. The project will also

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<sup>6</sup> Similar difficulties were encountered with a previously implemented project called Participatory Agricultural Development and Empowerment Project

invest in establishing an improved management information system at the beginning of the operation.

#### **IV. IMPLEMENTATION**

##### **A. Institutional and Implementation Arrangements**

33. The project will be implemented through the MAFC in the Tanzania Mainland, and the MANR in Zanzibar. In the Mainland, project implementation will be led by a coordinator backed by a seed specialist with oversight responsibility for component 1, an irrigation specialist with oversight responsibility for sub-component 2.1, a crop management specialist with oversight responsibility for sub-component 2.1, and a marketing specialist with oversight for component 3. These will be assisted by a monitoring and evaluation specialist, safeguards specialist, procurement specialist and accountant. All team members will be seconded from within Government. However, day to day responsibility for implementing the various components of the project will remain with the relevant departments of the MAFC. These include the ASA, the KATRIN research station and TOSCI.

34. At the local level, project implementation will be guided by Local Government Authorities (LGA) working through the District Agricultural Offices. Each district will be responsible for procurement, contract administration, supervision of project activities, and reporting on progress for sites under its jurisdiction.

35. The Project is aligned to the Sector Wide Approach (SWAp) in the agriculture sector created under the auspices of the initial phase of the ASDP. Correspondingly, the Project will use a Technical Steering Committee (TSC) reporting to the ASDP Steering Committee for management and budgetary oversight.

36. Implementation in Zanzibar will be similarly led by a designated coordinator, backed by an identified team of seed, irrigation and crop management specialists all seconded to the project by the MANR. Ministry procurement, financial management, safeguards, and monitoring and evaluation systems will be used, with support from supplementary technical assistance as required. There will not be devolution of management responsibility to the district level.

37. Zanzibar will have its own project Steering Committee congruent with the planning systems for the agricultural sector as a whole. As is the case in the Mainland, the Steering Committee in Zanzibar will be tasked with providing the implementation team with technical guidance and approving annual budgets and work plans.

38. Overall project oversight will be managed by the Director for Policy and Planning (DPP) of the MAFC. This office will be responsible for assuring the coordinated delivery of financial and technical progress reports for both the Tanzania Mainland and Zanzibar. In complement, the Project will have a Joint Steering Committee (JSC) bringing together the Permanent Secretaries of MAFC and Prime Minister's Office- Regional Administration and Regional Government (PMO-RALG) in Mainland, and MANR and President's Office (Regional Administration) for Zanzibar. The JSC will meet once a year to review lessons derived from project implementation, and advise on any significant changes in budgets or implementation plans.

##### **B. Results Monitoring and Evaluation**

39. The project will establish a monitoring and evaluation system with two main components. The first component will be to monitor the level of achievement of expected results. This will start

with a baseline survey, and will be linked with, and followed by, a mid-term evaluation survey, and an end of project evaluation survey. These surveys will be backed by smaller annual surveys to track annual changes in key result indicators. The annual surveys will be implemented by Government staff. The baseline and impact evaluation surveys will be contracted to a third party. In complement, a simple management information systems (MIS) will be established in the MAFC and the MANR to help track implementation progress including disbursement, procurement, and the implementation of planned activities.

### C. Sustainability

40. Both the Tanzania Mainland and the Zanzibar Governments have placed high priority on expanding rice production through this project. In complement, the project design encompasses best practice needed to improve the probability that the investment results are sustainable. Key design features include: (i) granting farmers the latitude to choose technologies they prefer by conducting participatory technology demonstrations of multiple SRI management options; (ii) complementing investments in enhancing production and productivity with initiatives to help resolve second generation marketing challenges that often occur when farmers significantly increase their production; (iii) complementing investments in expanding and rehabilitating irrigation infrastructure with training of irrigator’s organizations in their operation and maintenance to ensure proper use; (iv) incentivizing the private sector to engage in commercial production and sale of rice seed; and (v) implementation of an explicit phase out of the input subsidy while encouraging farmers to purchase these inputs on the commercial market.

## V. KEY RISKS AND MITIGATION MEASURES

### A. Risk Ratings Summary Table

| <b>Risk Category</b>                     | <b>Rating</b> |
|--|---------------|
| <b>Stakeholder Risk</b>                  | Moderate      |
| <b>Implementing Agency Risk</b>          |               |
| - Capacity                               | High          |
| - Governance                             | Substantial   |
| <b>Project Risk</b>                      |               |
| - Design                                 | Substantial   |
| - Social and Environmental               | Moderate      |
| - Program and Donor                      | Low           |
| - Delivery Monitoring and Sustainability | Substantial   |
| <b>Overall Implementation Risk</b>       | Substantial   |

### B. Overall Risk Rating Explanation

41. The overall risk during implementation is assessed to be substantial. This rating is mainly due to weaknesses in implementation capacity – especially at the local level. On the Tanzania Mainland, LGA capacities needed to assure the timely implementation of irrigation works are limited. Extension programs have historically been constrained by lack of staff and operational resources, and technical expertise is limited. In Zanzibar, the Ministerial authorities have limited experience with the management of this sort of project. To mitigate these risks, designated staff of both the MAFC and the MANR will be responsible to closely monitor the implementation of specific project components or sub-components. Both Ministries will establish a management

information system designed to track funds flow, procurement and delivery schedules. Zanzibar will benefit from supplementary technical assistance in key areas of weakness.

## VI. APPRAISAL SUMMARY

### A. Economic and Financial Analysis

42. An economic and financial analysis of the Project was undertaken in order to assess and answer three main questions related to the proposed project design and expected outcome:

- *What is the Project's expected development impact?* A standard cost-benefit analysis of irrigated rice schemes with varying technology improvements is used to assess this impact.
- *Is public funding needed and what levels of financing are appropriate?* This part of the analysis identifies the specific market failures preventing desirable levels of private investments in agriculture, how these market failures would be addressed by the project, and what level of public interventions are needed.
- *What is the World Bank's value added in the Project?* This part of the analysis examines the value added derived from Bank experiences and the commitment of World Bank's staff time and implementation support for this project.

43. *Development impact:* The benefits expected from the Project include increased production, improved productivity, and improved farm-gate prices. These gains are derived from speeding the adoption of improved seed varieties, improved crop management practices generally and SRI in particular, and new marketing arrangements linking warehouses with seasonal, contract or commodity exchange trading arrangements. All of the additional production in Zanzibar and an estimated 20 percent of the additional production in the Morogoro Region will be consumed within the producing communities, thus directly contributing to household food security. The remaining additional production in Morogoro will contribute to improving rice supplies for a wider range of consumers serviced by regional markets.

44. The Project is estimated to offer a direct Net Present Value (NPV) of US\$12.1 million at a discount rate of 12 percent, and an Economic Internal Rate of Return (EIRR) of 35 percent. This accounts for the full costs of the irrigation infrastructure as well as the investments in improving crop and market management. These estimates are based on a conservative estimate of rice prices in line with the relatively low cost of rice in international markets in late 2013. Both measures are sensitive to any further decline in these prices, but remain positive even if the regional import duty of 35 percent is eliminated. Further, these estimates do not account for a range of indirect benefits including the longer term gains associated with better targeting of rice breeding programs and strengthening of public-private partnerships underlying rice seed systems, nor do these estimates account for the fact that lessons derived from the more concentrated investment in the Morogoro Region are expected to be applied to other parts of the country in the future.

45. *Justification for public financing:* This Project focuses on correcting a major market failure faced by smallholder farmers as well as spill-over effects of current rice irrigation schemes in the project area. First, input markets have not developed well enough to assure farmers access to the latest new technologies, and to improved rice seed in particular. Few farmers have access to new varieties, though experience suggests that when such access is gained, adoption is rapid. Similarly, farmers rely on public support to gain information about new crop management technologies. The project also aims to correct market failures underlying the relatively narrow rice market, characterized by many low volume transactions, by promoting the testing of bulk sales, as well as

grain storage and sale when prices are seasonally favorable. Both efforts at improving market coordination should provide long term gains.

46. The level of public sector funds is congruent with an intention to shift the orientation of private investment behavior by farmers, input suppliers and grain traders. The input subsidy is temporary, targeting a graduation strategy toward fully commercial input purchases after three years of assistance. The support for the seed system encourages private seed companies to reevaluate this market. The project also tests multiple grain marketing strategies with the expectation that the more profitable strategies will be sustained as commercial undertakings by the project supported villages.

47. *World Bank's value added:* The World Bank's value added under this Project will be in three main areas: (a) promoting knowledge sharing; (b) encouraging a more results oriented investment program, and (c) optimizing the use of funds. The Bank has a growing experience in supporting input subsidy programs and related efforts to speed the adoption of improved cropping technologies. This knowledge has already been brought to bear in the project design. This support will be further expanded during implementation support missions. The key challenges are to strengthen understanding of the ways that public funding can share risks in testing new technologies and encouraging their adoption, as opposed to operating as an income transfer to reduce the cost of agricultural inputs. This distinction lies at the heart of the concept of graduation from the input subsidy.

48. The Bank's commitment to the regular measurement of progress in relation to a well-defined results framework reinforces the results orientation of this investment. This is backed by the regular review of results achieved during each implementation support mission, and the evaluation of factors that may speed or undermine the achievement of the expected results. This coincides with the Government's stronger commitment to pursue accountability for targeted results under the national Big Results Now initiative.

49. The Bank's support assures a continuing commitment to build Government management systems for its development investments. These include basic fiduciary management under laid by the Bank's backstop training and advisory support for financial management and procurement, as well as the strengthening of monitoring and evaluation systems essential to back the Government's commitment to manage for results.

## **B. Technical**

50. The technical design of the Project is mainly underpinned by the Government's GAFSP proposal- which was itself developed based on technical studies and reviews by international and local experts. The design takes account of experiences gained in related projects in Tanzania and neighboring countries. The conceptual framework links the efforts to promote the adoption of improved technologies with improvements in incentives for investments in technology by improving resource use efficiency and farm-gate prices. Each of these initiatives pursues strategies to enhance the chances of achieving commercial sustainability. To help deal with the inherent difficulty in developing sustainable seed markets for rice, the project design helps characterize the demand for alternative varieties, and tests linkages between public investment in breeder and foundation seed production and private investment in commercial seed sale. The growth of input supply chains is encouraged by supporting a market smart input subsidy encouraging farmers to pay an increasing proportion for their input needs. Linkages with input and grain traders are strengthened through the encouragement of bulk purchases and sale tied with community

warehouse operations. In each project component, emphasis is placed on testing the conditions of market supply and demand, and drawing lessons to guide future investments.

### **C. Financial Management**

51. The Financial management assessment carried out at two ministries -MAFC, MANR; two LGAs -Mvomero and Kilombero; and agriculture agencies - ASA, KATRIN and TOSCI that will implement the project revealed that there are adequate financial management arrangements to manage project financial operations. All implementing entities have previous experience in implementing World Bank (WB) financed projects. The conclusion of the assessment is that the overall Financial Management (FM) arrangements at these project implementing entities satisfies the Bank's minimum requirements under OP/BP10.02, and are therefore adequate to provide, with reasonable assurance, accurate and timely information on the status of the project. The overall FM residual risk is moderate.

### **D. Procurement**

52. All Procurement will be carried out in accordance with the World Bank Guidelines: Procurement of Goods, Works, and Non Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers, dated January 2011 and revised in July 2014; Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers, dated January 2011 and revised in July 2014; and Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and revised in January 2011, and provisions stipulated in the Financing Agreement.

53. Procurements under National Competitive Bidding for MAFC will be governed by the new procurement law - the Public Procurement Act, Act No. 7 of 2011 that came into effect on December 20, 2013. The Act has been reviewed by the World Bank and found to be satisfactory and consistent with Bank Procurement Guidelines, except for the provisions of Clause 54, which permits application of national preference in bid evaluation under National Competitive Bidding (NCB). In line with Bank procedures, there would be no preference accorded to domestic suppliers and contractors under National Competitive Bidding for goods and works. Furthermore, in accordance with paragraph 1.16(e) of the Bank's Procurement Guidelines, each bidding document and contract financed out of the Grant proceeds shall provide that: (a) the bidders, suppliers, contractors and subcontractors shall permit the Bank, at its request, to inspect their accounts and records relating to the bid submission and performance of the contract, and to have said accounts and records audited by auditors appointed by the Bank; and (b) the deliberate and material violation by the bidder, supplier, contractor or subcontractor of such provision may amount to an obstructive practice as defined in paragraph 1.16(a)(v) of the Procurement Guidelines.

54. Public procurement in Zanzibar is governed by the Public Procurement and Disposal of Public Assets Act No. 9 of 2005 which was enacted following the recommendations of the 2003 Country Procurement Assessment Report (CPAR). The act was reviewed during the 2006 Public Expenditure and Financial Accountability Review and concluded that the law does not conform to the United Nations Commission on International Trade Law (UNICTRAL) model. The deficiencies noted are still the same as the act has not been revised to date. The deficiencies are; there are no corresponding guidelines and standard bidding documents; the law does not cover the procurement of non-consulting services; the law lacks a section on international obligation; it does not address the independence of procurement function to avoid a perception of conflict of interest;

the complaint mechanism is not in line with international goods practice – procurement complaints are handled through arbitration and trade tribunals and the regulatory authority has no autonomy because of setting - the regulatory functions are under the Department of Stock Verification and Procurement Services that is a department of the Ministry of Finance and Economic Affairs. Based on the deficiencies noted procurements under the project will follow IDA procurement guidelines and use standard bidding documents issued by the Bank.

55. The respective Procurement Management Units (PMUs) in both entities MAFC and MANR will be responsible to carry out the procurement function. An assessment of the capacity of MAFC and MANR to implement all procurement actions for the project was undertaken in April 2014. This included a review of the organizational structure, functions, staff skills and experiences, and adequacy for implementation of the project. The assessment revealed that MAFC has experience with procurement and management of contracts under Bank financed projects. During the assessment, the MAFC was implementing four Bank financed projects. The review revealed a number of issues among which are: inadequate number of procurement staff given the number of ongoing projects and Government funded procurements, inefficiencies in processing procurement activities in terms of preparing terms of reference, specifications, bidding documents, request for proposals and bids/proposals evaluations, inadequate working environment including limited space for staff and for records keeping/filing, and lack of training and updating of skills on World Bank procurement procedures and processes for the procurement staff and weak contract management.

56. In Zanzibar, the MANR has experience implementing Bank financed projects and has a Procurement Specialist with experience in World Bank procurement procedures. The Procurement Specialist will be assisted by three procurement officers with no experience in World Bank procurement procedures and processes and inadequate knowledge in contract management. In addition, training on World Bank procurement procedures and processes will be conducted for both MANR and MAFC procurement specialists in order to update their knowledge and skills and ultimately enhance capacity in the two ministries. Specific key findings for the MANR are as follows: Zanzibar procurement system does not conform to the International Commercial Arbitration and Conciliation (UNICTRAL) model law; weak procurement records filing and management system; there are no bidding documents acceptable to the Bank; and the complaints review system is not in line with international practice. The overall project risk for procurement was assessed Substantial and the residual risk is Moderate.

#### **E. Social (including Safeguards)**

57. Approximately one-half of the beneficiary farmers are women, including those sharing responsibilities for rice production with their husbands. The Project encompasses special efforts to assure that women farmers participate fully in the demonstration trials for improved crop management practices, and in the receipt of the temporary input subsidies. In complement, Project monitoring systems will evaluate the participation of women farmers in the targeted irrigation schemes, and assure that women do not lose access to land when productivity and incomes rise.

58. The Project is expected to require limited and localized resettlement primarily as a result of the limited expansion of several irrigation schemes (an estimated 1,907 ha in total). Preliminary investigations underlying the drafting of a Resettlement Policy Framework (RPF) reveal that most of these households will see a reconfiguration of their holdings needed to complete the

establishment of formal irrigation infrastructure. They may lose small parts of their fields for irrigation canals in return for access to reliable water. Some households in Zanzibar may lose their lease rights to Government land historically designated for seed farms. As the project was being prepared, however, the detailed designs of the schemes proposed for rehabilitation and expansion had not been completed. The exact areas and identity of households affected remains unknown. Correspondingly, Resettlement Action Plans (RAPs) will be drafted for each scheme as part of the process of completing the design plans. These will include confirmation of the affected households, compensation and grievance procedures.

#### **F. Environment (including Safeguards)**

59. The Project triggers three environmental safeguards: Environmental Assessment (OP 4.01), Pest Management (OP 4.09) and Natural Habitats (OP 4.04). The level of environmental risk is estimated to be low to moderate, stemming from the small-scale nature of most investments including the limited expansion of irrigated area. In general, the use of insecticides on smallholder irrigation schemes is rare, and the project will not encourage insecticide application. A portion of farmers will, however, be trained to test and consider the application of herbicides. This is viewed necessary for two reasons. First, weed pressures are expected to rise with the application of reduced water technologies under SRI. Second, the cost of farm labor is rising. Farmers in all of the schemes receiving support for the testing of herbicides will be trained in the safe handling and disposal of pesticides generally, and herbicides in particular.

