
President's memorandum
Proposed additional financing to
Republic of Malawi
Sustainable Agricultural Production Programme -
Phase II

Project ID: 2000004511

Document: EB 2025/LOT/P.8

Date: 30 October 2025

Distribution: Public

Original: English

FOR: APPROVAL

Action: The Executive Board is invited to approve the recommendation for the proposed additional financing contained in paragraph 47.

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Contents

Financing summary	ii
I. Background and programme description	1
A. Background	1
B. Original programme description	1
II. Rationale for additional financing	1
A. Rationale	1
B. Description of geographical area and target groups	2
C. Components, outcomes and activities	2
D. Costs, benefits and financing	3
III. Risk management	9
A. Risks and mitigation measures	9
B. Environment and social category	9
C. Climate risk classification	9
IV. Implementation	9
A. Compliance with IFAD policies	9
B. Organizational framework	9
C. Monitoring and evaluation, learning, knowledge management and strategic communication	10
D. Proposed amendments to the financing agreement	11
V. Legal instruments and authority	11
VI. Recommendation	11

Appendices

- I. Updated logical framework incorporating the additional financing
- II. Updated summary of the economic and financial analysis

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Financing summary

Initiating institution:	IFAD
Borrower/recipient:	Republic of Malawi
Executing agency:	Ministry of Agriculture
Total programme cost:	US\$53.34 million
Amount of original IFAD financing (Debt Sustainability Framework [DSF]):	US\$18.05 million
Amount of additional IFAD financing (DSF)	US\$10.0 million
Cofinanciers:	European Union Investing in Livelihood Resilience and Soil Health in African, Caribbean and Pacific (ACP) Countries (EU-ILSA); Pass-on Programme; Adaptation Fund
Amount of original cofinancing:	EU-ILSA: US\$2.60 million Pass-on Programme: US\$3.04 million (original financing); Financing gap: US\$15.6 million
Terms of original cofinancing:	Grants
Amount of additional cofinancing:	EU-ILSA: US\$1.040 million Adaptation Fund: US\$9.22 million
Terms of additional cofinancing:	Grants
Contribution of borrower/recipient:	US\$5.69 million (reduced from US\$8.00 million at design)
Contribution of beneficiaries:	US\$3.69 million (reduced from US\$6.00 million at design)
Amount of original IFAD climate finance:	US\$7.43 million
Amount of additional IFAD climate finance:	US\$9.27 million
Cooperating institution:	Directly supervised by IFAD

I. Background and programme description

A. Background

1. The Sustainable Agricultural Production Programme – Phase II (SAPP II) was approved by IFAD's Executive Board on 12 December 2023, entered into force on 13 March 2024, with the first disbursement made on 19 July 2024.¹ With an implementation period of seven years, the programme completion date is 31 March 2030, and the programme closing date is 30 September 2030.
2. The initial programme financing amounts to US\$53.34 million, financed as follows: (i) IFAD grant of US\$18.1 million; (ii) Government of Malawi counterpart contribution of US\$8.0 million; (iii) European Union Investing in Livelihood Resilience and Soil Health in African, Caribbean and Pacific (ACP) Countries (EU-ILSA) grant of US\$2.60 million; (iv) beneficiary and private sector contribution of US\$6.0 million; and (v) Pass-on Programme of US\$3.04 million. SAPP II was designed with a financing gap of US\$15.6 million.
3. On 5 August 2025, the Government of Malawi issued a formal request for additional financing of US\$10 million from the Thirteenth Replenishment of IFAD's Resources (IFAD13), to cover the existing financing gap. The Government is requesting US\$10 million instead of US\$15.6 million owing to the technical approval of a US\$9.27 million grant from the Adaptation Fund, expected to be approved in 2026, which will provide parallel cofinancing for SAPP II activities under component 1.

B. Original programme description

4. SAPP II builds on the successful implementation of the original SAPP, which was completed in 2023. The overall goal of SAPP II is to sustainably increase the incomes and climate resilience of smallholder farmers through enhanced productivity, commercialization and institutional capacity strengthening. The programme aims to empower rural communities – particularly women, youth, women-headed households, and persons with disabilities – by promoting sustainable agricultural practices, improving market linkages and supporting inclusive value chains
5. SAPP II is structured around three core components: (i) increasing smallholder productivity and climate resilience (26 per cent of the budget); (ii) promoting the commercialization of smallholder farming systems (59 per cent); and (iii) strengthening institutional capacity and knowledge management systems (8 per cent). The programme is expected to deliver significant outcomes, including increased household incomes, improved dietary diversity, and greater adoption of environmentally sustainable technologies. These will be achieved through investments made by IFAD, the Government of Malawi, the European Union, the Adaptation Fund and the additional financing.

II. Rationale for additional financing

A. Rationale

6. SAPP II was designed and approved with a financing gap of US\$15.6 million, with the original programme design report indicating the possibility of filling the gap with IFAD13 funds, should they be made available. The Government requests an allocation of US\$10 million from IFAD13 resources under this additional financing, with the remainder of the gap being filled by a combination of reallocated IFAD12 funds from the original budget and an Adaptation Fund grant of US\$9.22 million, entitled the Smallholder Climate Resilience Project (SCRP), which is expected to receive final approval by March 2026.
7. SCRП will provide parallel financing for the implementation of component 1 (as shown in table 2), with the IFAD12 funds originally programmed for these activities reallocated to finance part of the financing gap. SCRП interventions are focused on climate-smart agriculture and environmental management, which align well with

¹ See EB 2023/140/R.3/Rev.1.

component 1, which seeks to promote increased smallholder productivity and climate resilience.

8. Specifically, relevant training and consultancies in support of climate-smart agriculture have been reallocated from the original financing to SCRP. The overall reallocation approach has freed up IFAD12 resources to help to fill the financing gap under component 2.3, the Farmer Challenge Fund. Some IFAD12 resources have been retained under component 1, to allow for a smooth start-up of the programme and to anticipate any potential delays in accessing funds from the Adaptation Fund.
9. Hence, the blending of climate funds under SCRP with SAPP II has enabled the reallocation of funds in an efficient manner, tapping into climate finance where appropriate, while IFAD12 and IFAD13 resources are mostly earmarked for component 2, without affecting the development objectives of the programme.
10. Along with this rationale, SAPP II meets the following necessary criteria:
 - (i) The additional financing objectives, activities, approaches and components remain consistent with the original programme design;
 - (ii) Malawi is on the list of countries eligible for core funding under IFAD13, with an allocation of US\$38 million;
 - (iii) The activities to be financed comply with all relevant IFAD policies at the time of the additional finance request, including Social, Environmental and Climate Assessment Procedures (SECAP), targeting policies and performance indicators;
 - (iv) The Government of Malawi has submitted a formal request for additional financing of US\$10 million.