60. While the Project supports the expansion of irrigation systems, it also explicitly supports improvements in water use efficiency. The application of the SRI technology is expected to reduce the demand for water in any given season by up to 30 percent. This allows the expansion of irrigated area with the use of less water. Water savings are also expected from the rehabilitation of existing infrastructure including the improvement of water intakes and the lining of canals.

61. Broader concerns have been raised about the growing competition for scarce water resources in many rural ecosystems in Tanzania, and most particularly in the Kilombero watershed. The latter encompasses a national Ramsar site of national and global ecological importance. Two of the schemes scheduled for direct irrigation support are in the Kilombero watershed. One (Njage) is targeted for rehabilitation, which should reduce water demand while improving the efficiency of flows. The second (Msolwa) is proposed for a 40 hectare expansion. This will effectively convert informal irrigated area now generally committed to sugarcane production, to formal irrigation with rice. As such, the establishment of formal irrigation structures is not expected to use appreciably more water than is currently applied in this system. Insofar as SRI water saving techniques are applied by farmers in the larger scheme, the Project may contribute to lower levels of water consumption. This will be monitored during project implementation and confirmed in the midterm and end of term evaluation studies.

62. The project Environmental and Social Management Framework (ESMF) highlights the need for preparing environmental impact assessments prior to the development of any new infrastructure. This lays out a screening procedure and defines community training sought to reduce levels of environmental degradation associated with rising population pressures and more intensified farming practices. An Integrated Pest Management Plan outlines the risks of greater pesticide use and uncontrolled use of fertilizer, and proposed training and monitoring activities for assuring safe agro-chemical usage.



## **G. World Bank Grievance Redress**

63. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## Annex 1: Results Framework and Monitoring

### TANZANIA: Expanding Rice Production Project (P144497)

| Project Development Objective: To increase the productivity and production of rice among smallholders in targeted areas of Morogoro and Zanzibar |                                     |        |            |                          |               |               |               |               |           |                          |                                    |
|--|-------------------------------------|--------|------------|--------------------------|---------------|---------------|---------------|---------------|-----------|--------------------------|------------------------------------|
| PDO Level Results Indicators   | Core                                | UOM    | Baseline   | Cumulative Target Values |               |               |               |               | Frequency | Data Source/ Methodology | Responsibility for Data Collection |
|  |                                     |        |            | 2015                     | 2016          | 2017          | 2018          | 2019          |           |                          |                                    |
| Average yields of targeted farmers growing paddy<br>i) Mainland<br>ii) Zanzibar  | <input type="checkbox"/>            | t/ha   | 1.8<br>1.8 | 2.9<br>4.0               | 3.3<br>4.5    | 3.3<br>4.5    | 3.5<br>5.5    | 3.5<br>5.5    | Seasonal  | Project reports          | MAFC/MANR                          |
| Additional quantity of rice produced in targeted areas<br>i) Mainland<br>ii) Zanzibar  | <input type="checkbox"/>            | Mt     | 0          | 9500<br>1240             | 23500<br>4040 | 37500<br>6840 | 47000<br>8250 | 56500<br>9660 | Seasonal  | Project surveys          | MAFC/MANR                          |
| Number of Project beneficiaries  | <input checked="" type="checkbox"/> | Number | 0          | 6400                     | 29400         | 31000         | 32000         | 33069         | Seasonal  | Project Reports          | MAFC/MANR                          |
| Percent of whom are female   | <input checked="" type="checkbox"/> | Number | 0          | 25                       | 30            | 40            | 50            | 50            | Seasonal  | Project Reports          | MAFC/MANR                          |
| Intermediate Results and Indicators  |                                     |        |            |                          |               |               |               |               |           |                          |                                    |
| Intermediate Results Indicators  | Core                                | UOM    | Baseline   | Cumulative Target Values |               |               |               |               | Frequency | Data Source/ Methodology | Responsibility for Data Collection |
|  |                                     |        |            | 2015                     | 2016          | 2017          | 2018          | 2019          |           |                          |                                    |
| Number of farmers adopting improved seed varieties promoted by the project<br>i) Mainland<br>ii) Zanzibar  | <input checked="" type="checkbox"/> | Number | 0          | 5000<br>1600             | 15000<br>4500 | 21000<br>6000 | 23600<br>8400 | 23600<br>8400 | Annual    | Project reports          | MAFC/MANR                          |
| Area provided with new irrigation and drainage services<br>i) Mainland<br>ii) Zanzibar   | <input checked="" type="checkbox"/> | ha     | 0<br>0     | 0<br>0                   | 875<br>78.5   | 1750<br>157   | 1750<br>157   | 1750<br>157   | Seasonal  | Project reports          | MAFC/MANR                          |
| Area provided with improved irrigation and drainage services<br>i) Mainland<br>ii) Zanzibar  | <input checked="" type="checkbox"/> | ha     | 0<br>0     | 0<br>0                   | 125<br>22     | 250<br>44     | 250<br>44     | 250<br>44     | Seasonal  | Project reports          | MAFC/MANR                          |

|  |                                     |        |        |        |              |              |              |              |          |                 |           |
|--|-------------------------------------|--------|--------|--------|--------------|--------------|--------------|--------------|----------|-----------------|-----------|
| Number of water users provided with new irrigation and drainage services<br>i) Mainland<br>ii) Zanzibar      | <input checked="" type="checkbox"/> | Number | 0<br>0 | 0<br>0 | 1150<br>585  | 2300<br>1170 | 2300<br>1170 | 2300<br>1170 | Seasonal | Project reports | MAFC/MANR |
| Number of water users provided with improved irrigation and drainage services<br>i) Mainland<br>ii) Zanzibar | <input checked="" type="checkbox"/> | Number | 0<br>0 | 0<br>0 | 250<br>217   | 500<br>433   | 500<br>433   | 500<br>433   | Seasonal | Project reports | MAFC/MANR |
| Number of operational water user associations created and/or strengthened<br>i) Mainland<br>ii) Zanzibar     | <input checked="" type="checkbox"/> | Number | 0<br>0 | 0<br>0 | 4<br>5       | 5<br>8       | 5<br>8       | 5<br>8       | Seasonal | Project reports | MAFC/MANR |
| Number of farmers adopting SRI management techniques promoted by the project<br>i) Mainland<br>ii) Zanzibar  | <input checked="" type="checkbox"/> | Number | 0<br>0 | 0<br>0 | 3300<br>2770 | 3300<br>2770 | 3300<br>1385 | 3300<br>1385 | Seasonal | Project reports | MAFC/MANR |
| Additional quantity of rice marketed in targeted areas (Mainland)  | <input type="checkbox"/>            | Mt     | 0      | 7600   | 18800        | 30000        | 37600        | 45200        | Annual   | Project surveys | MAFC      |
| Ratio of farm-gate to wholesale prices   | <input type="checkbox"/>            | Number | .4     | .4     | .45          | .5           | .6           | .6           | Seasonal | Project reports | MAFC/MANR |
| Annual M&E reports completed   | <input type="checkbox"/>            |        | -      | Y      | Y            | Y            | Y            | Y            | Annual   | Project reports | MAFC/MANR |

## **Annex 2: Detailed Project Description**

### **TANZANIA: Expanding Rice Production Project**

1. This project aims to increase the productivity and production of rice in targeted areas of Morogoro and Zanzibar. Activities will be supported through four components: (i) Sustainable seed systems; (ii) Improving crop productivity through better irrigation and crop management; (iii) Innovative marketing strategies; and (iv) Project management and coordination.

#### **Project Components and Activities**

***Component 1: Sustainable Seed Systems: US\$3.38 million (US\$2.27 million for Tanzania Mainland and US\$1.11 million for Zanzibar)***

2. This component will support creation of sustainable multiplication and distribution capacity for high quality rice seed contributing to rising adoption rates for new seed varieties. This will be achieved through three subcomponents (i) introducing new rice varieties to smallholder farmers; (ii) promoting the sustainable production and delivery of preferred varieties; and (iii) strengthening seed quality control.

***Subcomponent 1.1: Introducing new rice varieties to smallholder farmers: US\$1.12 million (US\$0.71 million for Tanzania Mainland and US\$0.41 million for Zanzibar)***

3. Tanzania maintains a release list encompassing thirteen new rice varieties including: TXD 85, TXD 88, TXD 306 (SARO 5), Kalalu, Mwangaza, Supa, Komboka, Tai, NERICA 1, NERICA 2, NERICA 4, NERICA 7, and WAB450-12-2BLB-DV4. However, most farmers continue to produce traditional varieties. Only two of these releases (Supa and SARO 5) have been widely introduced. This project will broaden awareness of these new rice varieties by working with farm communities to implement on-farm demonstration trials at 40 irrigation schemes on the Mainland and 24 irrigation schemes in Zanzibar. Complementary demonstrations will also be run in adjoining lowland and upland systems without formal irrigation.

4. The on-farm demonstrations will be jointly organized by research and extension staff, and the participating farmers. During multiple field days organized by research and extension staff, farmers will be asked to evaluate each variety for growth traits, ease of harvesting, yield, processing ease, and taste. Rice processors may also be invited to participate in the field days. The results of the varietal preference assessments will be formally summarized and reported each year. This information will be used to guide future rice breeding programs. Farmer preferences will also be used to guide seed multiplication and marketing efforts.

5. Activities covered under this subcomponent include: selection of location and land for demonstration trials, provision of inputs for demonstration trials, supervision of trials, and the implementation of multiple field days wherein data will be collected on farmer and processor preferences for alternative varieties. The summary report of the preference analysis will be discussed each year with national stakeholders in the seed industry.

**Subcomponent 1.2: Promoting the sustainable production and delivery of preferred varieties: US\$1.58 million (US\$1.125 million for Tanzania Mainland and US\$0.458 million for Zanzibar)**

6. This sub-component will strengthen seed multiplication and distribution systems for those rice varieties preferred by farmers and the market. The project will first support the multiplication of high quality pre-basic seed by national breeders at key research institutes. Support will then be provided to help national seed multiplication agencies (ASA and the Seed Unit of the MANR), to bulk this into basic seed. Initially, ASA and the MANR will be assisted with the production of adequate quantities of certified seed to assure there are adequate supplies for the demonstration trials and on-farm promotion of improved crop management practices. The production of seed for the input subsidies will be contracted to commercial seed companies in an effort to promote the development of commercial seed markets.

7. The capacities of ASA and the MANR Seed unit will be enhanced by the expansion of irrigation infrastructure at one ASA seed farm at Kilangali<sup>7</sup> on the Mainland, and two smaller Government seed farms at Kibondemzungu, and Ole in Zanzibar. The primary responsibility of these seed farms will be to produce basic or foundation seed. However, they may also produce limited quantities of commercial seed insofar as there remains a gap in the coverage by the private seed sector.

8. The project will support two initiatives needed to strengthen the commercial seed sector. First, in view of the skepticism about the quality of some of the rice seed provided by private companies, the project will support quality testing of rice seed available in the market. This includes testing of genetic purity and germination rates under the auspices of subcomponent 1.3 below. Second, the project will encourage seed companies to build sustained wholesale to retail trade linkages into the targeted communities. Seed (and fertilizer) delivery will be encouraged through commercial channels to supply the subsidy program with the expectation that these supply chains will persist once the subsidy is ended. The sustainability of these seed supply chains will be monitored.

9. The project will encourage the broader dissemination of preferred varieties beyond the Morogoro Region of Tanzania Mainland by distributing basic seed of preferred varieties to community seed multiplication groups in other parts of the country. This strategy will particularly target areas where the private sector is not selling commercial rice seed.

**Subcomponent 1.3: Strengthening seed quality control: US\$0.68 million (US\$0.43 million for Tanzania Mainland and US\$0.136 million for Zanzibar)**

10. This subcomponent will (i) verify the genetic purity of the pre-basic and basic seed and (ii) certify the quality of the commercial seed produced by ASA, the MANR Seed Unit, and the private sector. All producers of pre-basic and basic seed will submit samples for testing the genetic purity of their seed stocks for each of the 13 varieties available for production as per available rules and

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<sup>7</sup> At appraisal, there was a land dispute between the Kilangali Seed Farm and the communities over a section of the Farm. The dispute was the subject of two court cases (one filed by ASA in the District Court and another filed by the communities in the High Court). There are indications that both litigants are committed to pursuing an out of court settlement. Until such settlement (well documented and signed by all aggrieved parties) is reached that is satisfactory to the Bank or a clear verdict is issued by a competent court, investment in the Farm would not proceed.

regulations. The assessment of genetic purity will employ marker assisted technologies at Mikocheni Research Institute<sup>8</sup>. The Project will fund efforts to purify seed stocks as necessary.

11. The project will support TOSCI efforts to certify the quality of commercial seed grown by ASA, the Zanzibar Seed Unit of MANR, and the private sector. This includes the registration and inspection of seed growers, as well as the inspection of seed flowing in the market. The project will upgrade the seed laboratory at Kizimbani to support the development of quality testing in Zanzibar. The TOSCI and Kizimbani laboratories are expected to test for germination, physical purity, and disease incidence. Training will be provided to seed inspectors and seed producers in quality control.

***Component 2: Improving crop productivity through better irrigation and crop management: US\$ 14.04 million (US\$10.34 million for Tanzania Mainland and US\$3.7 million for Zanzibar)***

12. This component supports the improvement of paddy productivity through the expansion and rehabilitation of irrigation infrastructure, and promotion of the adoption of improved crop management technologies. The component will also support the improved management of rice production systems in line with the proposed Big Results Now initiative of Tanzania Mainland.

**Subcomponent 2.1: Expansion and rehabilitation of irrigation infrastructure: US\$6.38 million (US\$4.67 million for Tanzania Mainland and US\$1.72 million for Zanzibar)**

13. This subcomponent will support the rehabilitation and/or upgrading of 5 targeted smallholder irrigation schemes in the Mainland (Njage, Msolwa Ujamaa, Mvumi, Kigugu and Mbogo) and 8 smallholder irrigation schemes on Zanzibar (Mtwango, Koani, Banda Maji, Mchangani, Machigini, Dobi-1, Dobi-2 and Kwalempona). The project is expected to contribute to rehabilitation of 294 ha (250 ha in Mainland and 44 ha in Zanzibar) in smallholder irrigation schemes and construction of another 1907 ha (1750 ha in Mainland and 157 ha in Zanzibar-including one Government seed farm in Mainland and two Government seed farms in Zanzibar). This includes the repairing and lining of canals, improvement of drainage systems, and the establishment of additional boreholes for several small irrigation schemes in Zanzibar. These improvements are expected to improve the productivity of 2,800 households on the Mainland and 1,603 households in Zanzibar.

14. The beneficiary farmers are expected to contribute approximately 20 percent of the costs of rehabilitation and extension of these irrigation schemes- mainly in the form of labor for leveling their plots. Irrigator Organizations (known as Farmer Associations in Zanzibar) will be given supplementary training on procedures for efficient water management, as well as the sustained management of the irrigation infrastructure. This may include leadership training and team building skills, as well as technical training. The Irrigator Organizations will be assisted to establish cost recovery systems for the simple maintenance of irrigation infrastructure. The implementation of this training will be led by LGAs in Mainland and the Irrigation Department at MANR in Zanzibar, backed by relevant national training institutes.

15. On the Tanzania Mainland, two professional managers will be hired for a period of two years to support the strengthening of scheme management systems through on-going in-service training and support. These managers are expected to strengthen procedures for assuring the sustainability of these investments as well as the more efficient use of water. In complement, they will improve the integration of each scheme into national supply chains by facilitating the bulk purchase of

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<sup>8</sup> This may be crosschecked to verify the results with other laboratories in Africa.

agricultural inputs, and coordinated sale of rice products (see component 3). Emerging experience with the BRN model reveals a capacity gap in terms of availability of professional scheme managers in the country and in case this gap cannot be closed in a timely manner, alternative approaches that seek to build the capacity of IOs directly to manage own schemes will be adopted.

**Sub-component 2.2: Promoting adoption of improved agronomic practices: US\$7.66 million (US\$5.68 million for Tanzania Mainland and US\$1.98 million for Zanzibar)**

16. The objective of this subcomponent is to promote the adoption of improved technologies that will enable smallholder farmers to raise rice productivity in irrigated systems of Tanzania. A short term input subsidy program will encourage broader experimentation with, and sustained adoption of, modern seed varieties and chemical fertilizer. In complement, the project will support farmer-led, on farm demonstrations to test two technology packages for SRI.

***Mainland***

17. The project targets the adoption of new paddy production technologies by 23,600 farm households distributed across 40 irrigation schemes. These include the five smallholder irrigation schemes targeted for infrastructure improvement, and 35 schemes which are not receiving infrastructure assistance under this project. In conformity with the BRN model, the five schemes receiving infrastructure assistance will also receive more concentrated support through the hiring of two professional scheme managers. One manager will cover Mvumi, Kigugu and Mbogo irrigation schemes, and one will cover Msolwa and Njage irrigation schemes. The scheme managers will be responsible for organizing bulk purchase of inputs; identifying and engaging mechanization services; promoting greater efficiency in water management, promoting improved sustainability of irrigation infrastructure, linking IOs to financial institutions; establishing contacts with processors, branding companies and buyers; and managing warehouse operations.

18. **(i) Training:** The project will train extension staff, irrigation technicians and lead farmers on all technologies and practices being promoted including both the seed and chemical fertilizer technologies provided through the input subsidy, and the SRI technologies to be promoted through farmer-led, on-farm demonstrations. This includes training on how to carry out demonstration trials and how to evaluate the results. The extension staff, with advisory support from research, are expected to work with farmers to record and formally summarize the results of a random cross-section of approximately 10 percent of the plots receiving improved seed and chemical fertilizer, and all of the demonstrations with SRI. The training will take place in the irrigation schemes or at Mkindo Farmer Field School in Morogoro. Extension officers will be trained in the first year of the project after which they will train farmers on demonstration plots, and supervise the process throughout the season.

19. **(ii) Provision of Input Subsidy:** Approximately 21,074 farmers (all but those participating in the SRI demonstration trials program) will receive an input subsidy package consisting of improved rice seed and fertilizer for five years. The project subsidy level would decrease over time while the farmer's contribution would increase over the same period. The farmer's payment would be split into two parts: one upfront and another one after harvest.

20. **The Input Package:** The package will consist of 15 kilograms of improved paddy seed varieties, one (50 kg) bag of DAP as basal fertilizer, and one (50 kg) bag of Urea as top dressing, one push weeder and one row marker. These inputs are viewed adequate for one acre of paddy. The push weeder and row marker will be provided only once.

21. *Modality for Accessing Inputs Subsidy:* The subsidized inputs will be provided in a market friendly manner by commercial agro-dealers. Scheme managers will work with seed and fertilizer companies and with farmer representatives to select agro-dealers who will operate as sales agents for the companies for the supply of inputs. Each agro-dealer must be formally registered as an agent of one or more seed companies as an authorized seed seller. The fertilizer suppliers must be similarly formally registered with at least one fertilizer company as an authorized agent.

22. Scheme managers, in collaboration with extension officers, will work with farmers' associations/organizations to confirm the quantities of inputs sought (for both subsidized and non-subsidized commercial sale) and to assure payment for these inputs both the upfront and after harvest tranches from the farmers. The scheme managers will confirm that each identified farmer has received his or her designated inputs (through a properly maintained register), and the supplier must show proof of having supplied the inputs to the farm community. Once both sets of proof are available, the project will then complete the payment to the supplier for the agreed subsidy amount.

23. In order to assure stakeholders understand the rules of the subsidy program, and the program operates on a timely basis, beneficiary surveys will be conducted at each irrigation scheme. These will report on the level of understanding of subsidy rules, as well as the timeliness and accuracy of input delivery. A quantitative summary of the results of the surveys will be provided in each annual report for the project.

24. *Graduation Strategy:* The seed and fertilizer subsidy will be provided to individual farmers for the five years duration of the project but the subsidy amount will decrease systematically. The subsidy for the weeder and row marker will be provided only once. After the five years of support, farmers are expected to have gained enough income to purchase seed (if needed) and fertilizer at full market price. Following is a proposed graduation strategy.

**Table 1: Graduation strategy for the input subsidy**

|                                       | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------------------------|--------|--------|--------|--------|--------|
| Farmer's upfront contribution %       | 20     | 30     | 35     | 40     | 50     |
| Government/Project contribution %     | 50     | 40     | 30     | 20     | 20     |
| Farmer's contribution after harvest % | 30     | 30     | 35     | 40     | 30     |
| Total farmer's contribution %         | 50     | 60     | 70     | 80     | 80     |

25. (iii) *Demonstration of SRI Technologies:* Approximately 80 demonstration plots will be implemented each year – or approximately two for each irrigation scheme. The project will give farmers an opportunity to test two technology packages highlighting the advantages of the SRI strategy: (a) **SRI Manual**<sup>9</sup>- this package will include improved seed, inorganic fertilizer application, spacing, seed preparation and early planting, leveling and bunding, intermittent water application and mechanical weeding using rotary/push weeders; and (b) **SRI Herbicides**- this is similar to the SRI manual package, however, weed control will be with the use of herbicide. These packages may evolve during the course of the project as greater experience is gained about their performance and acceptability to farmers.

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<sup>9</sup> Original SRI technology package did not include inorganic fertilizer nor herbicides. These packages of SRI have been adapted to the Tanzania environment. Adaptation may continue during the course of the project.



26. The size of each SRI demonstration trial will depend on the configuration of the irrigation scheme<sup>10</sup>. Each demonstration will include both treatment (SRI Manual or SRI Herbicide) and control (normal farmer practice) plots. Farmers volunteering to host the demonstration trials will receive a 100 percent subsidy for the seed and agro-chemical package and a 50 percent subsidy on farm implements. The subsidy will be provided for one season in a year, and will be rotated to new sets of volunteering households each year. Extension staff, with advisory support from research staff, are expected to work with farmers to collect data on the trial inputs and outputs and jointly analyze the results. These will be summarized in each of the project's annual reports.

### **Zanzibar**

27. The project targets the adoption of new paddy production technologies by 8,397 farm households distributed across 24 irrigation schemes in Unguja and Pemba. These include the eight smallholder irrigation schemes targeted for infrastructure improvement, and 16 schemes which are not receiving infrastructure assistance under this project.

28. *(i) Training:* The project will train extension staff, irrigation technicians and lead farmers on all technologies and practices being promoted (including SRI) to facilitate implementation of farmer-led, on-farm demonstrations for technologies testing. This includes training on how to carry out a demonstration trial, and how to evaluate the result. The training will take place in the irrigation schemes being assisted, and at Kizimbani Agriculture Research Institution. Extension officers will be trained at the beginning of the project after which they will train farmers on demonstration plots, and supervise the implementation of project funded activities.

29. *(ii) Provision of Input subsidy:* The input subsidy package<sup>11</sup> will consist of 3 kilograms of improved paddy seed, 10 kg of TSP as basal fertilizer, and 10 kg of urea<sup>12</sup> as top dressing, one push weeder, and one row marker. These inputs are viewed adequate for one-tenth of a hectare of paddy – a common minimum size paddy plot in Zanzibar. The push weeder and row marker will be provided only once.

30. *Modality for Accessing Inputs Subsidy:* In view of the fact that there are few agro-dealers in Zanzibar, the subsidy may initially be provided through agricultural service centers organized by the Government. By the second year of the program, however, efforts will be made to encourage the provision of the subsidized inputs by commercial agro-dealers. The project staff will work with seed and fertilizer companies, and with farmer representatives, to select agro-dealers who will operate as sales agents for the companies for the supply of inputs. Each agro-dealer must be formally registered as an agent of one or more seed companies (or the national Seed Unit) as an authorized seed seller. The fertilizer suppliers must similarly be formally registered with at least one fertilizer company as an authorized agent.

31. Designated extension workers will work with farmers to confirm the quantities of inputs sought (for both subsidized and non-subsidized commercial sale) and to assure payment for these

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<sup>10</sup> For the purpose of budgeting, it assumed that each demonstration will cover 3 acres of treatment area, and a 3 acre control plot. The actual size may be larger or smaller depending on the capacity of the scheme to control water flows to the experimental plots and the number of farmers volunteering. It is expected there will be two demonstrations per irrigation scheme – one with SRI mechanical technologies and one with SRI herbicide technology, plus the farmer control plot.

<sup>11</sup> This represents a change in the cost and content of the input subsidy currently provided to smallholder farmers in Zanzibar. These farmers will now be provided a more standardized package with a standard exit strategy.

<sup>12</sup> One 50 kg bag of fertilizer to be shared by 4 farmers.

inputs both the upfront and after harvest payments. The extension workers must confirm that each identified farmer has received his or her designated inputs (through a traceable name and signature in a designated register), and the supplier must show proof of having supplied the inputs to the farm community. Once both sets of proof are available, the project can complete the payment to the supplier for the remaining subsidy amount. In order to assure stakeholders understand the rules of the subsidy program, and the program operates on a timely basis, beneficiary surveys will be conducted at each irrigation scheme. These will report on the level of understanding of subsidy rules, as well as the timeliness and accuracy of input delivery. A quantitative summary of the results of the surveys will be provided in each annual report for the project.

32. *Graduation Strategy:* The seed and fertilizer subsidy will be provided to individual farmers for the five year duration of the project but the subsidy amount will decrease gradually over this period. The subsidy for the weeder and row marker will be provided only once. After the five years of support, farmers are expected to have gained enough income to purchase seed (if needed) and fertilizer at full market price. Following is a proposed graduation strategy.

**Table 2: Graduation strategy for input subsidy**

|                                       | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---------------------------------------|--------|--------|--------|--------|--------|
| Farmer's upfront contribution %       | 20     | 30     | 35     | 40     | 50     |
| Government/Project contribution %     | 50     | 40     | 30     | 20     | 20     |
| Farmer's contribution after harvest % | 30     | 30     | 35     | 40     | 30     |
| Total farmer's contribution %         | 50     | 60     | 70     | 80     | 80     |

33. *(iii) Demonstration of SRI Technologies:* Approximately 48 demonstration plots will be implemented each year – or approximately two for each targeted irrigation scheme. The project also will give farmers in Zanzibar an opportunity to test two technology packages highlighting the advantages of the SRI strategy: (i) SRI Manual - this package will include improved seed, inorganic fertilizer application, spacing, seed preparation and early planting, leveling and bunding, intermittent water application and mechanical weeding using rotary/push weeders; and (ii) SRI Herbicides - this is similar to the SRI manual package, however, weed control will be with the use of herbicide. These packages may evolve during the course of the project as greater experience is gained about their performance and acceptability to farmers.

34. Again, the size of each SRI demonstration trial will depend on the configuration of the irrigation scheme<sup>13</sup>. Each demonstration will include both treatment (SRI Manual or SRI Herbicide) and control (normal farmer practice) plots. Farmers volunteering to host the demonstration trials will receive a 100 percent subsidy for the seed and agro-chemical package and a 50 percent subsidy on farm implements. The subsidy will be provided for one season in a year, and will be rotated to new sets of volunteering households each year. Extension staff, with advisory support from research staff, are expected to work with farmers to collect data on the trial

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<sup>13</sup> For the purpose of budgeting, it assumed that each demonstration will cover 0.5 hectares of treatment area, and a 0.5 hectare control plot. The actual size may be larger or smaller depending on the capacity of the scheme to control water flows to the experimental plots and the number of farmers volunteering. It is expected there will be two demonstrations per irrigation scheme – one with SRI mechanical technologies and one with SRI herbicide technology, plus the farmer control plot.

inputs and outputs, and jointly analyze the results. These will be summarized in each of the project's annual reports.

***Component 3: Innovative marketing strategies (US\$2.37 million for Tanzania Mainland only)***

35. The main objective of this component is to raise average farm-gate prices for paddy by enhancing access to markets. The project will support the testing of grain marketing strategies agreed between the participating farmers and the professional scheme managers hired in conjunction with the BRN initiative.

36. This component will be implemented in the Mainland only because rice production in Zanzibar is very low and additional production is expected to be fully consumed by the targeted producers, or within these village communities

**Sub-Component 3.1: Provision of marketing infrastructure: US\$1.4 million**

37. The project will construct and equip five warehouses, one in each of the irrigation schemes targeted for rehabilitation or expansion: Msolwa, Kigugu, Njage, Mvumi and Mbogo. The warehouses will have varying capacities: Njage (1,700MT); Mvumi (1,300MT); Msolwa (3,400MT); Mbogo (1,000MT) and Kigugu (1,000MT). In addition, the project will fund the rehabilitation of feeder roads at Njage (7 km) and Mvumi (8 km) schemes to facilitate transportation of inputs to the schemes and transportation of the paddy from the schemes to the market. The implementation of this section will be led by the professional service manager in collaboration with the respective LGAs through Cooperatives Officers.

**Sub-Component 3.2: Strengthening Market Linkages and Market Information: US\$0.96 million**

38. The professional rice scheme managers being hired under the BRN initiative will lead the testing of marketing options for improving farm-gate prices. These options may include one or more of the following depending on the choice of the community in consultation with the professional scheme manager: a) warehousing for bulk sale on auction to larger buyers; b) warehousing for later sale to take advantage of price seasonality; c) linkages with traders or processors under contracting arrangements; d) promotion of value addition through processing paddy to rice; e) better grading systems; and f) gains possible through better market information. This initiative will be demand-led given the importance of supplier buy-in in identifying acceptable marketing solutions. Correspondingly, it is expected that the professional managers will provide training in market dynamics as well as advisory assistance.

39. The professional managers will work with individual irrigation scheme managers and associated farmer groups to decide which marketing strategy best suits them. The farmer groups, however, are expected to make final decisions on the strategy to pursue. The scheme manager may help evaluate decision options, clarify risks, monitor the result and report the lessons learned.

***Component 4: Project Management and Coordination: US\$3.1 million (US\$1.52 million for Tanzania Mainland and US\$1.6 million for Zanzibar)***

40. The objective of this component is to facilitate efficient implementation of project activities and tracking of results. Management systems will track budgets, disbursements, and the status of workplan implementation. Monitoring and evaluation systems will confirm the baseline measures of key performance indicators and track progress in achieving the expected results.

#### **Subcomponent 4.1: Project management and coordination**

41. The Ministry of Agriculture, Food Security and Cooperatives for Tanzania Mainland will use a dedicated staff team to coordinate and implement the project. The Ministry of Agriculture and Natural Resources in Zanzibar will similarly use a dedicated staff to implement the project, with backstop technical support from consultants hired to strengthen specific skill gaps during project implementation in specific areas, such as financial management and procurement capabilities, where necessary. The project workplans, budgets and technical reporting will be overseen by two Steering Committees for the Mainland and Zanzibar. A sub-set of the members from each of these Steering Committees will meet as a Joint Steering Committee, at least once a year to review the aggregate project progress and implementation challenges and lessons, and provide strategic guidance on project management and implementation. The Tanzania Mainland project team (MAFC) under the oversight of the Director of Policy and Planning will be responsible for aggregating quarterly and annual financial and technical progress reports, and for their timely delivery to IDA.

#### **Subcomponent 4.2: Project monitoring and evaluation**

42. The Tanzania Mainland and Zanzibar teams will be responsible for monitoring project implementation including the measurement of i) the key performance indicators outlined in the Results Framework (Annex 1), and ii) the adherence to environmental and social safeguards. In complement, the project will procure an independent agent to verify the baseline, midterm performance and end of project achievement of key result indicators.

**Annex 3: Implementation Arrangements**  
**Tanzania: Expanding Rice Production (P144497)**

**Project Institutional and Implementation Arrangements**

1. The project will be implemented under the authority of the MAFC of the Tanzania Mainland and the MANR of Zanzibar, with full use of Government systems for project management and activity implementation, procurement, financial management, monitoring and evaluation. The details of these arrangements are provided in the Project Implementation Manual.

***Tanzania Mainland***

2. The day to day implementation of the project will be overseen by a designated implementation team composed of i) a team leader with overall managerial responsibility for the project; ii) a seed specialist with oversight responsibility for the workplans, budgets and implementation progress of component 1; iii) an irrigation specialist with oversight responsibility for the workplans, budgets and implementation progress of sub-component 2.1; iv) crop management specialist with oversight responsibility for the workplans, budgets and implementation progress of sub-component 2.2; v) a marketing specialist with oversight responsibility for the workplans, budgets and implementation progress of component 3; vi) a safeguards specialist with responsibility for oversight of safeguards compliance; vii) a monitoring and evaluation specialist responsible for quarterly and annual technical progress reports; viii) a procurement specialist responsible for the efficiency and timeliness of project procurement; and ix) a financial management specialist responsible for tracking the project accounts and associated reporting. The implementation of project components/activities will be mainstreamed into relevant departments and/or units in MAFC. The responsible director, in consultation with Permanent Secretary will designate the aforementioned component staff/specialists who will be responsible for day-to-day oversight of implementation of project activities within their respective departments/units, in accordance with the agreed project workplan and budget.

3. The responsible departments will work closely with counterparts at regional and district level for the delivery of results. At the local level, implementation will be under the District Executive Director (DED) through the District Agriculture Irrigation and Cooperative Officer (DAICO). The DAICO will be responsible for day-to-day oversight of implementation of project components in the district. This officer will be backed by the Zonal Irrigation and Technical Support Units (ZITSU) in scheme design, supervising rehabilitation works, and training of IOs. At the village/scheme level, implementation of the day to day activities will be the responsibility of IOs and local extension staff and irrigation technicians, backed by specialized professional experts for specific skills, such as business planning, marketing strategies, water resource management, etc., in conjunction with the objectives of BRN initiative.