Special aspects relating to IFAD's corporate mainstreaming priorities

11. In line with IFAD's mainstreaming commitments, the programme has been validated as:
 - ☒ Including climate finance
 - ☒ Gender-transformative
 - ☒ Nutrition-sensitive
 - ☒ Youth-sensitive
12. **Climate change** is expected to reduce the country's food supply, with major implications for the lives of the rural poor and for development progress across sectors. The most significant impacts include changes in the start, length and quality of the rainy season, and increased frequency and intensity of climate-related disasters – especially prolonged droughts and flooding, heavy downpours, accompanied by strong winds, and mudslides – which can also lead to flash floods.
13. **Gender.** Women in Malawi comprise 52 per cent of the population and 80 per cent of the labour force. However, gender productivity gaps in the agriculture sector remain high. These gaps are due to women's unequal access to productive inputs such as farm labour, land, and improved technology, as well as their lower participation in cash and export value chains.
14. **Youth.** Malawi is experiencing a rapid rise in the number of young people, with about two thirds of the population under 24 years of age and about 45 per cent under 15 years of age.

B. Description of geographical area and target groups

15. **Geographical hub approach.** SAPP II builds on the lessons and achievements of the first phase of SAPP. The goal of the programme is to contribute to wealth creation and improve food and nutrition security among the rural population of Malawi. The programme development objective is to commercialize agricultural

production and enhance the resilience and productivity of smallholder farming systems among rural men, women and youth in selected districts of Malawi by 2030.

16. The programme area comprises selected extension planning areas from four districts in Malawi, namely Lilongwe, Dowa, Balaka and Mzimba.

C. Components, outcomes and activities

17. The additional financing will be implemented within the same components as the original financing, filling the financing gap for the originally planned activities as follows:
18. **Component 1. Increasing smallholder productivity and climate resilience.** This component will focus on enhancing food- and market-focused production systems, protecting the productive natural resource base, and climate-proofing investments. Interventions will include the scaling up of good agricultural practices, adaptive research to improve climate resilience and address market access challenges, and pluralistic extension systems that include e-extension to build capacity for climate-smart, nutrition-sensitive production systems and gender-transformative approaches. Food-insecure households will receive support for the establishment of integrated homestead production and the livestock pass-on scheme, while nutrition education will be integrated into all programme delivery mechanisms, such as household approaches, farmers' organizations and farmer field schools. The livestock pass-on scheme will apply only in the original SAPP districts.
19. **Component 2. Promoting the commercialization of smallholder farming systems.** To fully integrate with the market system and other value chain actors, producers will receive support to align with the market; this will include strengthening farmers' organizations, increasing the access of producer groups to technologies and approaches for production, value addition and processing. The Malawi Bureau of Standards will be engaged as a critical partner for food safety standards, food handling, packaging and labelling. Farmers will be linked through multi-stakeholder platforms to improve value chain coordination. A Farmer Challenge Fund will be established and deployed to support farmer groups and other value chain actors to engage in production and post-production enterprises informed by business plans. Beyond the Farmer Challenge Fund, SAPP II will also work to connect farmers with financial service providers to ensure sustainability.
20. **Component 3. Strengthening institutional capacity and knowledge management systems.** SAPP II will support capacity-building activities to facilitate effective implementation at the national, district and community levels. SAPP II will support relevant strategies, including smallholder mechanization and contract farming. Specifically, in disaster risk management, activities will focus on building capacity for early warning systems, response, and disaster risk management through better coordination and climate risk assessment.
21. **Response to emergency and disaster component.** This component will enable the programme to safeguard the development goals of SAPP II and ensure a timely response in the event of disasters and other applicable emergencies or crisis situations.

A. Costs, benefits and financing

Programme costs

22. With the additional financing, the total programme cost of SAPP II will be retained at US\$53.34 million, including contingencies, with some reallocations between categories of the original IFAD funds to facilitate the integration of the Adaptation Fund financing and a re-estimation of the Government and beneficiary contributions. Table 1 below outlines the allocation of the additional financing by category, while table 2 presents the allocation of the additional financing by component and subcomponent. In addition to table 1, which outlines the allocation of the additional financing by category, and table 2, which presents the allocation

of the additional financing by component and subcomponent, the analysis is complemented by two further tables. Table 3 provides a consolidated overview of financing sources, showing the relative contributions of IFAD, the Adaptation Fund, the Government and beneficiaries, thereby highlighting the cofinancing structure of the programme. Table 4 provides the financing plan by expenditure category across all sources, offering a clear picture of how resources are distributed for implementation. Together, these tables demonstrate the alignment of additional financing resources with existing programme financing, ensuring transparency in the distribution of funds and the effective integration of additional financing into the overall programme structure.

23. All programme components are partially counted as climate finance. As per the multilateral development banks' methodologies for tracking climate change adaptation and mitigation finance, the total amount of IFAD climate finance for this additional financing proposal is estimated at US\$9.27 million.

Table 1a

Original and additional financing summary

(Thousands of United States dollars)

	<i>Original financing *</i>	<i>Additional financing</i>	<i>Total</i>
IFAD Debt Sustainability Framework (DSF) grant	18 050	10 000	28 050
European Union	2 600	1 040	3 640
Pass-on Programme	3 041	-	3 041
Adaptation Fund **	-	9 217	9 217
Beneficiaries	6 000	(2 307)	3 693
Recipient	8 000	(2 306)	5 694
Financing gap	15 611	(15 611)	-
Total	53 335		53 335

* See tables in document EB 2023/140/R.3/Rev.1 for a detailed breakdown.