***Zanzibar***

4. Implementation of the project in Zanzibar will be similarly overseen by a designated implementation team composed of i) a team leader with overall managerial responsibility for those components of the project implemented on the islands; ii) a seed specialist with oversight responsibility for the workplans, budgets and implementation progress of component 1; iii) an irrigation specialist with oversight responsibility for the workplans, budgets and implementation progress of sub-component 2.1; iv) crop management specialist with oversight responsibility for

the workplans, budgets and implementation progress of sub-component 2.2; v) a safeguards specialist with responsibility for oversight of safeguards compliance; vi) a monitoring and evaluation specialist responsible for quarterly and annual technical progress reports; vii) a procurement specialist responsible for the efficiency and timeliness of project procurement; and viii) a project accountant responsible for managing the project accounts and associated reporting. The proposed project team will be drawn from relevant departments and units of MANR to form a PIU. During the first three years of implementation, this team may be backed by technical consultants hired, as needed to provide early guidance in project management, and build Government staff capabilities, in critical technical areas, such as financial management, procurement, monitoring and evaluation, and safeguards, etc.

5. **Technical Steering Committees (TSC).** Two technical project steering committees will be established to provide managerial oversight over the two implementation efforts. For Tanzania Mainland, the Technical Steering Committee will be led by the Principal Secretary of MAFC. Membership will include the Permanent Secretaries responsible for Water, Local Government and Regional Administration, Industry and Trade and the Vice President's Office. In order to avoid duplication of effort and promote collaboration across related projects, the Technical Steering Committee for the Mainland project will report progress to the Steering Committee for the Agricultural Sector Development Programme (ASDP), in line with proposed sector coordination framework. For Zanzibar, the Technical Steering Committee will be led by the Principal Secretary of MANR. Membership will include the Permanent Secretaries responsible for Cooperatives, Union Matters, Environment and Local Government. The main task of the two Steering Committees will be to review the progress of project implementation as laid out in the quarterly and annual progress reports, and approve the respective regional workplans and budgets. The implementation team leaders from the MAFC and the MANR will serve as the secretariat to their respective Steering Committees.

6. **Joint Steering Committee (JSC).** A subset of the members of each regional Steering Committee will meet together at least once a year as a Joint Steering Committee. This committee will review the implementation progress in the Mainland and Zanzibar, discuss implementation challenges and lessons and provide relevant strategic guidance; and sign off on any significant reallocations of the project budget. These meetings will be hosted in alternate between the MAFC on the Mainland, and the MANR on Zanzibar. The Permanent Secretary of the host entity will chair the meeting.

### **Financial Management, Disbursements and Procurement**

7. MAFC in the Mainland and MANR in Zanzibar will be responsible for project financial management. The Permanent Secretary (MAFC) and Principal Secretary (MANR) will be the project accounting officers. Finance units of the two ministries headed by chief accountants will be in charge overall of project financial management. Implementation of the project will use Government financial management systems in budgeting, accounting, internal and external auditing. This includes Government's financial rules and procedures stated in Public Financial Acts (2004 -Tanzania Mainland) and (2005- Zanzibar). Qualified accountants have been assigned to handle project accounts.

8. **Budgeting Arrangements:** The Project implementation team at MAFC and MANR will prepare Annual Work Plans and Budgets (AWPBs) for the project, and will be responsible for producing variance analysis reports comparing planned to actual expenditures on a quarterly basis.

The periodic variance analysis will enable the timely identification of deviations from the budget. These reports will be part of the interim unaudited financial reports (IFRs) that will be reviewed by project management and submitted to the Bank on a quarterly basis. Preparation of the AWPB will be participatory and based on the Medium Term Expenditure Framework (MTEF). The Project Steering Committees will be responsible for budget approval and monitoring of budget execution. Project annual budgets will be included in the respective ministries' annual budget to be approved by the Parliament (Tanzania mainland) and the House of Representatives (Zanzibar).

9. **Accounting Arrangements:** The project shall maintain adequate financial records in accordance with accepted international accounting standards and practices and in accordance to Public Financial Acts (2004 -Tanzania Mainland) and (2005 - Zanzibar) and its guidelines. Books of accounts to be maintained specifically for the project will include: a cash book, ledgers, journals, fixed asset register and a contracts register. A list of accounts codes (Chart of Accounts) for the project will be drawn and maintained. This will match with the classification of expenditures and sources and application of funds.

10. **Internal Controls and Internal Auditing:** Review of the internal control system revealed that there are strong internal controls in place which can be relied upon to manage project funds. Issues identified either by internal audit or the external auditors are addressed by management and a follow up is done by internal audit on a quarterly basis. The Government's financial rules and procedure stated in Public Financial Acts (2004 -Tanzania Mainland) and (2005- Zanzibar) that applies to the ministry's operations will be used in this project. This includes regular audit reviews by the internal audit unit of each ministry. Each ministry's audit committee will play an oversight role over financial matters affecting the project. Its major role will include following up on implementation of internal and external audit queries.

11. **Internal Audit Function:** The MAFC and MANR Internal Audit units headed by Chief Internal Auditors will have overall responsibility of carrying out internal audit reviews of project financial transactions on quarterly basis. The units have audit strategies and plans, and they use the risk based audit approach to carry on their work. The audit function uses internal auditing standards as issued by the Institute of Internal Auditors. The units have adequate qualified and experienced internal auditors who have past experience in reviewing other IDA projects. They have received training on internal audit, risk management and report writing and use an internal audit manual. Each unit issues reports on a quarterly basis that are based on their review of the internal control system of the Ministries. The respective Ministry's Audit Committees review the internal audit reports, and also follow up external audit report recommendations.

12. **Financial Reporting Arrangements:** MAFC and MANR will submit quarterly unaudited Interim Financial Reports (IFRs) to the Bank within 45 days after the end of the calendar reporting period. Reports will therefore be expected for the periods ending in **September, December, March and June** of every year of the project's life. The IFRs will provide quality and timely information to the World Bank, Project management and other stakeholders on the project's financial performance. The IFRs will include Sources and Uses of Funds Statement, Uses of Funds by Project Activity/Component, and category and Designated Account Activity Statement.

13. **Annual Project Financial Statements:** The financial statements will be prepared in accordance with International Public Sector Accounting Standards. Audited financial statements will be submitted to the Bank within nine months after the end of a financial year.

14. These financial statements will comprise:
- **A Statement of Sources and Uses of Funds/Cash Receipts and Payments** which recognizes all cash receipts, cash payments and cash balances controlled by the entity; and separately identify payments by third parties on behalf of the entity;
  - **A Statement of Affairs/ Balance Sheet** as at the end of the financial year showing all the assets and liabilities of the project;
  - **The Accounting Policies Adopted and Explanatory Notes.** The explanatory notes will be presented in a systematic manner with items on the Statement of Cash Receipts and Payments being cross referenced to any related information in the notes; and
  - **A Management Assertion** that Bank funds have been expended in accordance with the intended purposes as specified in the relevant World Bank legal agreement.

15. **External Audit Arrangements:** The Controller and Auditor General (CAG) for both Tanzania Mainland and Zanzibar are primarily responsible for auditing of all Government projects. In some cases, at the discretion of the CAG, the audit may be subcontracted to private auditors, with the final report being issued by the Auditor General, based on the tests carried out by the subcontracted auditors. In case private auditors are contracted, these will have to be acceptable to IDA. In case the audit is subcontracted to a firm of private auditors, IDA funding may be used to pay the cost of the audit. The audits will have to be conducted in accordance with International Standards on Auditing. The audit report together with the management letter will be submitted to the Bank not later than nine months after the end of the financial year. MAFC and MANR will disclose the audited financial statements in a manner acceptable to the Bank. Following the Bank’s formal receipt of the audit report from MAFC and MANR, the World Bank will make them available to the public in accordance with *The World Bank Policy on Access to Information*.

**Table 1: Audit Report Opinion**

| Audit Report Opinion  | Due Date  |
|---|---|
| Project’s annual financial statements audit opinion and management letter. The audited accounts should have adequate disclosures that include the reconciliation of the Designated Account. | By March 31 each year (within nine months after end of the FY which is June 30th of every year during project implementation) |

16. **Governance and Anti-Corruption considerations:** Generally both Governments (Tanzania Mainland and Zanzibar) have institutional weaknesses which comprise of weak internal controls, weak oversight institutions and inadequate accountability mechanisms. The effective implementation of the fiduciary mitigation measures will be an essential factor in strengthening the internal control environment. In addition, the oversight of the project’s technical steering committees, audit committees, enhancements in transparency in project implementation and dissemination of results and information to stakeholders will help address any potential governance and corruption issues during project implementation. The use of hotlines to report corruption and other forms of fraudulent activities is proposed given that they are not in use currently.



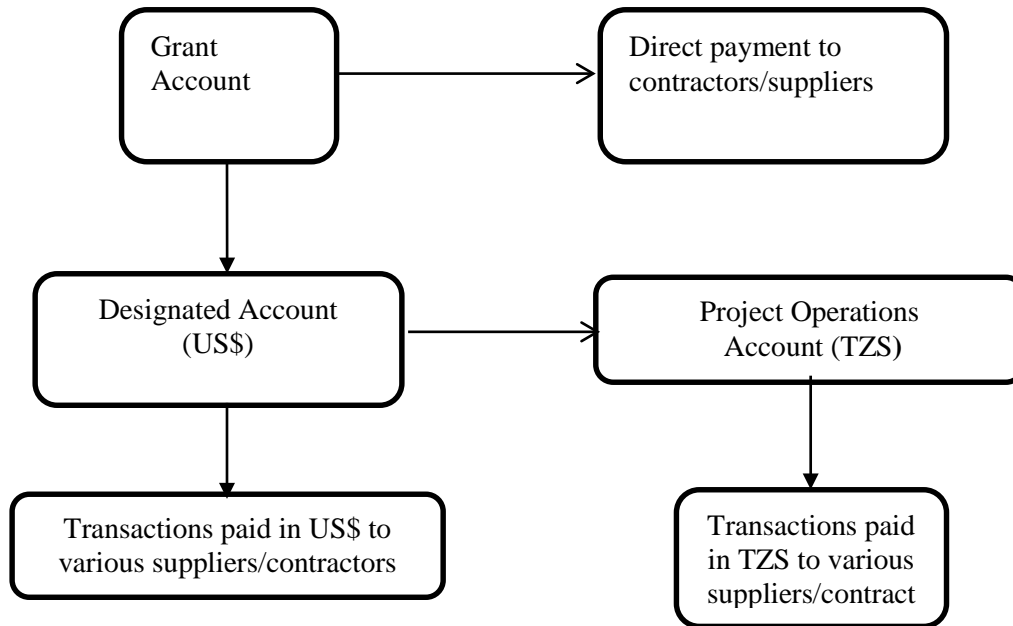
## **Effectiveness Conditions and Financial Covenants**

17. Effectiveness Conditions: there are no financial management effectiveness conditions.
18. Financial Covenants: Financial covenants are the standard ones as stated in the Financing Agreement on Financial Management, Financial Reports and Audits and Section 4.09 of the General Conditions.
19. The Standard financial covenants include the following to IDA:
  - Maintenance of a satisfactory financial management system for the project.
  - Submission of audited project financial statements within nine months after the end of financial year.
  - Submission of unaudited IFRs within 45 days after each calendar year quarterly period.

## **Disbursements**

20. **Project Bank Accounts**: Both Mainland and Zanzibar will maintain two sets of bank accounts: (a) a US dollar Designated Account (DA); and (b) a Tanzania Shilling (TZS) project bank account for purposes of implementing the project. These accounts will be opened at an acceptable bank approved by the Bank of Tanzania. Transfers from the grant will be made into the dollar DA from where US dollars payments will be made. Transfers will also be made from the DA to the TZS project account primarily to meet locally denominated transactions. These designated bank accounts shall be opened by the grant effectiveness date. The diagram below shows the funds flow arrangements.
21. Upon the effectiveness of the project, **transaction-based disbursements method** will be used. An initial advance up to the ceiling of the DA and representing four months of forecasted project expenditures payable through the DA will be made into the designated account and subsequent disbursements will be made on a monthly basis against submission of Statement of Expenditure (SOE) or other documents as specified in the Disbursement Letter. In addition to the advance and replenishment methods, the option of disbursing the funds through direct payments to a third party, for contracts above a pre-determined threshold for eligible expenditures, will also be available. Another acceptable method of withdrawing proceeds from the grant financing is the special commitment method whereby IDA may pay amounts to a third party for eligible expenditures to be paid by the Recipient under an irrevocable Letter of Credit. Details of disbursement arrangement will be highlighted in the project disbursement letter.

Figure 1: Project funds flow arrangements.



22. If ineligible expenditures are found to have been made from the designated and/or local operating bank accounts, MANR and MAFC will be obligated to refund the same. If the designated account remains inactive for more than six months, the project may be requested to refund to IDA amounts advanced to the designated account. The grant will disburse 100 percent of eligible expenditures, except for seed and fertilizer.

23. The proceeds of the grant have been allocated as follows:

**Table 2: Grant allocation**

| Category   | Amount of the Grant Allocated (expressed in US\$) | Percentage of Expenditures to be Financed (inclusive of Taxes) |
|--|---|--|
| (1) Goods, works, non-consulting services, consultant services, Training, and Operating Costs for Component 1, Component 2 (subcomponent 2.1 and 2.2), Component 3, and Component 4 of the Project | 18,460,000  | 100%   |
| (2) Subsidies under Component 2.2 of the Project   | 4,440,000   | 100%   |
| <b>TOTAL AMOUNT</b>  | <b>22,900,000</b>                                 |  |

24. The action plan below indicates the actions to be taken for the project to strengthen its financial management system and the due completion dates.

**Table 3: Financial management action plan**

| <b>Action</b>   | <b>Entity Responsible</b> | <b>Due Date</b>  |
|---|---------------------------|--|
| Opening of designated and project bank accounts and communicating the details and signatories to IDA.   | MAFC and MANR             | After signing of the Grant Agreement but before project effectiveness. |
| Acquisition of a Quick Book accounting software.  | MANR                      | Within six months after project effectiveness                          |
| Train the accountants and internal audit staff on the more recent World Bank Financial Management and Disbursement Guidelines.  | WB                        | Before project effectiveness.  |
| Installation of hotlines and communicating to the public. Put in place a social accountability mechanism and a transparency system that will inform the public of funds received and spent. | MAFC and MANR             | Within three months after project effectiveness.                       |
| Agreeing on the external audit ToRs   | MAFC and MANR /WB         | Before project effectiveness.  |
| Agreeing on the format and content of the IFR   | MAFC and MANR /WB         | Before project effectiveness.  |

## **Procurement**

25. Procurement activities for project will be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 and revised in July 2014 (Procurement Guidelines); "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 and revised in July 2014 (Consultant Guidelines); "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 and the provisions stipulated in the Financing Agreement.

26. Procurements under National Competitive Bidding for MAFC will be governed by the new procurement law - the Public Procurement Act, Act No. 7 of 2011 that came into effect on December 20, 2013. The Act has been reviewed by the World Bank and found to be satisfactory and consistent with Bank Procurement Guidelines, except for the provisions of Clause 54, which permits application of national preference in bid evaluation under National Competitive Bidding (NCB). In line with Bank procedures, there would be no preference accorded to domestic suppliers and contractors under National Competitive Bidding for goods and works. Furthermore, in accordance with paragraph 1.16(e) of the Bank's Procurement Guidelines, each bidding document and contract financed out of the Grant proceeds shall provide that: (a) the bidders, suppliers, contractors and subcontractors shall permit the Bank, at its request, to inspect their accounts and records relating to the bid submission and performance of the contract, and to have said accounts and records audited by auditors appointed by the Bank; and (b) the deliberate and material violation

by the bidder, supplier, contractor or subcontractor of such provision may amount to an obstructive practice as defined in paragraph 1.16(a)(v) of the Procurement Guidelines.

27. Public procurement in Zanzibar is governed by the Public Procurement and Disposal of Public Assets Act No. 9 of 2005 which was enacted following the recommendations of the 2003 Country Procurement Assessment Report (CPAR). The act was reviewed during the 2006 Public Expenditure and Financial Accountability Review and concluded that the law does not conform to the UNICTRAL model law. The deficiencies noted still remain as the act has not been revised to date. The deficiencies are: there are no corresponding guidelines and standard bidding documents; the law does not cover the procurement of non-consulting services; the law lacks a section on international obligation; it does not address the independence of the procurement function to avoid a perception of conflict of interest; the complaint mechanism is not in line with international goods practice – procurement complaints are handled through arbitration and trade tribunals and the regulatory authority has no autonomy because of setting - the regulatory functions are under the Department of Stock Verification and Procurement Services that is a department of the Ministry of Finance and Economic Affairs. Based on the deficiencies noted procurements will follow IDA procurement guidelines and use standard bidding documents.

28. Risk Assessment: MAFC in Tanzania mainland and MANR in Zanzibar will be responsible for Project implementation. The respective PMUs in both entities will be responsible to carry out the procurement function. An assessment of the capacity of MAFC and MANR to implement all procurement actions for the project was undertaken in April 2014. The assessment reviewed the organizational structure, functions, staff skills and experiences, and adequacy for implementation of the project. Key issues noted during the assessment for MAFC include: inadequate procurement staff considering the number of ongoing projects and Government funded procurements, inefficiencies in processing procurement activities in terms of preparing terms of reference, specifications, bidding documents, request for proposals and bids/proposals evaluations, inadequate working environment and space for their accommodation and records keeping/filing, and lack of training and updating of skills on World Bank procurement procedures and processes for the procurement staff and weak contract management. In Zanzibar, the MANR has experience implementing Bank financed projects and has a Procurement Specialist with experience in World Bank procurement procedures. The Procurement Specialist will be assisted by three procurement officers with no experience in World Bank procurement procedures and processes and inadequate knowledge in contract management. Specific key findings for the MANR are as follows: Zanzibar procurement system does not conform to the UNICTRAL model law; weak procurement records filing and management system; there are no bidding documents acceptable by the Bank; and the complaints review system is not in line with international practice. The overall project risk for procurement was assessed Substantial, but with mitigation measures outlined below, the residual risk is Moderate.

**Table 4: Procurement risk mitigation measures**

| Risk   | Action   | Timeframe                     | Responsibility     |
|--|--|-------------------------------|--------------------|
| Inadequate number of procurement staff   | Assign/ reassign specific procurement officer from the Government system to be responsible for the project                                     | During Project Implementation | MAFC               |
| Inadequate working area/rooms and space for records keeping/filing                                       | Provide sufficient working area/rooms and space for records keeping/filing<br>Establish a proper filing and management of procurement records. | During Project Implementation | MAFC and MANR      |
| Procurement staff have inadequate/outdated knowledge on World Bank procurement procedures and processes. | Provide training on World Bank procurement procedures and processes as well as contract management.  | During Project Implementation | MAFC, MANR and IDA |

29. **Frequency of Procurement Supervision:** In addition to the prior review supervision to be carried out from Bank offices, the capacity assessment of the Implementing Agency recommends one supervision mission every six months to visit the field to carry out post review of procurement actions.

30. The Tables below summarize the project's procurement packages and arrangements/methods.

**Table 5: List of contract packages – Goods, Works and Non-Consulting Services**

| 1             | 2   | 3                       | 4                  | 5                  | 6                          | 7                            | 8                                  | 9                                 |
|---------------|---|-------------------------|--------------------|--------------------|----------------------------|------------------------------|------------------------------------|-----------------------------------|
| Ref. No.      | Contract (Description)  | Estimated Cost in US \$ | Procurement Method | Prior/ Post Review | Prequalification (Yes/ No) | Domestic Preference (Yes/No) | Expected Bid Closing/ Opening Date | Comments                          |
| <b>Works</b>  |   |                         |                    |                    |                            |                              |                                    |                                   |
| <b>CAT-W1</b> | Rehabilitation of ASA Seed Laboratory   | 124,000                 | Shopping           | NO                 | NO                         | Post                         | 21 April 2015                      | MAFC                              |
| <b>CAT-W2</b> | Upgrading of Six (6) Irrigation Schemes - Njage , Msolwa, Mvumi, Kilangali, Kigugu and Mbogo with construction of feeder roads at Mvumi and Njage | 4,654,572               | NCB                | NO                 | NO                         | Prior                        | 5 October 2015                     | MAFC<br>Selected for Prior Review |
| <b>CAT-W3</b> | Construction of Five (5) Warehouses - at Mvumi, Msolwa,   | 870,000                 | NCB                | NO                 | NO                         | Post                         | 21 September 2015                  | MAFC                              |

| 1              | 2   | 3                       | 4                  | 5                  | 6                         | 7                            | 8                                  | 9                               |
|----------------|---|-------------------------|--------------------|--------------------|---------------------------|------------------------------|------------------------------------|---------------------------------|
| Ref. No.       | Contract (Description)  | Estimated Cost in US \$ | Procurement Method | Prior/ Post Review | Prequalification (Yes/No) | Domestic Preference (Yes/No) | Expected Bid Closing/ Opening Date | Comments                        |
|                | Njage, Kigugu and Mbogo   |                         |                    |                    |                           |                              |                                    |                                 |
| <b>CAT-ZW1</b> | Upgrading 10 Irrigation Schemes (Unguja - Kibonde Mzungu, Mtwango, Koani, Mchangani and Banda Maji) & (Pemba - Machingini, Ole, Dobi 1, Dobi 2 and Kwalempona) includes supply and installation of transformers and pumps in 5 irrigation schemes | 1,174,700               | NCB                | NO                 | NO                        | Prior                        | 09 June 2015                       | MANR<br><br>Selected for Review |
| <b>Goods</b>   |   |                         |                    |                    |                           |                              |                                    |                                 |
| <b>CAT-G1</b>  | Supply of Vehicles (Double cabin, hard tops) and Motorbikes Three Lots  | 301,000.                | NCB                | NO                 | NO                        | Post                         | 10 April 2015                      | MAFC                            |
| <b>CAT-G2</b>  | Office Equipment Supply of (Laptops, Desktops, Printers, Photocopier, Scanner, Digital Camera)  | 37,000                  | Shopping           | NO                 | NO                        | Post                         | 25 May 2015                        | MAFC                            |
| <b>CAT-G3</b>  | Supply of Seeds   | 961,500                 | NCB                | No                 | No                        | Post                         | 15 April 2015                      | MAFC                            |
| <b>CAT-G4</b>  | Supply of Fertilizers   | 3,226,800               | ICB                | No                 | No                        | Prior                        | 15 April 2015                      | MAFC                            |
| <b>CAT-G5</b>  | Supply of Herbicides, Push Weeders and Space Markers  | 69,100                  | Shopping           | No                 | No                        | Post                         | 10 April 2015                      | MAFC                            |
| <b>CAT-G6</b>  | Supply of Office furniture  | 10,000                  | Shopping           | NO                 | NO                        | Post                         | 25 May 2015                        | MAFC                            |
| <b>CAT-ZG1</b> | Supply of 6 Motor Vehicles and 10 Motorcycles   | 333,000                 | NCB                | NO                 | NO                        | Post                         | 15 April 2015                      | MANR                            |
| <b>CAT-ZG2</b> | Supply of Office Equipment (Laptops, Desktops, Printers, Photocopiers, Scanners, Digital Camera & Projectors)   | 21,800                  | Shopping           | NO                 | NO                        | Post                         | 06 April 2015                      | MANR                            |
| <b>CAT-ZG3</b> | Supply of Air Conditioners  | 6,400                   | Shopping           | NO                 | NO                        | Post                         | 06 April 2015                      | MANR                            |

| 1                               | 2  | 3                       | 4                  | 5                 | 6                         | 7                            | 8                                 | 9        |
|---------------------------------|--|-------------------------|--------------------|-------------------|---------------------------|------------------------------|-----------------------------------|----------|
| Ref. No.                        | Contract (Description)   | Estimated Cost in US \$ | Procurement Method | Prior/Post Review | Prequalification (Yes/No) | Domestic Preference (Yes/No) | Expected Bid Closing/Opening Date | Comments |
| CAT-ZG4                         | Supply of Office Furniture   | 12,000                  | Shopping           | NO                | NO                        | Post                         | 06 April 2015                     | MANR     |
| CAT-ZG5                         | Procurement of Seeds   | 131,355                 | NCB                | NO                | NO                        | Post                         | 15 April 2015                     | MANR     |
| CAT-ZG6                         | Supply of Fertilizers  | 305,999                 | NCB                | NO                | NO                        | Post                         | 15 April 2015                     | MANR     |
| CAT-ZG7                         | Supply of Herbicides, Push Weeders and Space Markers   | 91,425                  | Shopping           | NO                | NO                        | Post                         | 15 April 2015                     | MANR     |
| CAT-ZG8                         | Supply of Laboratory Equipment for Kizimbani Seed Laboratory                                 | 20,000                  | Shopping           | NO                | NO                        | Post                         | 18 May 2015                       | MANR     |
| CAT-G7                          | Supply and Installation of Software to Establish Simple Programme's MIS in the MAFC and MANR | 44,000                  | Shopping           | NO                | NO                        | Post                         | 24 April 2015                     | MAFC     |
| <b>Non- Consulting Services</b> |  |                         |                    |                   |                           |                              |                                   |          |
| CAT-NC 1                        | Supply and Installation of Internet services   | 30,000                  | Shopping           | NO                | NO                        | Post                         | 24 April 2015                     | MAFC     |

31. Contracts for goods estimated to cost US\$1,000,000 and above equivalent per contract, for works estimated to cost US\$10,000,000 and above equivalent per contract, for non-consulting/IT systems estimated to cost US\$1,000,000 and above equivalent per contract, and all direct contracting would be subject to prior review by the Bank.

**Table 6: Consulting services contracts**

| 1        | 2  | 3              | 4                | 5                             | 6                                  | 7                                 |
|----------|--|----------------|------------------|-------------------------------|------------------------------------|-----------------------------------|
| Ref. No. | Description of Assignment  | Estimated cost | Selection Method | Review by Bank (Prior / Post) | Expected Proposals Submission Date | Comments                          |
| CAT-C1   | Consultancy Services for Designing and Construction Supervision for Njage, Msolwa, Mvumi, Kilangali, Kigugu and Mbogo Irrigation Schemes and associated feeder roads | 243,000        | CQBS             | Prior                         | 28 January 2015                    | MAFC<br>Selected for Prior Review |
| CAT-C2   | Consultancy Services for Designing and Construction  | 220,000        | CQS              | Post                          | 28 January 2015                    | MAFC                              |

| 1              | 2  | 3              | 4                | 5                             | 6                                  | 7                                 |
|----------------|--|----------------|------------------|-------------------------------|------------------------------------|-----------------------------------|
| Ref. No.       | Description of Assignment  | Estimated cost | Selection Method | Review by Bank (Prior / Post) | Expected Proposals Submission Date | Comments                          |
|                | Supervision of Warehouse Construction at Njega, Mvumi, Msolwa, Mbogo and Kigugu  |                |                  |                               |                                    |                                   |
| <b>CAT-C4</b>  | Provision of Consulting Services for Conducting Environmental and Social Impact Assessment (ESIA) for Irrigation schemes, feeder road and warehouse at Njage, Msolwa, Mvumi, Kilangali, Kigugu and Mbogo Irrigation Schemes  | 150,000        | CQS              | Post                          | 9 January 2015                     | MAFC                              |
| <b>CAT-C6</b>  | Consultancy Services to Design and supervise the Rehabilitation of ASA Seed Laboratory   | 20,000         | CQS              | Post                          | 22 December 2014                   | MAFC                              |
| <b>CAT-C7</b>  | Provision of Consulting Services for Capacity Building for Warehouse Operators   | 94,000         | CQS              | Post                          | 22 December 2014                   | MAFC                              |
| <b>CAT-ZC1</b> | Consulting Services for Detailed Design, Preparation of Cost Estimate, Preparation of Bidding Documents and Construction Supervision of 10 Irrigation Schemes (Unguja - Kibonde Mzungu, Mtwango, Koani, Mchangani and Banda Maji) & (Pemba - Machingini, Ole, Dobi 1, Dobi 2 and Kwalempona) | 88,800         | CQS              | Post                          | 18 February 2015                   | MANR                              |
| <b>CAT-ZC2</b> | Consulting Services for Baseline Study in Mainland and Zanzibar  | 90,000         | CQS              | Prior                         | 18 December 2014                   | MANR<br>Selected for Prior Review |

32. Consulting services estimated to cost US\$300,000 and above equivalent per contract for firms and US\$100,000 and above equivalent per contract for Individuals; and all single source selection of consultants would be subject to prior review by the Bank.

33. Shortlists composed entirely of national consultants. Short-lists for consulting services for contracts estimated to cost less than US\$300,000 and below equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.



34. Advertising. Consulting services for contracts estimated to cost US\$300,000 and above equivalent per contract shall be advertised in the United Nations Development Business (UNDB) online in addition to advertising in the national newspaper(s) of wide circulation and/or regional newspaper in accordance with the provisions of paragraph 2.5 of the Consultant Guidelines.

**Thresholds for Procurement methods and for prior review are presented:** Thresholds for procurement methods and for prior review are presented in the table below.

**Table 7: Thresholds for procurement methods**

| Expenditure Category                                 | Contract Value             | Procurement/<br>Selection Method | Contracts Subject to  |
|--|----------------------------|----------------------------------|---|
|  | Threshold<br>(US\$)        |                                  | Prior Review  |
| <b>Works</b>   | ≥15,000,000                | ICB                              | All   |
|  | <15,000,000<br>≥10,000,000 | NCB                              | All   |
|  | <10,000,000                | NCB                              | None (Post review) unless specified in the Procurement Plan |
|  | <200,000                   | Shopping                         | None (Post review)  |
|  | All values                 | Direct Contracting               | All   |
| <b>Goods, IT Systems and Non-Consulting Services</b> | ≥3,000,000                 | ICB                              | All   |
|  | <3,000,000 ≥ 1,000,000     | NCB                              | All   |
|  | <1,000,000                 | NCB                              | None (Post review) unless specified in the Procurement Plan |
|  | <100,000                   | Shopping                         | None (Post review)  |
|  | All values                 | Direct Contracting               | All   |
| Expenditure Category                                 | Threshold (US\$)           | Procurement/ Selection Method    | Prior Review  |
| <b>Consulting Services – Firms</b>                   | > 500,000                  | QCBS/ Other (QBS/FBS/ LCS)       | All   |
|  | <500,000 ≥ 300,000         | QCBS/ Other (QBS/FBS/ LCS)       | None (Post Review) unless specified in the Procurement Plan |
|  | < 300,000                  | CQS/ Other (QCBS/QBS/ FBS/LCS)   | None (Post Review) unless specified in the Procurement Plan |
|  | All values                 | SSS                              | All   |
|  | ≥200,000                   | IC – Qualification               | All   |

|   |            |                    |   |
|---|------------|--------------------|---|
| <b>Consulting Services –<br/>Individuals (IC)</b> | <200,000   | IC – Qualification | None (Post review) unless specified in the Procurement Plan |
|   | All Values | IC – SSS           | All   |

### **Environmental and Social (including safeguards)**

35. The responsibility for overseeing the implementation of environmental and social safeguards arrangements lies with the respective team leaders for the Mainland and the Zanzibar project teams, and their safeguards specialists. The project is not expected to generate significant negative environmental or social impacts. However, there will likely be location specific impacts that will need to be mitigated by application of the action plans laid out in the project specific Environmental and Social Management Framework (ESMF), the Integrated Pest Management Plan (IPMP) and the Resettlement Action Plans (RAPs). These include the need for Environmental Impact Assessments (EIA) for the irrigation schemes that are being rehabilitated or extended.

36. Every quarterly and annual technical progress report is expected to have a summary of activities showing how these environmental and social safeguards are being implemented. IDA’s safeguards specialists will conduct a semi-annual review of safeguards compliance during each implementation support mission.

### **Monitoring & Evaluation**

37. The MAFC and MANR will be jointly responsible for monitoring of the project implementation and results. The MAFC will report on the implementation of activities and results achieved on the Tanzania Mainland, and the MANR will report on the implementation of activities and the results achieved for Zanzibar. These reports will be aggregated by the Tanzania Mainland implementation team for presentation to IDA.

38. The two task teams will be aided by the establishment of a simple management information system (MIS) designed to help each implementation team leader to track i) the disbursement of project funds; ii) the use of project budgets; iii) the status of procurement commitments; iv) the status of activity implementation; v) the status of report delivery; and vi) the level of achievement of agreed performance indicators. A principal aim of this MIS is to help keep implementation on schedule and diagnose constraints likely to delay project implementation as these appear. This system should facilitate the completion of the quarterly technical reports.

39. *Reporting arrangements.* The implementation team for the Mainland is required to submit quarterly technical progress reports to IDA within 45 days of the end of each fiscal year quarter. Each report will be a compilation of results from both the Mainland and Zanzibar (as reported by the Zanzibar implementation team). Each of these reports will include i) a summary of progress in workplan implementation, including a review of any challenges encountered; ii) a summary of expenditures relative to project disbursement targets, and iii) a summary of results being achieved, including a copy of the Results Framework listing performance targets and accomplishment. The performance targets are not expected to change in every quarterly report. However, the implementation team is expected to summarize the progress of performance monitoring, and highlight any challenges that may affect the achievement of project targets.