** Expected to be approved in 2026.

Table 1b

Original and additional DSF allocation by expenditure category

(United States dollars)

<i>Category</i>	<i>Original IFAD DSF grant allocated</i>	<i>Additional IFAD DSF grant allocated</i>	<i>Percentage</i>
Works	178 070	-	100% net of taxes
Consultancies	2 661 400	539 410	100% net of taxes
Goods, services and inputs	3 891 660	2 700 000	100% net of taxes
Training and workshops	4 346 460	499 790	100% net of taxes
Farmer Challenge Fund	2 180 410	4 732 860	100% net of taxes
Recurrent costs	2 992 000	527 940	100%
Unallocated	1 800 000	1 000 000	
Total	18 050 000	10 000 000	

Table 2

Programme costs by component and subcomponent and financier

(Thousands of United States dollars)

Component/subcomponent	Original IFAD DSF grant		Additional IFAD DSF grant		Government		European Union		Adaptation Fund		Beneficiaries and private sector		Pass-on Programme		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
1. Increasing smallholder productivity and climate resilience																
Inclusive value chain and market analysis conducted	301	100	-	-	-	-	-	-	-	-	-	-	-	-	301	1
Enhanced capacity for climate-smart and nutrition-sensitive production systems	3 701	35	250	2	39	0.4	1 381	13	1 559	15	712	7	3 041	29	10 683	20
Sustainable management of productive resources (soil, land and water)	365	7	347	6	571	11	74	1	3 784	70	279	5	-	-	5 420	10
Subtotal	4 367	27	597	4	610	4	1 455	9	5 343	33	992	6	3 041	19	16 405	31
2. Promoting the commercialization of smallholder farming systems																
Strengthened farmer organizations	939	100	-	-	-	-	-	-	-	-	-	-	-	-	939	2
Market linkages promoted based on opportunities to unlock value	2 451	56	391	9	166	4	731	17	658	15	-	-	-	-	4 398	8
Farmer Challenge Fund	2 823	25	5 259	47	-	-	480	4	-	-	2 702	24	-	-	11 263	21
Subtotal	6 213	37	5 650	34	166	1	1 211	7	658	4	2 702	16	-	-	16 601	31
3. Strengthening institutional capacity and knowledge management systems																
Capacity of staff and partner institutions strengthened for SAPP II coordination, communication, knowledge management and monitoring and evaluation and SECAP	2 036	100	-	-	-	-	-	-	-	-	-	-	-	-	2 036	4
Institution-building of Government structures for better disaster risk management	228	9	167	7	-	-	-	-	2 066	84	-	-	-	-	2 460	5
Subtotal	2 263	50	167	4	-	-	-	-	2 066	46	-	-	-	-	4 496	8
4. Project management	5 207	41	587	5	4 918	38	974	8	1 149	9	-	-	-	-	12 834	24
5. Response to emergency and disaster	-	-	3 000	100	-	-	-	-	-	-	-	-	-	-	3 000	6
Total	18 050	34	10 000	19	5 694	11	3 640	7	9 217	17	3 693	7	3 041	6	53 336	100

Table 3

Original financing (IFAD grant reallocation): programme costs by expenditure category and financier

(Thousands of United States dollars)

		A	B	C	D	E	F	G	H
Category code	Expenditure category	Initial allocation	Disbursed amount	Percentage disbursed	Available balance	Restructured cost	Proposed new allocation (disbursed amount + restructured costs) F = B + E	Reallocation G = F - A	Category weight after proposed reallocation (%) = $H/\text{total amount} \times 100\%$
200003	Works	320 000	21 446	7	298 554	178 054	178 070	(141 930)	1
200008	Consultancies	3 510 000	613 892	17	2 896 108	2 661 398	2 661 400	(848 600)	15
200012	Grants and subsidies *	910 000	126 699	14	783 301	2 180 411	2 180 410	1 270 410	12
200013	Goods, services and inputs **	3 600 000	608 240	17	2 991 760	3 891 661	3 891 660	291 660	22
200016	Operating costs ***	2 770 000	586 037	21	2 183 963	2 992 015	2 992 000	222 000	17
200019	Training ****	5 140 000	1 476 865	29	3 663 135	4 346 460	4 346 460	(793 540)	24
250001	Advance account	-	1 843 863	N/A	(1 843 863)	-	-	-	0
290001	Unallocated	1 800 000	-	0	1 800 000	1 800 000	1 800 000	-	10
Total		18 050 000	5 277 042	29.24	12 772 958	18 050 000	18 050 000	-	100

* Farmer Challenge Fund.

** Includes equipment and materials.

*** Includes salaries, allowances and operating costs.

**** Includes workshops.

Table 4

Programme costs by component and programme year

(Thousands of United States dollars)

	2024	2025	2026	2027	2028	2029	2030	2031	Total
1. Increasing smallholder productivity and climate resilience									
Inclusive value chain and market analysis conducted	116	46	35	35	70	-	-	-	301
Enhanced capacity for climate-smart and nutrition-sensitive production systems	64	2 153	2 529	2 531	1 575	1 459	305	70	10 683
Sustainable management of productive resources (soil, land and water)	77	504	920	1 292	1 203	869	459	96	5 420
Subtotal	256	2 703	3 484	3 857	2 847	2 328	763	166	16 405
2. Promoting the commercialization of smallholder farming systems									
Strengthened farmer organizations	154	224	132	136	119	124	51	-	939
Market linkages promoted based on opportunities to unlock value	59	988	1 232	960	486	487	186	-	4 398
Farmer Challenge Fund	-	2 404	1 869	1 844	1 839	1 839	1 466	-	11 263
Subtotal	212	3 616	3 234	2 940	2 445	2 450	1 703	-	16 601
3. Strengthening institutional capacity and knowledge management systems									
Capacity of staff and partner institutions strengthened for SAPP II coordination, communication, knowledge management and monitoring and evaluation and SECAP	244	350	200	374	267	308	253	38	2 036
Institution-building of Government structures for better disaster risk management	-	212	575	662	415	289	198	110	2 460
Subtotal	244	562	775	1 037	682	596	451	148	4 496
4. Project management	838	1 561	1 874	1 998	1 693	1 689	1 689	1 493	12 834
5. Response to emergency and disaster	-	-	3 000	-	-	-	-	-	3 000
Total	1 551	8 442	12 367	9 832	7 668	7 063	4 606	1 807	53 336

Financing and cofinancing strategy and plan

24. The Government of Malawi and IFAD have pursued the design of the Smallholder Climate Resilience Project (SCRIP), which is expected to mobilize US\$9.2 million from the Adaptation Fund. The SCRIP concept note has been technically approved by the Adaptation Fund, and Board approval of the full design is expected in 2026. The approval of the anticipated IFAD13 funds and Adaptation Fund financing would enable IFAD to fully close the financing gap.