40. In addition, the two implementation teams will submit to both IDA and their respective Steering Committees, an annual summary report of accomplishment with their proposed workplan

and budget allocation for the next fiscal year – at least 2 weeks prior to the Steering Committee at which this workplan and budget will be approved. This will include a detailed enough discussion of implementation accomplishment to justify the next year’s investment in a new workplan.

41. *Implementation Support Missions.* The Project will undertake regular joint implementation reviews twice a year. These will include travel to project implementation sites in both Morogoro and Zanzibar. The reviews will be facilitated and coordinated by the Mainland implementation team backed by the implementation team for Zanzibar. Each review will culminate in a single meeting with key representatives of the implementing agencies to discuss the aide memoire, and key steps for strengthening project implementation.

42. The tracking of performance results will be the main responsibility of the M&E specialists linked with the Mainland and Zanzibar implementation teams. This tracking will be primarily based on three formal, independently implemented<sup>14</sup> surveys – a baseline, mid-term, and an end of project survey. These surveys will be supplemented by smaller annual review surveys conducted under the guidance of the M&E specialists.

43. *Baseline Survey.* In the first year of the project, a single baseline survey will be contracted – encompassing both the Mainland and Zanzibar. This will be a narrowly targeted survey designed to confirm the baseline levels of key performance indicators – particularly the starting levels of production, yield, technology adoption and marketing in each of the broadly targeted irrigation schemes (40 in Morogoro and 24 in Zanzibar). The terms of reference for this contract will be jointly agreed by the Mainland and Zanzibar teams, and approved by IDA. This report should be delivered before the workplan and budget are agreed for the second year of the project.

44. *Midterm Evaluation.* A midterm evaluation will be undertaken after 24 months of project implementation allowing the results to be discussed well before the start of the third implementation year. The main purpose of the evaluation will be: (a) to determine whether satisfactory progress is being made towards meeting the original PDO, (b) to review the level of achievement for each performance indicator, (c) to assess the progress of implementation of each project sub-component, (d) to assess the use of the project budget, and (e) to assess the need for any restructuring of overall workplans and budgets. The mid-term evaluation may include, apart from a more detailed analysis of information collected and stored in the MIS, the commissioning of special studies (which may include both qualitative and quantitative surveys) by external consultants.

45. *End of Project Evaluation.* During the fifth year of project implementation, a single end of project survey will be externally contracted to confirm the level of accomplishment of agreed performance indicators, to assess the economic and financial returns to the project investment, and to draw lessons for the implementation of similar projects in the future. Again this survey will cover both the Mainland and Zanzibar. The terms of reference for this study will be jointly agreed by the implementation teams of the Mainland and Zanzibar, and approved by IDA. This study should be completed with the delivery of the final report before the close of the project.

46. *Supplementary Surveys.* Additional special topic surveys are expected to be conducted in order to better assess progress underlying the implementation of the BRN approach to the professional management of rice schemes, to assess stakeholder satisfaction with the input subsidy

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<sup>14</sup> Contracted to a firm specializing in farm surveys and impact assessment.

scheme, and evaluate the evolving market prospects for rice. These will generally be contracted to subject matter specialists.

47. *Implementation Completion Report (ICR)*. The two implementation teams will prepare and submit a single ICR prior to the project's closing date. IDA will prepare its own ICR within six months after the closing date.

## Annex 4. Operational Risk Assessment Framework (ORAF)

### Tanzania: Expanding Rice Production (P144497)

|   |  |                        |                              |   |                      |                       |
|---|--|------------------------|------------------------------|---|----------------------|-----------------------|
| <b>1. Project Stakeholder Risks</b>   | <b>Rating</b>  | Moderate               |                              |   |                      |                       |
| <b>Description:</b> Relations with Governments: The project has high visibility across two sets of governmental institutions for the mainland and for Zanzibar with differing visions of the growth of the rice subsector, and the different policies relating to rice trade and input subsidies. | <b>Risk Management:</b><br>The design is based on intensive discussions with the two Governments with modifications to reflect the unique interests of each. Both Governments will be represented on a Joint Steering Committee.                                     |                        |                              |   |                      |                       |
|   | <b>Resp:</b> Recipient   | <b>Status:</b> Ongoing | <b>Stage:</b> Implementation | <b>Recurrent:</b> <input checked="" type="checkbox"/> | <b>Due Date:</b> n/a | <b>Frequency:</b> n/a |
| <b>Description:</b> Relations with development partners: The project may compete for Government attention with similar rice irrigation initiatives funded by other development partners, affecting donor relations.   | <b>Risk Management:</b><br>Complementarity with other rice related projects has been considered during the project design. Other development partners involved in supporting the rice sector may be invited to participate in joint implementation support missions. |                        |                              |   |                      |                       |
|   | <b>Resp:</b> Recipient/Bank  | <b>Status:</b> Ongoing | <b>Stage:</b> Implementation | <b>Recurrent:</b> <input checked="" type="checkbox"/> | <b>Due Date:</b> n/a | <b>Frequency:</b> n/a |
| <b>Description:</b> Relations with farmers: farmers are unhappy about Government intervention in the management of their rice schemes   | <b>Risk Management:</b><br>The project design emphasizes consultation with farmers. The monitoring plan includes an annual independent monitoring survey of farmer satisfaction with project efforts   |                        |                              |   |                      |                       |
|   | <b>Resp:</b> Recipient   | <b>Status:</b> Ongoing | <b>Stage:</b> Implementation | <b>Recurrent:</b> <input checked="" type="checkbox"/> | <b>Due Date:</b> n/a | <b>Frequency:</b> n/a |
| <b>2. Implementing Agency Risks (including fiduciary)</b>   |  |                        |                              |   |                      |                       |
| <b>2.1 Capacity</b>   | <b>Rating:</b>   | High                   |                              |   |                      |                       |
| <b>Description:</b> Weak procurement systems have delayed the implementation of works and consultancies for related agricultural projects.  | <b>Risk Management:</b><br>Establishment and application of a management information system with regular tracking of implementation accomplishment in quarterly reports.   |                        |                              |   |                      |                       |
|   | <b>Resp:</b> Recipient   | <b>Status:</b> Ongoing | <b>Stage:</b> Implementation | <b>Recurrent:</b> <input checked="" type="checkbox"/> | <b>Due Date:</b> n/a | <b>Frequency:</b> n/a |
| <b>Description:</b> The MANR has limited experience in managing this sort of project.   | <b>Risk Management:</b><br>Temporary advisory assistance will be hired to build MANR team capacity for the first 3 years of the project. The MAFC will be responsible for consolidating project reports and assuring quality control.                                |                        |                              |   |                      |                       |
|   | <b>Resp:</b> Recipient   | <b>Status:</b> Ongoing | <b>Stage:</b> Implementation | <b>Recurrent:</b> <input type="checkbox"/>            | <b>Due Date:</b> n/a | <b>Frequency:</b> n/a |

|  |  |                           |                                 |  |                         |                          |
|--|--|---------------------------|---------------------------------|--|-------------------------|--------------------------|
| <b>Description:</b> M&E capacity needs strengthening to assure accurate and transparent understanding of project impact.   | <b>Risk Management:</b><br>Contracting of independent baseline and end of project surveys. Capacity building will be linked with interim surveys of project progress.  |                           |                                 |  |                         |                          |
|  | <b>Resp:</b><br>Recipient  | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>2.2 Governance</b>  | <b>Rating:</b> Substantial   |                           |                                 |  |                         |                          |
| <b>Description:</b> Inter-ministerial collaboration on project implementation is commonly a challenge.   | <b>Risk Management:</b><br>Project steering committees include Permanent Secretaries of key implementing Ministries and directors of key collaborating institutes  |                           |                                 |  |                         |                          |
|  | <b>Resp:</b><br>Recipient  | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>Description:</b> Elite capture by farmers with larger holdings on irrigation schemes.   | <b>Risk Management:</b><br>Participatory decision making under the guidance of the Irrigator Organizations to help determine who hosts crop management trials and sequencing of temporary subsidy allocation.  |                           |                                 |  |                         |                          |
|  | <b>Resp:</b><br>Recipient  | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>3 Project Risks</b>   |  |                           |                                 |  |                         |                          |
| <b>3.1 Design</b>  | <b>Rating:</b> Substantial   |                           |                                 |  |                         |                          |
| <b>Description:</b> Linkage with BRN initiative creates undue expectations and the risk of undue Government interference in the operation of irrigation schemes; high quality professional managers are not readily available. | <b>Risk Management:</b><br>Discussions about the details of the BRN strategy during project design with flexibility agreed on the implementation procedures; this risk will be monitored closely during project implementation leading to discussions with the Ministry Delivery Unit to quickly resolve implementation challenges |                           |                                 |  |                         |                          |
|  | <b>Resp:</b><br>Recipient/Bank   | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>Description:</b> Seed companies remain with limited incentive to invest in the production and sale of rice seed if the ASA is subsidized to do so.  | <b>Risk Management:</b> Annual discussion between MAFC, MANR, ASA and the private seed companies interested in commercial rice seed production, and sale to define a common workplan supporting the testing of commercial seed markets.  |                           |                                 |  |                         |                          |
|  | <b>Resp:</b><br>Recipient  | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>Description:</b> The timely improvement of irrigation systems is undermined by inadequate access to engineering skills; especially in view of the competing demands for these services.                                     | <b>Risk Management:</b><br>Hiring of private assistance will be possible if public support is inadequate; close tracking of implementation progress.   |                           |                                 |  |                         |                          |
|  | <b>Resp:</b> Recipient   | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>Risk Management:</b>  |  |                           |                                 |  |                         |                          |

|  |   |                                   |   |  |                                 |                                  |
|--|---|-----------------------------------|---|--|---------------------------------|----------------------------------|
| <p><b>Description:</b> Rice is not profitable enough given the rise in market deliveries, or availability of low cost imports, to justify investments in new technologies.</p>   | <p>The technology promotion effort under the project allows farmers to choose technologies suited to their risk preferences and view of the market; a component of monitoring will encompass the evaluation of market prospects, including the impact of import policies on domestic rice production.</p> |                                   |   |  |                                 |                                  |
|  | <p><b>Resp:</b><br/>Recipient</p>   | <p><b>Status:</b><br/>Ongoing</p> | <p><b>Stage:</b><br/>Implementation</p> | <p><b>Recurrent:</b><br/><input checked="" type="checkbox"/></p> | <p><b>Due Date:</b><br/>n/a</p> | <p><b>Frequency:</b><br/>n/a</p> |
| <p><b>3.2 Social &amp; Environmental</b></p>   | <p><b>Rating:</b> Moderate</p>  |                                   |   |  |                                 |                                  |
| <p><b>Description:</b> There is a possibility of fertilizer or pesticide runoff and contamination of groundwater supplies. The use of pesticides, either as seed treatment or in the field presents a health risk to the farmer and agro-dealer.</p> | <p><b>Risk Management:</b><br/>Application of the ESMF and the PMP will be monitored during project implementation and during associated implementation support missions.</p>   |                                   |   |  |                                 |                                  |
|  | <p><b>Resp:</b><br/>Recipient</p>   | <p><b>Status:</b><br/>Ongoing</p> | <p><b>Stage:</b><br/>Implementation</p> | <p><b>Recurrent:</b><br/><input checked="" type="checkbox"/></p> | <p><b>Due Date:</b><br/>n/a</p> | <p><b>Frequency:</b><br/>n/a</p> |
| <p><b>Description:</b> There is a possibility of resettlement associated with the reconfiguration of irrigation schemes being rehabilitated or extended.</p>   | <p><b>Risk Management:</b><br/>RAPs will be drafted during the design of the irrigation schemes, and implementation will be reviewed during implementation support missions</p>   |                                   |   |  |                                 |                                  |
|  | <p><b>Resp:</b><br/>Recipient</p>   | <p><b>Status:</b><br/>Ongoing</p> | <p><b>Stage:</b><br/>Implementation</p> | <p><b>Recurrent:</b><br/><input checked="" type="checkbox"/></p> | <p><b>Due Date:</b><br/>n/a</p> | <p><b>Frequency:</b><br/>n/a</p> |
| <p><b>Description:</b> Women farmers are forced out of the irrigation scheme as rice production becomes more commercialized.</p>   | <p><b>Risk Management:</b><br/>Project performance indicators highlight the importance of benefit flows to women; this issue will be checked during impact surveys and during project implementation missions</p>   |                                   |   |  |                                 |                                  |
|  | <p><b>Resp:</b><br/>Recipient</p>   | <p><b>Status:</b><br/>Ongoing</p> | <p><b>Stage:</b><br/>Implementation</p> | <p><b>Recurrent:</b><br/><input checked="" type="checkbox"/></p> | <p><b>Due Date:</b><br/>n/a</p> | <p><b>Frequency:</b><br/>n/a</p> |
| <p><b>3.3 Program &amp; Donor</b></p>  | <p><b>Rating:</b> Low</p>   |                                   |   |  |                                 |                                  |
| <p><b>Description:</b> There is the risk that the project could duplicate the efforts of other projects/donors in strengthening national seed, extension and marketing systems.</p>  | <p><b>Risk Management:</b><br/>The complementarity of this project with similar projects in the sub-sector has been reviewed during the preparation and will be annually reviewed during implementation support missions.</p>   |                                   |   |  |                                 |                                  |
|  | <p><b>Resp:</b><br/>Recipient/Bank</p>  | <p><b>Status:</b><br/>Ongoing</p> | <p><b>Stage:</b><br/>Implementation</p> | <p><b>Recurrent:</b><br/><input checked="" type="checkbox"/></p> | <p><b>Due Date:</b><br/>n/a</p> | <p><b>Frequency:</b><br/>n/a</p> |
| <p><b>3.4 Delivery Monitoring &amp; Sustainability</b></p>   | <p><b>Rating:</b> Substantial</p>   |                                   |   |  |                                 |                                  |
| <p><b>Description:</b> The adoption of improved technologies may stop when the subsidies are phased out.</p>   | <p><b>Risk Management:</b><br/>Farmers will be warned that the subsidy is temporary when the program starts and each year thereafter; Extension support will targeted improved technology use efficiency</p>  |                                   |   |  |                                 |                                  |
|  | <p><b>Resp:</b><br/>Recipient</p>   | <p><b>Status:</b><br/>Ongoing</p> | <p><b>Stage:</b><br/>Implementation</p> | <p><b>Recurrent:</b><br/><input checked="" type="checkbox"/></p> | <p><b>Due Date:</b><br/>n/a</p> | <p><b>Frequency:</b><br/>n/a</p> |
|  | <p><b>Risk Management:</b></p>  |                                   |   |  |                                 |                                  |

|   |   |                           |                                 |  |                         |                          |
|---|---|---------------------------|---------------------------------|--|-------------------------|--------------------------|
| <b>Description:</b> The adoption of improved technologies and expansion of production for the market may be undermined by low market prices because of cheap rice imports | The marketing component of the project will specifically aim to improve farm-gate prices; the market analyses planned under the project will seek to inform rice import policies            |                           |                                 |  |                         |                          |
|   | <b>Resp:</b><br>Recipient   | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>Description:</b> The sustainability of irrigation investments may be undermined by lack of community ownership.  | <b>Risk Management:</b><br>The project will place emphasis on the establishment of well-functioning Irrigator Organizations that contribute to the costs of rehabilitation and maintenance. |                           |                                 |  |                         |                          |
|   | <b>Resp:</b><br>Recipient   | <b>Status:</b><br>Ongoing | <b>Stage:</b><br>Implementation | <b>Recurrent:</b><br><input checked="" type="checkbox"/> | <b>Due Date:</b><br>n/a | <b>Frequency:</b><br>n/a |
| <b>Overall Risk</b>   |   |                           |                                 |  |                         |                          |
| <b>Implementation Risk Rating:</b> Substantial  |   |                           |                                 |  |                         |                          |
| Risk Description: Rating due to weaknesses in implementation capacity   |   |                           |                                 |  |                         |                          |



## Annex 5: Implementation Support Plan

### TANZANIA: Expanding Rice Production Project (P144497)

#### I. Strategy and Approach for Implementation Support

1. The ERP implementation support strategy is informed by both the nature of the project and its risk profile. The objective is to offer timely, flexible and efficient implementation support to the client to help mitigate the risks-especially those rated as high or substantial in the ORAF (namely capacity of the implementing agency, design risk and sustainability of outcomes). The strategy also encompasses the standard areas of support focus including safeguards and fiduciary aspects.
2. The Bank’s Task Team based in-country will provide implementation support to the client as and when required. In addition to this support, there will be the more formal comprehensive semi-annual supervision and field visits where the focus will be on: (i) assessing implementation progress for each of the project components including the links between project activities, outputs and envisaged outcomes; (ii) providing solutions to any project implementation bottlenecks; (iii) reviewing together with the two implementing ministries the six month work plans and budgets; (iv) reviewing of project fiduciary aspects including disbursement and procurement; (v) ascertaining and confirming that project activities are carried out in compliance with the agreed environmental and social safeguard procedures; (vi) coordination arrangements between the two implementing ministries; and (vii) technical aspects especially those related to the component on technology dissemination through demonstrations and the subsidy program.
3. There will also be a Mid-term Review (MTR) approximately halfway through implementation to take stock of implementation progress, and to assess performance against the agreed set of indicators and milestones. The MTR will also provide an opportunity to reassess major design features-if necessary- to enable attainment of project objectives. There will also be independent assessments to verify project performance and achievement of project indicator targets. At the end of the project, both the client and the Bank will conduct reviews to provide a complete and systematic account of the performance of the project and to draw lessons for future investments.
4. **Financial Management:** Based on the outcome of the financial management risk assessment, the following implementation support plan is proposed:

| FM Activity  | Frequency  |
|--|--|
| <b><u>Desk Reviews</u></b>   |  |
| Interim financial reports review   | Quarterly  |
| Project audit report review  | Annually   |
| Review of other relevant information such as systems, audit reports  | As these become available  |
| <b><u>Site Visits</u></b>  |  |
| Review of overall operation of the FM system   | Annually based on the moderate risk rating.  |
| Monitoring of actions taken on issues highlighted in audit reports, auditors’ management letters, systems audit report etc | As needed  |
| Transaction reviews  | As needed  |
| <b><u>Capacity Building Support</u></b>  |  |
| FM training sessions   | Within six months after credit effectiveness and as needed during project implementation |

**5. Environmental and Social Safeguards:** The environment and social specialists will support relevant counterpart staff and provide any capacity building where necessary. The envisaged focus of the social supervision will be on implementation of the agreed Resettlement Policy Framework, while the environmental supervision will focus on the implementation of the IPMP and the EMPs.