Disbursement

25. SAPP II disbursement procedures will be based on quarterly interim financial reports and the submission of withdrawal applications in the IFAD Client Portal. The Ministry of Agriculture will open a separate designated account in United States dollars at the Reserve Bank of Malawi for each financing instrument – for IFAD and each cofinancier – to avoid the commingling of funds. The programme will open an operations account in local currency for each instrument at a reputable commercial bank acceptable to IFAD. Funds from IFAD and other financiers will flow directly from their respective accounts to their respective SAPP II designated accounts on quarterly revolving fund requests. The Farmer Challenge Fund will follow IFAD's imprest disbursement method between the farmer groups and the programme management unit (PMU), whereby authorized budget-based allocation advances will be disbursed upfront and replenished continuously upon accounting for at least 60 per cent of funds spent. The Farmer Challenge Fund disbursements will be subject to frequent verifications during IFAD missions, and to both internal and annual external audit. The PMU will also maintain a separate local currency account to receive Government cash disbursements.

Summary of benefits and economic analysis

26. The overall costs for SAPP II have been estimated at US\$53.34 million, benefiting an estimated 169,448 households. All models present positive financial viability, measured through the benefit-cost ratio, financial internal rate of return and net present value discounted over 10 years using a rate of 3.6 per cent. SAPP II is projected to yield a baseline economic rate of return of 23 per cent, with a positive net present value of US\$11.9 million. The baseline economic rate of return of 23 per cent exceeds the discount rate used for economic analysis, confirming the soundness of the proposed investment. Sensitivity analysis results indicate that the programme remains economically viable under a range of assumptions.

Exit strategy and sustainability

27. Sustainability is considered in institutional, financial, environmental and farming-system terms. Building institutional capacity, training and supporting Government institutions and departments – both at national and subnational levels – will strengthen the capacity of key line ministries to deliver on the agriculture commercialization agenda. Promoting good agricultural practices, environmental protection and support for the productive natural resource base will ensure the sustainability of natural resources and ecosystems, which are essential for farmers' livelihoods.
28. Commercialization and a strong focus on private sector participation will ensure sustainable access to inputs, production and productivity technologies, and private-sector-driven extension support services, creating an enabling environment for the transition from subsistence to market-oriented production. Engagement of financial institutions in the management of the Farmer Challenge Fund will leverage sustainable financing through blended finance mechanisms and incentivise banks to unlock additional financing for the rural agricultural sector.

III. Risk management

A. Risks and mitigation measures

29. **Climate variability.** Malawi's climate is characterized by high variability, with distinct wet and dry seasons and significant regional differences. The country experiences a range of climate hazards, including droughts, floods and extreme rainfall events, which are exacerbated by external climate drivers such as El Niño. These climate variations significantly affect various sectors, particularly agriculture, and disproportionately affect SAPP II districts.
30. **Programme budgeting.** Programme budgeting will be undertaken by the SAPP II PMU in accordance with existing IFAD procedures and government financial laws and policies. The annual workplan and budget (AWPB) will detail financiers and the proportion of financing for each activity. It will be approved by the programme steering committee and cleared by IFAD through a "no objection" prior to implementation.

B. Environment and social category

31. The programme's preliminary environmental and social category is rated as moderate. Most anticipated effects will be mitigated by prevention and mitigation plans. The detailed climate risk analysis identified significant climate change impacts in the country. As a result, an environmental, social and climate management plan (ESCMP) has been developed and will be used as a monitoring tool to avoid negative environmental impacts. The ESCMP matrix will be included in the implementation manual. Regarding SECAP compliance, the programme will adhere to the SECAP requirements based on risk categorization.
32. **Environmental and social management (and monitoring) system.** An environmental and social management system was integrated into the design of SAPP II and will continue under the proposed additional financing, emphasizing the adoption of good environmental, health and safety practices by smallholders.

C. Climate risk classification

33. The programme's climate risk category is substantial. A targeted adaptation assessment identifies specific adaptation actions to be implemented throughout the programme's lifetime. The climate risk exposure and adaptation response (CLEAR) tool will be used to assess climate hazard hotspots and determine appropriate adaptive measures for integration into programme interventions. Climate scenario analysis forecasts changes in temperature, variability and the intensity and frequency of extreme events.
34. The climate risk classification for the additional financing remains substantial, consistent with the parent programme. The programme continues to address climate-related risks through a targeted adaptation assessment that identifies specific adaptation measures for implementation throughout the programme duration. The continued use of the CLEAR tool will assess climate hazard hotspots and guide the integration of context-appropriate adaptive measures into programme interventions. Climate scenario analysis – accounting for projected changes in temperature, climate variability and the increasing frequency and intensity of extreme events – remains central to the programme's adaptive design and risk management. Accordingly, the climate risk level is expected to remain unchanged under the additional financing.

IV. Implementation

A. Compliance with IFAD policies

35. The proposed additional financing complies with relevant government and IFAD policies. SAPP II fully aligns with a range of national and strategic policy frameworks. It supports the Government of Malawi's Vision 2063, particularly

pillar I on agricultural productivity and commercialization, and is consistent with the National Agriculture Investment Plan (NAIP) (2017/2018–2022/2023). The programme's focus on food and nutrition security responds to the NAIP and the National Livestock Development Policy (2021–2026). In addressing climate vulnerability, SAPP II is aligned with the National Resilience Strategy (2018–2030), the National Climate Change Management Policy (2016), and Malawi's Nationally Determined Contributions (2015–2040), including commitments under the Nationally Appropriate Mitigation Actions, National Climate Change Response Framework, and the National Adaptation Plan. Additionally, the programme contributes to the IFAD country strategic opportunities programme (2023–2030), delivering on strategic objectives for improved food security, climate resilience and market access for smallholder farmers, women and youth. Implementation through the Ministry of Agriculture (MoA) ensures integration into national structures, while community and private sector engagement will enhance sustainability and market-oriented agriculture for rural populations.

B. Organizational framework

Management and coordination

36. The Ministry of Finance and Economic Affairs will formally represent the Government of Malawi on matters relating to SAPP II as the recipient of the grant from IFAD, while the MoA will be the lead implementing agency, providing strategic policy guidance and oversight. The Principal Secretary of the MoA will chair the programme steering committee. The programme technical committee will provide technical support to both the programme steering committee and the PMU. The Director of Agricultural Planning Services will chair the programme technical committee. The programme technical committee will mirror the membership of the programme steering committee and include other technical directors of the MoA, including the head of the NAIP. Day-to-day programme implementation will be the responsibility of an independent PMU, established under the aegis of the MoA. The Farmer Challenge Fund will be managed by a competent fund manager (financial institution), competitively recruited, with direct oversight of the implementation of the Farmer Challenge Fund.

Financial management, procurement and governance

37. **Financial management.** Financial management for SAPP II will be carried out by a dedicated finance team within the PMU, headed by a programme accountant and assisted by an assistant programme accountant and accounts assistants. Each participating district will also have designated finance staff to ensure efficient and effective financial management oversight and control at district level. SAPP II disbursement procedures will be based on quarterly interim financial reports and the submission of withdrawal applications.
38. Programme budgeting will be undertaken by the PMU in line with existing IFAD procedures and Government of Malawi financial laws and policies. The AWPB will be approved by the programme steering committee and submitted to IFAD for a no-objection prior to implementation. SAPP II will migrate to TOMPRO accounting software (web version) – an improvement on SAPP I – which will be configured to produce all financial statements required by IFAD. SAPP II will continue to use the internal audit department of the MoA. External audit will be carried out by the auditor general, with terms of reference approved by IFAD. Implementing entities are expected to adhere to IFAD's anticorruption guidelines as set out in IFAD's policy and procedure.
39. **Procurement arrangements** will be carried out in accordance with the Malawi Public Procurement and Disposal of Public Assets Act of 2016 and the Public Procurement Regulations of 2020, with the understanding that the national legal framework should comply with IFAD requirements, to be specified in the financing agreement and procurement arrangements letter. The programme will prepare a

procurement plan covering at least the first 18 months of implementation, followed by successive 12-month plans. The procurement of goods, works and services will be subject to IFAD's prior or post review to ensure that procurement is carried out in conformity with IFAD's project procurement guidelines and the financing agreement.

C. Monitoring and evaluation, learning, knowledge management and strategic communication

40. **Monitoring and evaluation.** Planning will be integrated into government processes and will be based on AWPBs, through participatory approaches from national to decentralized levels. The consolidated AWPB will be submitted to IFAD for review and "no objection" at least 60 days before the start of the programme year. The monitoring and evaluation (M&E) system will be guided by the national M&E master plan. The SAPP II M&E system will enable data to be disaggregated by gender and age. All core indicators will be measured at baseline, midline and completion. Data collection will combine qualitative and quantitative survey methods.
41. **Learning, knowledge management and strategic communication.** The programme will continue to draw on the data, information and analysis generated by the M&E function, which will in turn serve a number of key purposes. The programme will scale up existing tools to cover the additional financing and will produce policy briefs and learning notes documenting best practices, lessons learned and failures, to support policy dialogue and knowledge-sharing with stakeholders and other projects and programmes.

D. Proposed amendments to the financing agreement

42. An amendment to the current financing agreement between the Republic of Malawi and IFAD will be required to formalize the additional allocation of US\$10 million as a grant under IFAD13.
43. Reallocation of funds under the original IFAD12 financing is also proposed in anticipation of the Adaptation Fund resources.

V. Legal instruments and authority

44. A financing agreement between the Republic of Malawi and IFAD will constitute the legal instrument for extending the proposed financing to the recipient. The signed financing agreement will be amended following approval of the additional financing.
45. The Republic of Malawi is empowered under its laws to receive financing from IFAD.
46. I am satisfied that the proposed additional financing complies with the Agreement Establishing IFAD and the Policies and Criteria for IFAD Financing.

VI. Recommendation

47. I recommend that the Executive Board approve the additional financing in terms of the following resolution:

RESOLVED: that the Fund shall provide a Debt Sustainability Framework grant to the Republic of Malawi in an amount of ten million United States dollars (US\$10,000,000) and upon such terms and conditions as shall be substantially in accordance with the terms and conditions presented herein, and undertake the relevant reallocation of funds under Schedule 2.

Alvaro Lario
President

Updated logical framework incorporating the additional financing

Results Hierarchy	Indicators				Means of Verification			Assumptions	Project Yr 1 (2024)			
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Res		Year Targets	Year Results	Cumulative	
Outreach	1 Persons receiving services promoted or supported by the project				Project reports	Annually	PMU	Activities start on expected timeline				
	Males - Males		24700	49400					2050	2005	2005	
	Females - Females		24700	49400					2050	1940	1940	
	Young - Young people		14820	29640					1230	849	849	
	PwD		2470	4940					205	0	0	
	Total number of persons receiving services - Number of people		49400	98800					4100	3945	3945	
	Male - Percentage (%)		50	50					50	51	51	
	Female - Percentage (%)		50	50					50	49	49	
	Young - Percentage (%)		30	30					30	22	22	
	PwD - Percentage (%)		5	5	5	0	0					
	1.a Corresponding number of households reached				Project reports	Annually	PMU					
	Women-headed households - Households		14400	28800					1230	1940	1940	
	Non-women-headed households - Households		35000	70000					2870	2005	2005	
	Households - Households		49400	98800					4100	3945	3945	
	1.b Estimated corresponding total number of households members				Project reports	Annually	PMU					
	Household members - Number of people		247000	494000					20500	19725	19725	
	Project Goal To contribute towards wealth creation, and improve food and nutrition security among rural population of Malawi	Moderate/Chronic Food Insecurity				Reports from the IPC report, from HIS and DHS report	Every 3 years		PMU			
		% Individuals - Percentage (%)	33	30	25					0	0	0
		Household wealth index				Reports from the IPC report, from HIS and DHS report	Every 3 years		PMU			
% of rural population under the two lowest wealth quintiles - Percentage (%)	46	43	35	0	0			0				
	Number of beneficiaries reporting increase in income by at least 25%						PMU					

Development Objective Commercialise and enhance the resilience and productivity of smallholder farming systems of rural men, women and youth in selected districts of Malawi by 2030	Total - Number		7500	15000	Baseline, mid & end-line surveys	Baseline, mid & end-line		Participating beneficiaries and implementing agencies fully engaged in activities. Sufficient Government buy-in and facilitative policy environment.	0	0	0
	Males - Number		3750	7500					0	0	0
	Females - Number		3750	7500					0	0	0
	Young - Number		2850	5700					0	0	0
	PwD		375	750							
	Percentage increase of level of commercialisation				Baseline, mid & end-line surveys	Baseline, mid & end-line	PMU				
	Percentage increase in volume of commodities marketed by the beneficiaries - Percentage (%)		10	25					0	0	0
	IE.2.1 Individuals demonstrating an improvement in empowerment				Baseline, mid & end-line surveys/ COI surveys	Baseline, mid & end-line	PMU				
	Total persons - Percentage (%)	53.5	59.25	65					0	0	0
	Total persons - Number of people	42800	23700	52000					0	0	0
	Females - Percentage (%)	53.5	59.25	65					0	0	0
	Females - Females	21400	11850	26000					0		
	Males - Percentage (%)	53.5	59.25	65					0	0	0
	Males - Males	21400	11850	26000					0	0	0
	1.2.8 Women reporting minimum dietary diversity (MDDW)								COI surveys	Baseline, mid & end-line	PMU
	Women (%) - Percentage (%)	30.3	40	60	0	0	0				
	Women (number) - Females		12000	36000	0	0	0				
	Households (%) - Percentage (%)	30.3	40	60	0	0	0				
	Households (number) - Households		12000	36000	0	0	0				
	Household members - Number of people		60000	180000	0	0	0				
	Women-headed households - Households		5247	10494	0	0	0				
	SF.2.1 Households satisfied with project-supported services				COI surveys	Baseline, mid & end-line	PMU				
	Household members - Number of people		80000	320000					0	0	0
	Women-headed households - Households		4096	16384					0	0	0
	Households - Percentage (%)		40	80					0	0	0
	Households - Households		16000	64000					0	0	0
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI surveys	Baseline, mid & end-line	PMU				
	Household members - Number of people		160000	320000					0	0	0
	Women-headed households - Households		8192	16384					0	0	0
	Households - Percentage (%)	31.38	40	80					0	0	0
	Households - Households		32000	64000					0	0	0
Outcome Outcome 1.	1.2.2 Households reporting adoption of new/improved inputs, technologies or practices				COI surveys		PMU	- Beneficiaries willing to adopt			