## Implementation Support Plan

6. The Implementation Support Plan below provides a further description of how the Bank will support the implementation of the risk mitigation measures (identified in the ORAF) and provide the technical advice necessary to facilitate achieving the PDO (linked to results/outcomes identified in the Results Framework). The support plan also identifies the minimum requirements to meet the Bank’s fiduciary obligations.

| <b>Risk Category and Rating (as per ORAF)</b> | <b>Focus of Bank support to implementation</b>  | <b>Skills required for efficient support</b>   | <b>Fiduciary inputs</b>   |
|---|---|--|---|
| <b>Project Stakeholder Risks [Moderate]</b>   | <p>Implementation support teams will communicate regularly with both the Tanzania Mainland and Tanzania Zanzibar implementing agencies.</p> <p>Implementation support teams will interact with representatives of similar rice production and market support projects.</p> <p>Strengthen monitoring and evaluation systems to include assessment of farmer satisfaction.</p>  | <p>Full implementation support team needs good interaction with Mainland and Zanzibar officials; and agencies implementing related projects.</p> | <p>FMS, PS, Safeguard specialists participate in launch workshops, field missions.</p>                                      |
| <b>Implementing Agency Risks [High]</b>       | <p>Facilitate establishment of management information system by two lead Ministries to track project implementation, budgets, procurements, results.</p> <p>Procurement. Implementation support will include: (a) providing training to the implementation agency staff; (b) reviewing procurement documents and providing timely feedback; (c) providing detailed guidance on the Bank’s Procurement Guidelines; (d) monitoring procurement progress against the detailed Procurement Plan; and (e) conducting procurement post review assessments at least once a year.</p> <p>Financial Management. Implementation support will include: (a) providing training to the implementation agency staff; (b) assessing the Project’s financial management system, including but not limited to, accounting, reporting and internal controls; (c) reviewing the project’s financial management reports on a regular basis; and (d) reviewing the annual audit reports and implementation of its recommendations.</p> | <p>Implementation support team</p> <p>Financial Management</p> <p>Procurement</p> <p>Safeguards</p> <p>Monitoring</p>                            | <p>FMS, PS, Safeguard specialist to participate at launch workshop; regular supervision mission including field visits.</p> |
| <b>Design Risk [Substantial]</b>              | <p>The implementation support team will closely track the implementation of the ‘professional management for rice irrigation schemes’ mandated under the national Big Results Now initiative.</p> <p>The implementation support team will encourage annual discussions between public and private sector seed multiplication and sales agencies to better define and strengthen this public-private partnership.</p> <p>Regularly track implementation and graduation from input subsidy scheme.</p>  | <p>Irrigation expert</p> <p>Seed systems development expert</p> <p>Agronomist/input Subsidy expert</p> <p>Implementation support team</p>        | <p>Track status of budget flows, procurement progress</p>   |

| <b>Risk Category and Rating (as per ORAF)</b>                    | <b>Focus of Bank support to implementation</b>   | <b>Skills required for efficient support</b>                               | <b>Fiduciary inputs</b> |
|--|--|--|-------------------------|
|  | Review and adjust implementation manuals as needed.  |  |                         |
| <b>Social &amp; Environmental Risk [Moderate]</b>                | Monitoring of the implementation of the ESMF, PMP and RAP to assure these are effectively applied.<br>Tracking of benefit flows to women farmers.  | Environmental Safeguards Specialist<br>Social Safeguards Specialist        | n.a.                    |
| <b>Program &amp; Donor Risk [Low]</b>                            | Encouraging cooperation and lessons drawing from multiple project and program initiatives in the rice sub-sector ranging from production to marketing support. The implementation support team will also monitor rice related trade policies that may affect rice prices and the returns to building domestic production and trade capabilities. | Implementation support team  | n.a.                    |
| <b>Delivery Monitoring and Sustainability Risk [Substantial]</b> | Assuring that implementing agents and farmers both understand that the input subsidy is temporary.<br>Regularly assess factors influencing incentives to invest in new technologies and the returns to investment.   | Implementation support team<br>Monitoring and Impact Evaluation Specialist | n.a.                    |

7. The requirements for Implementation Support will evolve over the life of the project. The following table highlights some of the changes in focus expected.

| <b>Time</b>         | <b>Points of focus for implementation support</b>  |
|---------------------|--|
| First twelve months | <ul style="list-style-type: none"> <li>• Project start up workshops</li> <li>• Establishment of steering committees</li> <li>• Confirmation of implementation agreements with collaborating agencies (e.g. PMO-RALG, ASA, KATRIN, TOSCI)</li> <li>• Establishment of coordinating mechanism with other projects in the rice sector</li> <li>• Design of irrigation schemes and completion of associated RAPs and EIAs</li> <li>• Design of warehouse infrastructure and operational strategies</li> <li>• Hiring of professional scheme managers</li> <li>• Design and implementation of baseline monitoring studies</li> <li>• Design and implementation of the input subsidy scheme</li> <li>• Establishment and operationalization of management information system</li> <li>• Procurement of goods and services</li> </ul> |
| 13-60 months        | <ul style="list-style-type: none"> <li>• Implementation and phase out of subsidy schemes</li> <li>• Clarification of roles of public and private sector in seed production and sale</li> <li>• Strength of water user associations and sustainability of irrigation investments</li> <li>• Strength of marketing arrangements</li> <li>• Consistency and quality of safeguards implementation</li> <li>• Procurement tracking and management</li> <li>• Financial management</li> <li>• Review of annual work plans and budgets</li> </ul>   |

## II. Skill Mix

| Skills Needed                        | Number of Staff Weeks | Number of Trips           | Comments             |
|--------------------------------------|-----------------------|---------------------------|----------------------|
| Task Team Leader                     | 14 SWs annually       | Two per year              | DC-based             |
| Agronomist/Seed systems specialist   | 4 SWs annually        | 2 per year                | Consultant           |
| Irrigation systems specialist        | 4 SWs annually        | 2 per year                | DC-based             |
| Grain marketing specialist           | 3 SWs annually        | Field trips as required   | Consultant           |
| Social Specialist                    | 3 SWs annually        | Fields trips as required. | Country office based |
| Environment Specialist               | 3 SWs annually        | Fields trips as required. | Country office based |
| Procurement Specialist               | 3 SWs annually        | Two per year              | Country office based |
| Financial Management Specialist      | 3 SWs annually        | Two per year              | Country office based |
| Monitoring and Evaluation Specialist | 3 SWs annually        | Field trips as required   | Consultant           |

## III. Partners

| Name            | Institution/Country | Role   |
|-----------------|---------------------|--|
| Program officer | USAID               | Sharing of information on irrigation and rice support programs |
| Program officer | JICA                | Sharing of information on irrigation and rice support programs |

**Annex 6. Project Economic and Financial Analysis**  
**TANZANIA: Expanding Rice Production Project (P144497)**

**I. Introduction and Overview of the Analysis**

1. An economic and financial analysis of the Project was undertaken in order to assess and answer three main questions related to the proposed project design and expected outcome:
  - *What is the Project's expected development impact?* A standard cost-benefit analysis of irrigated rice schemes with varying technology improvements is used to assess this impact.
  - *Is public funding needed and what levels of financing are appropriate?* This part of the analysis identifies the specific market failures preventing desirable levels of private investments in agriculture, how these market failures would be addressed by the project, and what level of public interventions are needed.
  - *What is the World Bank's value added in the Project?* This part of the analysis examines the value added derived from the Bank experiences and the commitment of World Bank staff time and implementation support for this project.

**II. The Project's Expected Development Impact**

*Project Benefits*

2. The direct benefits expected from the Project include: increased production, improved productivity, and improved farm-gate prices associated with improved marketing arrangements. This combination of benefits will contribute to increased rural incomes and improved food security.
3. These benefits will primarily result from: (a) adoption of new technology packages (especially improved seed, fertilizer, water management and weed control) which lead to increased production and productivity and (b) improved irrigation systems. The irrigation gains will largely be derived from shifting farmers from informal to formal irrigation systems, rehabilitating or strengthening of formal irrigation infrastructure, and the expansion of the number of farmers cropping for two seasons per year. In the Morogoro Region additional gains will be achieved through (c) the establishment of grain warehouses allowing storage of grain for later sale and facilitating bulk sales of paddy. These marketing improvements will increase farm-gate prices for paddy. Increased output, income, and employment in the targeted zones will result in increased demand for goods and services, offering additional income and employment effects, and increased Government tax revenues.
4. Major institutional benefits expected from the project are: (a) strengthening of seed systems including quality control and responsiveness to farmer demand; (b) improved links between research, extension and farmer groups in evaluating new varieties and crop management technologies; (c) the testing on the mainland of improved management arrangements for targeted irrigation schemes; and (d) improved marketing arrangements for crop storage and competitive sale. The project will also test proposed arrangements for promoting the successful graduation of farmers from input subsidy programs.

5. The social benefits expected from the Project result from its focus on food security with complementary gains in rural poverty reduction. Technical support backing the introduction of new varieties and crop management practices will be biased in favor of women and poorer farmers. This accounts for the greater difficulty in encouraging experimentation with new technology among this relatively more risk averse farm group. This will improve food supplies and food security amongst these poorer households.

*Financial and Economic Analysis*

6. The economic analysis has produced a Net Present Value (NPV) of US\$12.1 million at a discount rate of 12 percent, and an Economic Internal Rate of Return (EIRR) of 35 percent. The largest share of benefits is obtained on the Mainland given the larger number of farmers assisted and the gains accruing from the warehousing scheme. However, rate of return is marginally higher in Zanzibar given the expected higher yields derived on smaller plots and the higher current farm-gate prices. This does not include the indirect benefits associated with spillover gains to a broader range of producers, consumers and marketing agents. The Project is expected to highlight the gains possible in many parts of the country through the combination of improved irrigation, better crop management and strengthened marketing systems. Input markets will gain from improved demand for seed, fertilizer and herbicides, and product markets are expected to become more competitive.

**Table 1. Economic Analysis Summary**

| <b>Sub-project</b> | <b>Net Present Value</b> | <b>Economic Internal Rate of Return</b> |
|--------------------|--------------------------|---|
| Mainland           | US\$11.6 million         | 45.3 percent                            |
| Zanzibar           | US\$0.5 million          | 15.0 percent                            |
| Total              | US\$12.1million          | 35.0 percent                            |

*Cost-Benefit Analysis*

7. The analysis for the Morogoro Region evaluates productivity gains associated with the adoption of improved irrigation systems and gains resulting from the adoption of improved seed, fertilizer, better weed control and better water management in a technology package broadly characterized as SRI. The gains represent average gains associated with the adoption of the main components of this package. It is recognized that farmers may not adopt all components equally. The analysis also measures the expected gains resulting from the construction of grain warehouses that would allow farmers to sell paddy in bulk and later in the season when prices tend to rise. Table 2 summarizes the main elements of the intervention packages under consideration.

**Table 2. Summary of crop models for Morogoro (1.0 ha)**

|   | Baseline 1<br>Informal<br>irrigation              | Baseline 2<br>Formal irrigation<br>(to be improved)                        | New formal<br>irrigation<br>infrastructure and<br>SRI        | New formal irrigation<br>infrastructure, SRI and<br>warehouse                 |
|---|---|--|--|---|
| Crop package                                    | Recycled<br>traditional<br>seed; no<br>fertilizer | Recycled<br>traditional seed;<br>No fertilizer;<br>better water<br>control | Improved seed;<br>fertilizer; herbicide,<br>water management | Improved seed;<br>fertilizer; herbicide,<br>water management and<br>warehouse |
| Grain yield<br>(t/ha)                           | 1.2   | 1.8  | 4.0  | 4.0   |
| Production<br>costs (Tsh<br>without<br>subsidy) | 330,000   | 420,500  | 861,334  | 861,334   |
| Grain price<br>(Tsh/100 kg)                     | 35,000  | 35,000   | 35,000   | 46,550  |
| Gross revenue                                   | 420,000   | 630,000  | 1,400,000  | 1,862,000   |

8. The analysis for Zanzibar similarly evaluates productivity gains associated with the adoption of improved irrigation systems and gains resulting from the adoption of improved seed, fertilizer, better weed control and better water management in the SRI package of technologies. Table 3 summarizes the main elements of the intervention packages under consideration. The average yield gains are higher than those for the mainland, because farmers are operating on much smaller plots averaging about 0.1 hectare, allowing for more intensive application of the technology package. The background study also revealed a substantially higher average rural grain price for paddy in Zanzibar – reflecting the fact that virtually all of this grain is consumed by the producing household.

**Table 3. Summary of crop models for Zanzibar (1.0 ha)**

|   | Baseline 1<br>Informal irrigation           | Baseline 2<br>Formal irrigation (to be<br>improved)               | New formal irrigation<br>infrastructure and SRI           |
|---|---|---|---|
| Crop package                              | Recycled traditional<br>seed; no fertilizer | Recycled traditional seed; No<br>fertilizer; better water control | Improved seed; fertilizer;<br>herbicide, water management |
| Grain yield (t/ha)                        | 1.2   | 2.0   | 6.0   |
| Production costs (Tsh<br>without subsidy) | 330,000                                     | 352,000   | 811,500   |
| Grain price (Tsh/100<br>kg)               | 60,000                                      | 60,000  | 60,000  |
| Gross revenue                             | 390,000                                     | 1,200,000   | 1,620,000   |

9. The analysis assumes that farmers are shifting from old recycled seed to improved seed with preferred traits as selected from the crop demonstration trials. Each participating farmer will

receive a 50 percent subsidy on her seed costs for three years. Thereafter, farmers are expected to continue to purchase improved seed each year at full market value. In practice, however, a significant share of these farmers are expected to continue to use seed of improved varieties obtained from their previous harvest – a practice made possible given that rice is essentially self-pollinated. Therefore, the costs of continuing to use improved seed are over-estimated.

10. The SRI package of technologies has been well proven to offer substantial gains in yields and reductions in water use in Tanzania. However, questions remain about the willingness of most farmers to adopt the more complicated management practice of herbicide use and stricter, reduced water allocations to the crop. Nonetheless, evidence also exists that substantial yield gains are being derived from the adoption of even parts of the SRI technology package. For example, smallholder farmers receiving technical assistance from the Kilombero Plantations Ltd are said to be doubling their yields (to over 4 tons per hectare) simply by adopting improved seed, and wider plant spacing. Farmers will be given the flexibility to adopt SRI in part, or in whole. The financial and economic analysis is based on average assumed gains in productivity.

11. In Morogoro, approximately 17 percent of all farmers on the irrigation schemes being rehabilitated are expected to gain access to an additional second season crop. In Zanzibar, 72 percent of farmers on these schemes are expected to gain this advantage.

12. The grain prices broadly reflect the post-harvest prices prevailing in local farm-gate markets for paddy in Morogoro (Kilombero) and Zanzibar. Farm-gate prices are much lower in Morogoro, reflecting the fact that the majority of this rice is sold, and there are high margins between paddy prices on the farm, and the prices for processed rice on the retail market. The warehousing operations are expected to reduce this marketing margin, thus raising farm-gate prices for paddy. The higher farm prices for paddy in Zanzibar reflect the fact that virtually all rice is consumed in the village and there are strong preferences for locally produced aromatic varieties. The margins between the price of paddy and the price of local rice are much lower than on the Mainland.