Increased smallholder productivity and climate resilience	Total number of household members - Number of people	56745	37930	95065				climate smart agriculture and NRM practices	0	0	0
	Households - Percentage (%)	29.1	38.9	48.75				- Ability of the project to respond to climate shocks with pro-active adaptive management	0	0	0
	Women-headed households - Households		4992	9984				- Sufficient Government buy-in and facilitative policy environment	0	0	0
	Households - Households	11349	7586	19013				- Adequate labour and working conditions for women in the target value chains	0	0	0
	1.2.4 Households reporting an increase in production				COI surveys	Baseline, mid & end-line	PMU				
	Total number of household members - Number of people		47535	95065					0	0	0
	Households - Percentage (%)		38.9	48.75					0	0	0
	Women-headed households - Households		4992	9984					0	0	0
	Households - Households		9507	19013					0	0	0
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI surveys	Baseline, mid & end-line	PMU				
	Total number of household members - Number of people	38610	47535	95065					0	0	0
	Households - Percentage (%)	19.8	38.9	48.75					0	0	0
	Women-headed households - Households		4992	9984					0	0	0
	Households - Households	7722	9507	19013					0	0	0
	3.2.1 Tons of Greenhouse gas emissions (tCO2e) avoided and/or sequestered				Baseline and completion survey	Baseline, mid and endline	IFAD ECG				
	Hectares of land - Area (ha)	0	12220	36660					0	0	0
	tCO2e/20 years - Number	0	-127938	-383815					0	0	0
	tCO2e/ha - Number	0	-3.49	-10.47					0	0	0
	tCO2e/ha/year - Number	0	-0.17	-0.52					0	0	0
	1.2.9 Households with improved nutrition Knowledge Attitudes and Practices (KAP)										
	Indigenous households - Households								0	0	0
	Women-headed households - Households		5460	11700					0	0	0
	Households (number) - Households		21000	45000					0	0	0
	Households (%) - Percentage (%)	65.7	70	75					0	0	0
	Household members - Number of people		105000	225000					0	0	0
Output Output 1.1. Inclusive value chain and market analysis conducted	Stakeholders and value chain actors mapped				Projects reports	Annually	PMU	- Beneficiaries willing to adopt climate smart agriculture and NRM practices			
	Number of mapping exercises conducted - Number		4	8				- Ability of the project to respond to	0	0	0
Output Output 1.2. Enhanced capacity	1.1.8 Households provided with targeted support to improve their nutrition				Project reports	Annually	PMU				
	Total persons participating - Number of people		40000	68000					0	0	0

for climate smart and nutrition-sensitive production	Males - Males		16000	32000				climate shocks with pro-active adaptive management - Sufficient Government buy-in and facilitative policy environment - Adequate labour and working conditions for women in the target value chains	0	0	0
	Females - Females		24000	36000					0	0	0
	Households - Households		32000	60000					0	0	0
	Household members benefitted - Number of people		200000	300000					0	0	0
	Young - Young people		12000	18000					0	0	0
	Women-headed households - Households		10400	15600					0	0	0
	Technologies developed and promoted				Project reports	Annually	PMU				
	Number of new technologies developed - Number		5	15					0	0	0
	Number of new technologies promoted - Number		10	10					0	0	0
	1.1.3 Rural producers accessing production inputs and/or technological packages				Project reports	Annually	PMU				
	Males - Males		9750	19500					0	0	0
	Females - Females		9750	19500					0	0	0
	Young - Young people		5850	11700					0	0	0
	PwD		975	1950					0	0	0
	Total rural producers - Number of people		19500	39000					0	0	0
	1.1.4 Persons trained in production practices and/or technologies				Project reports	Annually	PMU				
	Men trained in crop - Males		9750	19500					100	67	67
	Women trained in crop - Females		9750	19500					100	83	83
	Young people trained in crop - Young people		5850	11700					30	43	43
	Men trained in livestock - Males		3900	7800					5	0	0
	Women trained in livestock - Females		3900	7800					0	0	0
	Young people trained in livestock - Young people		2340	4680					0	0	0
	Total persons trained in crop - Number of people		19500	39000					200	150	150
	Total persons trained in livestock - Number of people		7800	15600					0	0	0
	3.1.2 Persons provided with climate information services				Project reports	Annually	PMU				
	Males - Males		14719	29438					0	0	0
	Females - Females		14719	29438					0	0	0
	Young - Young people		8831	17663					0	0	0
	PwD		1472	2944							
	Persons provided with climate information services - Number of people		29438	58876					0	0	0
	People who benefited from the pass-on programme					Annually	PMU				

	Number of beneficiaries from the goat pass-on programme - Number		2896	5792					2200	2145	2145
	Number of goats passed-on - Number		14480	28960	Project reports				11000	10725	10725
	Number of beneficiaries from the chicken pass-on programme - Number		6188	12375					1700	1650	1650
	Number of chicken passed-on - Number		6375	12750					17000	16500	16500
	People trained on GALS				Project reports	Annually	PMU				
	Number of extension workers trained as ToT - Number		250	250					0	0	0
	Number of local facilitators trained - Number		500	500					0	0	0
	Percentage of women local facilitators trained - Percentage (%)		60	60					0	0	0
	Number of households mentored - Number		7000	10000					0	0	0
	Public-private extensions supported				Project reports	Annually	PMU				
	Number of extensions officers trained and supported - Number		50	100					0	0	0
Output Output 1.3. Sustainable management of productive resources (soil, land and water)	3.1.4 Land brought under climate-resilient practices				Project reports	Annually	PMU				
	Hectares of land - Area (ha)		2000	4000					0	0	0
	Number of HH benefiting from sustainable soil and water conservation practices				Project reports	Annually	PMU				
	Number of households - Number		5000	10125					0	0	0
	Number of farming HH trained in micro-catchment and sustainable soil fertility management				Project reports	Annually	PMU				
	Number of farming households - Number		5000	10125					0	0	0
Outcome Outcome 2. Commercialisation of smallholder farming systems promoted	Number of beneficiaries who reported increase of sale (quantity of produce sold) by 25%				Baseline, mid & end-line surveys	Baseline, mid & end-line	PMU	- Farmers' groups propose business plans for post-harvest investments			
	Total - Number		7500	15000				- Beneficiaries and agri-businesses are willing to participating in creation of mechanisms for interaction between different actors	0	0	0
	Males - Number		3750	7500				- Adequate	0	0	0
	Females - Number		3750	7500					0	0	0
	Young - Number		2250	4500					0	0	0
	PwD - Number		375	750					0	0	0
	2.2.4 Supported rural producers' organizations providing new or improved services to their members				COI surveys	Baseline, mid & end-line	PMU				
	Number of POs - Organizations		375	750					0	0	0
	Total number of POs members - Number of people		9376	18750					0	0	0
	Males POs members - Males		4688	9375					0	0	0

6

	Males - Number		1875	3750				0	0	0
	Females - Number		1875	3750				0	0	0
	Young - Number		1125	2250				0	0	0
	PwD		1877	350						
	2.1.6 Market, processing or storage facilities constructed or rehabilitated									
	Total number of facilities - Facilities		126	250				0	0	0
	Processing facilities constructed/rehabilitated - Facilities		63	125				0	0	0
	Storage facilities constructed/rehabilitated - Facilities		63	125				0	0	0
	Number of beneficiaries who reported having access to new post-harvest facilities				Project reports	Annually	PMU			
	Total - Number		1875	3750				0	0	0
	Males - Number		938	1875				0	0	0
	Females - Number		937	1875				0	0	0
	Young - Number		563	1125				0	0	0
	PwD - Number		94	188						
Output Output 2.3. Farmer Challenge Fund (FCF) operationalized	2.1.2 Persons trained in income-generating activities or business management				Project reports	Annually	PMU			
	Males - Males		3750	7500				0	0	0
	Females - Females		3750	7500				0	0	0
	Young - Young people		2250	4500				0	0	0
	PwD - Number		375	750						
	Persons trained in IGAs or BM (total) - Number of people		7500	15000				0	0	0
	Number of business plan proposals approved for financing				Project reports	Annually	PMU			
	Number of business plans approved - Number		375	750				0	0	0
	Volume of funds (USD) - Money (USD' 000)		5000000	5000000				0	0	0
	Number of farmer groups/projects accessing FCF				Project reports	Annually	PMU			
	Number of farmer groups/projects accessing FCF to promote Production - Number		250	500				0	0	0
	Number of farmer groups/projects accessing FCF to promote commercialisation - Number		125	250				0	0	0
Outcome Outcome 3. Strengthened institutional capacity and knowledge	Annual disbursement				Project reports	Annually	PMU	- Training and exchange visits are organized		
	Annual disbursement target met against the AWPB - Number		70	70				- Effective implementation	0	0

management systems								arrangements and manageable workload of the PIU					
Output Output 3.1. Capacity of staff, Communication, knowledge management and M&E	Trainings and capacity building of the PMU				Project reports	Annually	PMU						
	Number of staff participating - Number		10	20							0	0	0
	Males - Number		5	10							0	0	0
	Females - Number		5	10							0	0	0
	Success stories, best practices and lessons learnt documented and disseminated				Project reports	Annually	PMU						
	Number of success stories shared - Number		10	20							0	0	0
	Number of best practices documented - Number		2	10							0	0	0
	Number of lessons learnt shared - Number		5	10							0	0	0
Output Output 3.2. Institution building and policy engagement for resilient and market-oriented food systems	Government staff trained on disaster preparedness, mitigation and timely response				Project reports	Annually	PMU	- Training and exchange visits are organized - Effective implementation arrangements and manageable workload of the PIU					
	Number of government staff trained - Number		15	30							0		0
	Policy engagement supported				Project reports	Annually	PMU						
	Number of workshops organized for policy discussions - Number		2	10							0	0	0
	Number of policy documents supported - Number		1	3					0	0	0		

Updated summary of the economic and financial analysis

The Economic and Financial Analysis (EFA) has been anchored on the project development objective which is "To commercialise and enhance the resilience and productivity of smallholder farming systems of rural men, women and youth in selected districts of Malawi by 2030". Therefore, the models that have been developed for this EFA have both the productivity metrics such as increase yields, reduction in post-harvest losses but unlike in SAPP, there is now emphasis on commercialisation. Commercialisation investments to be made by SAPP II have been reflected in the EFA models in the form of increase in premium prices paid to farmers. Innovations like linking farmers to markets can fetch premium prices for the producer groups and their households.

Beneficiary outreach, cost per beneficiary and adoption rates: The direct target household (HH) beneficiaries for SAPP II for the selected target areas are projected at 169,448 (HH) translating into 847,240 household members assuming 5 people per HH. This includes 80,000 HHs receiving direct project services under agricultural production, 10,728 HHs and 78,720 HHs accessing goats & chickens through pass-on programme respectively. Adoption rate for HHs receiving direct project services under agricultural production is assumed at 49% which corresponds to about 39,000 HHs. No adoption rate has been applied to HHs under the pass-on programme. The total number of households adopting the proposed investment is, therefore, 128,448 HHs. The summary is presented in the tables below.