13. The cash flow is calculated over a 20 year period starting from the 2014/15 season. All prices are expressed in constant prices of July 2014, and the foreign exchange rate is fixed. The prices of seed and fertilizer are drawn from the costs prevailing in the Tanzania Mainland and the Tanzania Zanzibar markets during the 2013/14 cropping season. No shadow prices are assumed. Transfer prices such as tax, duty or subsidy interest are not applied, and were excluded from estimating economic benefits and costs. Financial costs equal economic costs. The Tanzanian economy is largely open and competitive. Therefore the analysis assumes that prices in the economy reflect the forces of market supply and demand.

### *Sensitivity Analysis*

14. Paddy prices have been variable on the Tanzania Mainland over the past two years. This partly reflects the decline in international prices in late 2013 to US\$445 per ton<sup>15</sup>. If shipping costs and the East Africa Economic Community import tax of 35 percent<sup>16</sup> are added to this value, the price rises to around US\$709 per ton. Assuming a 65 percent milling offtake, this is equivalent to a paddy price of US\$460 per ton or TZS763 per kg. If imports are allowed duty free, which happened briefly in early 2013, the import price could drop to around Tsh 566 per kg.

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<sup>15</sup> International price for Thai five percent broken rice in December 2013.

<sup>16</sup> This is the agreed level for the East African Community tariff in August 2014.



15. A sensitivity analysis was run to account for a further decline in farm-gate prices of 10 percent, and of 35 percent for Morogoro and Zanzibar (Table 4). The latter could result from the elimination of the import duty, though this currently seems unlikely given that the duty level has recently been confirmed in negotiations of the East Africa Community, and the Government is concerned to promote continuing expansion of rice production. The returns on the investment would sharply decline, but remain profitable in both locations.

**Table 4. Sensitivity Analysis**

|                                       | NPV             | IRR  |
|---------------------------------------|-----------------|------|
| <b>Morogoro</b>                       |                 |      |
| Farm-gate price: 10 percent decline   | US\$10.1million | 35.8 |
| Farm-gate price: 35 percent decline   | US\$6.4 million | 22.5 |
| Productivity gain: 20 percent decline | US\$6.6 million | 23.0 |
| Productivity gain: 40 percent decline | US\$1.6 million | 13.9 |
| <b>Zanzibar</b>                       |                 |      |
| Farm-gate price: 10 percent decline   | US\$1.9 million | 34.4 |
| Farm-gate price: 35 percent decline   | US\$0.3 million | 13.4 |
| Productivity gain: 20 percent decline | US\$1.3 million | 21.5 |
| Productivity gain: 40 percent decline | US\$0.5 million | 15.0 |

16. The project is also sensitive to adjustments in the levels of productivity gains achieved. If these gains dropped 40 percent, the project will still likely be profitable. However, returns on investments in fertilizer, in particular, will sharply decline. Farmers achieving better nutrient use efficiency may continue to purchase this input, but farmers with lower use efficiency may end their purchases. As with the preceding National Agricultural Input Voucher Scheme, farmers need strong extension assistance to derive the largest possible yield gains from the limited amounts of fertilizer they are able to apply.

### **III. Justification of Public Funding and Levels of Financial Support**

17. This Project focuses on correcting two major market failures faced by smallholder farmers.
- a. Speeding the adoption of improved rice varieties – rice is essentially a self-pollinated crop meaning that farmers can readily obtain their seed from the previous season’s harvest. As a result, there is no private participation in the development of new rice varieties and private seed companies have little incentive to multiply seed for sale. Three companies have pursued limited seed production in the pursuit of sales through national seed subsidy programs. But the sustainability of these investments remains open to question. The project correspondingly supports public sector efforts to speed the multiplication and distribution of new varieties, and encourages private companies to further test the commercial market by building supply chains that may be sustained after the proposed seed subsidy ends.
  - b. Rice markets are also characterized by large and variable differences between the prices of paddy at the farm-gate and processed rice in the consumer market, significant variability in rice prices and strong price seasonality. These problems result in part from the small volumes traded by large numbers of small brokers and retail traders. Prospects are

favorable for improving farm-gate prices through public sector support for strengthened market coordination based on improved storage, bulk sales and better market information. The project will encourage irrigation groups to pursue improved prices through warehouse operations allowing bulk and seasonal sale or the coordination of grain deliveries on contract with processors. Warehouse sales may also be linked with Government efforts to establish a national commodity exchange. By the end of the project, these warehouses are expected to be fully self-sustaining.

18. Public funding is also needed to better characterize the relative demand for alternative rice varieties. More than thirteen new varieties have been released in Tanzania, but most farmers have not seen any of these, and those few with access to improved seed have commonly only seen one or two new varieties. There is little information available to justify decisions regarding what varieties to multiply and market. Investments in developing and releasing new varieties that are never multiplied and disseminated to farmers offer negative returns. The Project resolves this constraint by methodically introducing the full range of available varieties to farmers, tracking producer and consumer preferences, and then promoting more rapid multiplication and dissemination of those varieties preferred in the market. This information will also help target future rice breeding programs, and should be beneficial well beyond the regions targeted by this project.

19. Public funding is also needed to encourage the broader testing and adoption of improved crop management technologies such as SRI. This technology is not linked with the sale of any particular input, but rather offers management strategies leading to the reduction of seed, water and fertilizer demand. Correspondingly, the private sector is unlikely to promote these technologies.

20. The SRI package is founded on a set of techniques for the improved management of irrigation water. These are difficult for any individual farmer to adopt independent of neighbors within an irrigation scheme where water is commonly managed as a group. Public sector support can facilitate group coordination, and strengthen the joint management of available water resources. The ERPP encourages this group management by supporting the public effort under the Big Results Now initiative to hire professional managers to provide advisory support to irrigator organizations to improve water and crop management, as well as grain marketing.

21. The level of public sector funds is congruent with an intention to shift the orientation of private investment behavior by farmers, input suppliers and grain traders. The input subsidy is temporary, targeting a graduation strategy toward fully commercial input purchases after three years of assistance. The support for the seed system tests the relative demand for alternative rice varieties and encourages private seed companies to reevaluate this market. It is anticipated that commercial companies will gain an incentive to multiply and market varieties proven to be highly demanded under the ERPP – expanding sales from the Morogoro Region to other regions of the country. The project also tests multiple grain marketing strategies with the expectation that the more profitable strategies will be sustained as commercial undertakings by the project supported villages.

#### **IV. World Bank's Value Added in the Project**

22. The World Bank's value added under this Project will be in three main areas: (a) promoting knowledge sharing; (b) encouraging a more results oriented investment program, and (c) optimizing the use of funds.

23. *Promoting knowledge sharing:* The Bank has a growing experience in supporting input subsidy programs and related efforts to speed the adoption of improved cropping technologies. This knowledge has already been brought to bear in the project design. This support will be further expanded during implementation support missions. The key challenges are to strengthen understanding of the ways that public funding can share risks in testing new technologies and encouraging their adoption, as opposed to operating as an income transfer to reduce the cost of agricultural inputs. This distinction lies at the heart of the concept of graduation from the input subsidy.

24. The Bank can also facilitate a more methodical sharing of cross-country experiences with SRI. Literature suggests there are many different types of SRI with varying technology packages. Tanzanian researchers, extensionists and farmers can gain from a comparison of these experiences. The project will support cross-country visits as well as the sharing of data on the results of SRI promotion in neighboring countries.

25. *Encouraging a result oriented investment program:* The Bank commitment to the regular measurement of progress in relation to a well-defined results framework reinforces the results orientation of this investment. This is backed by the regular review of results achieved during each implementation support mission and the evaluation of factors that may speed or undermine the achievement of the expected results. This coincides with the Government's stronger commitment to pursue accountability for targeted results under the national Big Results Now initiative.

26. *Optimizing the use of funds:* The Bank's support assures a continuing commitment to build Government management systems for its development investments. These include basic fiduciary management under laid by the Bank's backstop training and advisory support for financial management and procurement, as well as the strengthening of monitoring and evaluation systems essential to back the Government's commitment to manage for results.

## **Annex 7. Rice Projects in Tanzania**

### **TANZANIA: Expanding Rice Production Project (P144497)**

1. The Project builds on a foundation laid by several other recent and existing projects supporting the expansion of rice production in the agricultural sector. These have encompassed support for the expansion of irrigation systems as well as capacity building in rice crop management and marketing. The ASDP invested in the expansion of irrigation systems throughout the country (except Zanzibar) with its largest support for the rehabilitation and construction of formal irrigation infrastructure. This contributed more than 100,000 ha of additional irrigation to the country, bringing the total area formally covered to over 400,000 ha against a national objective of one million hectares. While this program has come to an end, the next phase of investment broadly classified as ASDP2, encompasses continuing support for the rehabilitation and completion of irrigation schemes initiated under the first project phase, as well as some further expansion. The infrastructure investments proposed under the ERPP are complementary to this broader set of investments. There is no overlap in the schemes being supported.
2. Many lessons were derived from the ASDP including the need for better training on the mechanics of irrigation development. Correspondingly, Japan International Cooperation Agency (JICA) supported the preparation of a comprehensive set of guidelines on irrigation planning, supervision, operation and maintenance. These are being applied in the proposed Project. In complement JICA helped the Government strengthen its rice production training programs. Farmers are expected to benefit under the ERPP through the related capacity building activities of various agricultural training institutes in both the Mainland and Zanzibar.
3. The ERPP will also make use of technologies developed under the auspices of the World Bank funded Eastern Africa Agricultural Productivity Program (EAAPP). These include new seed varieties as well as improved crop management technologies related to SRI.
4. The next phase of the ASDP includes a major commitment of support for expanding rice production under the Big Results Now initiative. This includes support for the rehabilitation of irrigation infrastructure, as well as for improving crop management and marketing. The ERPP commitments are highly complementary to these proposed ASDP commitments, in effect extending the coverage of these initiatives to additional regions of the country (Morogoro and Zanzibar).
5. The Coalition for African Rice Development (CARD) program also operates in Tanzania with a broadly defined national plan encompassing extension support, mechanization, the development of post-harvest technologies, market information and the strengthening of savings and credit systems. The CARD has recently concentrated on a pilot initiative for improving rice seed.
6. In addition, there are several value chain projects implemented outside of Government auspices (off budget) that deal with rice, commonly in addition to other food grains. These generally provide farmers with training and capacity building on market information and marketing options. The Tanzania Staples Value Chain Project (NAFAKA) in particular has promoted the strengthening of farmer associations, and testing of innovative marketing ideas. Some of these ideas have already been integrated into the new Big Results Now initiative.

7. The MAFC has proposed the establishment of a single Steering Committee that will monitor the implementation of all of these projects, including those implemented through private contractors and non-governmental organizations. This will encourage a better sharing of lessons across these diverse projects and ultimately more joint investment.

8. The ERPP is viewed by the Government as a net addition to this matrix of efforts. The large number of different initiatives represents both a challenge and an opportunity for the Project. Representatives from these various projects will be invited to the launch workshop of the ERPP in order to assure they are well aware of the project's objectives and plan. They will be requested to identify key lessons derived from their own projects that may improve the success of the ERPP workplans. These complementarities will be annually reviewed in the ERPP Steering Committee.

| Donor      | Program Name   | Interventions  | Region covered                              | Timeframe   | Budget (US\$ M)     |
|------------|--|--|---|-------------|---------------------|
| JICA       | Small Scale Irrigation Development Project   | Construction and rehabilitation of irrigation facilities | Tanzania Mainland                           | 2013-2017   | 3.443M Japanese Yen |
| JICA       | Project for Irrigation Human Resource Development by Strengthening the Capacity of Arusha Technical College                          | Training and capacity building                           | Arusha region                               | 2014-2017   |                     |
| JICA       | Project for Supporting Rice Industry Development (TANRICE2)  | Agricultural productivity                                | Tanzania Mainland/ Zanzibar                 | 2012- 2019  |                     |
| JICA       | Project for Capacity Development for the Promotion of Irrigation Scheme Development Under the District Agricultural Development Plan | Training and capacity building                           | Tanzania Mainland (working with 7 ZITUSs)   | 2010 - 2014 |                     |
| WB         | EAAPP  | Agric. Productivity                                      | National                                    | 2009-2015   | 30                  |
| SDC        | Rural Livelihood Development Program   | Postharvest/value chain development                      | Central Corridor regions                    | 2012-2016   | 10                  |
| USAID      | NAFAKA- Food grain value chain   | Agricultural productivity                                | Kilombero and Mvomero district and Zanzibar | 2011-2016   | 30                  |
| USAID      | Tuboreshe chakula  | Postharvest/value chain development                      | National                                    | 2011-2015   | 22                  |
| DFID       | Coastal Rural Support Programme (CRSP)   | Agricultural productivity                                | Mtwara and Lindi                            | 2010-2014   | 10                  |
| AGRA       | SHP  | Research and extension                                   | Tanzania                                    | 2012 - 2015 | 0.7                 |
| AGRA       | Markets Investments  | Infrastructure   | Ruvuma, Iringa and Morogoro                 | 2012 - 2015 | 0.5                 |
| CARD       | Pilot Initiative for Improved Rice Seed Sector   | Policy reforms and extension                             | National                                    |             |                     |
| Korea EXIM | Zanzibar Irrigation Infrastructure Project   | Expansion of irrigation area                             | Zanzibar                                    | 2014-2019   | 50                  |

**Annex 8. Rice Policy Environment in East Africa**  
**TANZANIA: Expanding Rice Production Project (P144497)**

1. Rice is the second most important staple food crop in East Africa, after maize. Rice consumption in East Africa currently stands at around 1.8 million ton/year and is expected to continue increasing, driven by an expanding population and changing tastes of a burgeoning middle class. Annual rice production is estimated at 1.25 million tons and is growing steadily in most countries in the region.
2. However, even with the increasing production, demand still outstrips supply and all East African Community (EAC) countries import rice to supplement local production. Kenya imports about 300,000 tons; Uganda imports 65,000 tons (but exports half of this to Rwanda, DRC, and South Sudan), Rwanda imports 20,000 tons; and Tanzania, is almost self-sufficient but imports 140,000 tons.
3. Rice is increasingly becoming a large part of the region's food bill and is important to the region's macro-economic and political stability. The Governments of the EAC Partner States recognize the importance of rice and consequently, the sub-sector receives a substantially higher proportion of public support going to agriculture from both donors and Governments. This support is in the form of direct investment (especially in irrigation infrastructure) and through tariffs designed to protect local rice producers against the competition with imports.
4. Under the EAC Customs Union (CU) classification, rice is designated a sensitive product and its Common External Tariff (CET) rate is substantially higher than the 25 percent maximum rate for non-sensitive goods. The CET for rice is a compound tariff of ad valorem rate (75 percent) or US\$200/ton, whichever is higher. While these are maximum rates, actual applied tariffs have been lower and always vary considerably due to the flexibility provision in the CU Protocol, notably the system of "duty remissions" that allows Governments to reduce or eliminate tariffs if country specific circumstances (e.g. food deficits, high local food prices) so dictate.
5. As a result, the CET has proven difficult to implement effectively due to several exemptions e.g. to Kenya because of its desire to provide to Pakistan better market access to its rice market, in return for better access for Kenyan tea to the Pakistani market, and to Tanzania which negotiated a 12.5 percent rate for Zanzibar given the importance of rice to the island's food security and the relatively small number of rice farmers on the Island. In the most recent meeting of the Council of Ministers, agreement was reached to increase the applied tariff from 25 to 35 percent in the face of protests from farmers over the market impact of rice imports that were cheaper. However, Uganda declined to commit to the new rate, preferring to maintain a 75 percent duty in order to promote domestic rice production. In the case of Tanzania, this broad agreement meant that the Government of Tanzania allowed tariff waivers introduced in 2013 (that were a reaction to skyrocketing prices) to lapse. Rwanda decided to implement a 45 percent tariff rate until June 2015. For its part Kenya, while applying the 35 percent tariff, raised the minimum tariff per ton to US\$200 compared to US\$100 per ton in 2013.
6. While the CET has helped balance the higher production costs of rice in the region and encouraged increased production (mainly through area expansion), it has also had some unintended consequences. The CET for example is implicated among the causes of the rising domestic rice prices together with the attendant reduction in per capita consumption of rice in the region. It has also had a negative impact on rice value chains and the interest of the private sector, as well as the

evolution of well-functioning regional markets. The inconsistent tariff regimes are also believed to cause trade distortions. There is the real concern for example that the reduction of CET for rice in Tanzania and Kenya have greatly benefitted Kenyan and Tanzanian rice traders as they could import cheaper rice from non-EAC rice countries and supply to other EAC markets which do not have similar rates of tariff reduction.