Table A: **Financial cash flow models**

Project Year		Farm models' net incremental benefits (in Kw'000)							
		Maize	Groundnuts	Pigeon Peas	Cowpeas	Soyabean	Goats	Local Chicken	Tomatoes
	PY1	(59)	(168)	(8)	(217)	(275)	(117)	22	(936)
	PY2	574	638	303	(62)	(58)	4	136	(254)
	PY3	1,085	1,073	466	113	120	0	82	340
	PY4	1,680	1,319	801	249	277	3	135	773
	PY5	1,680	1,319	801	249	277	17	180	773
	PY6	1,680	1,319	801	249	277	40	215	773
	PY7	1,680	1,319	801	249	277	33	240	773
	PY8	1,680	1,319	801	249	277	51	285	773
	PY9	1,680	1,319	801	249	277	55	320	773
	PY10	1,680	1,319	801	249	277	33	355	773
IRR		1056%	434%	3706%	50%	47%	11%		38%
NPV (Kw 000) @10%		10,614	8,586	5,062	1,192	1,301	66	1,542	3,381
B/C Ratio		2.47	2.26	5.14	1.04	1.23	1.16	4.13	1.35
Return to		36.5	43.3	76.0	2.4	5.6	7.2	12.1	10.1

Table B: Project costs and log-frame targets

PROGRAMME COSTS AND INDICATORS FOR LOGFRAME				
TOTAL PROGRAMME COSTS (in million USD)				
Beneficiaries	847,240	people	53.0	Million
Cost per beneficiary	63	USD x person	169,448	Household
				313
Components and Cost (USD million)				
A. Increased Smallholder Productivity and Climate	13.1			
B. Commercialisation of smallholder farming systems promoted	31.3			
C. Strengthened institutional capacity and knowledge	4.0			
D. Project Management Costs	4.7			
Total	53.0			

Table C: Main assumptions and shadow prices

MAIN ASSUMPTIONS & SHADOW PRICES					
FINANCIAL	Output	Yields (Annually) Kg			
		Land Size	WOP	WP	Price (KW'000)
	Maize	Ha	2,650	4,903	0.8
	Groundnuts	Ha	446	1,588	1.4
	Pigeon Peas	Ha	1,933	2,500	0.8
	Cowpeas	Ha	524	1,000	1.0
	Soyabean	Ha	850	1,148	1.2
	#REF!	Ha	800	1,000	1.2
	Goats	-	3	21	25.0
	Local Chicken	-	11	72	4.0
Economic	Standard Conversion Factor	0.89	Discount rate for Financial		4%
	Labour Conversion Factor	0.94	Discount rate for Economic		17%

Table D: Beneficiary adoption rates and phasing

Household Phasing - Crop production	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Beneficiaries under Agricultural Production	80,000	6,400	12,651	12,988	17,271	17,227	11,354	2,110		
Cumulative Number of Beneficiaries	6,400	19,051	32,039	49,310	66,536	77,890	80,000			
Adoption Rate	49%									
Beneficiary Aggregation										
Beneficiaries in Y1	3,120	6,168	6,331	8,419	8,398	5,535	1,028			
Beneficiaries in Y2		3,120	6,168	6,331	8,419	8,398	5,535	1,028		
Beneficiaries in Y3			3,120	6,168	6,331	8,419	8,398	5,535	1,028	
Beneficiaries in Y4				3,120	6,168	6,331	8,419	8,398	5,535	1,028
Beneficiaries in Y5					3,120	6,168	6,331	8,419	8,398	5,535
Beneficiaries in Y6						3,120	6,168	6,331	8,419	8,398
Beneficiaries in Y7							3,120	6,168	6,331	8,419
Beneficiaries in Y8								3,120	6,168	6,331
Beneficiaries in Y9									3,120	6,168
Beneficiaries in Y10										3,120
Total Beneficiaries	3,120	9,288	15,619	24,038	32,437	37,972	39,000	39,000	39,000	39,000

Table E: Economic cash flow

Project year	Project Incremental Economic Benefits			Incremental Fam Benefits (MWK million)	Economic Project Costs (MWK million)			Cash-flow
	Farm Benefits	Pass-on benefits (Goats)	Pass-on benefits (Chicken)		Investment Costs	Recurrent Costs	Total Economic Costs	
PY1	(1,547)	(62)	(222)	(1,831)	3,476	522	3,998	(5,829)
PY2	(2,653)	(55)	348	(2,360)	7,381	522	7,903	(10,263)
PY3	(1,458)	(27)	479	(1,006)	7,591	522	8,113	(9,120)
PY4	(148)	(18)	548	382	10,267	522	10,789	(10,407)
PY5	3,072	9	676	3,757	10,240	522	10,762	(7,004)
PY6	8,047	54	743	8,844	6,571	522	7,093	1,751
PY7	15,315	116	701	16,132	796	522	1,318	14,814
PY8	16,908	208	782	17,898		104	104	17,793
PY9	18,098	377	843	19,318		104	104	19,213
PY10	19,719	604	945	21,268		104	104	21,164
PY11	19,719	604	945	21,268		104	104	21,164
PY12	19,719	604	945	21,268		104	104	21,164
PY13	19,719	604	945	21,268		104	104	21,164
PY14	19,719	604	945	21,268		104	104	21,164
PY15	19,719	604	945	21,268		104	104	21,164
PY16	19,719	604	945	21,268		104	104	21,164
PY17	19,719	604	945	21,268		104	104	21,164
PY18	19,719	604	945	21,268		104	104	21,164
PY19	19,719	604	945	21,268		104	104	21,164
PY20	19,719	604	945	21,268		104	104	21,164
NPV@ 13% (KW' million)								12,393
NPV@ 13% ('millionUSD)								11.92
EIRR								23%
BCR				295,082			51,332	5.7

Table F: Sensitivity analysis

Year	1	2	3	4	5	6	7	8	9	10	11	12	13-20	14	15	16	17	18	19	20
Incremental Benefits	(1,831)	(2,360)	(1,006)	382	3,757	8,844	16,132	17,898	19,318	21,268	21,268	21,268	21,268	21,268	21,268	21,268	21,268	21,268	21,268	21,268
benefits +10%	(2,014)	(2,595)	(1,107)	420	4,133	9,728	17,745	19,687	21,250	23,395	23,395	23,395	23,395	23,395	23,395	23,395	23,395	23,395	23,395	23,395
benefits +20%	(2,197)	(2,831)	(1,208)	458	4,509	10,613	19,358	21,477	23,181	25,522	25,522	25,522	25,522	25,522	25,522	25,522	25,522	25,522	25,522	25,522
Mild scenario	(1,647)	(2,124)	(906)	344	3,382	7,959	14,519	16,108	17,386	19,141	19,141	19,141	19,141	19,141	19,141	19,141	19,141	19,141	19,141	19,141
Medium scenario	(1,464)	(1,888)	(805)	306	3,006	7,075	12,906	14,318	15,454	17,014	17,014	17,014	17,014	17,014	17,014	17,014	17,014	17,014	17,014	17,014
High scenario	(1,281)	(1,652)	(704)	267	2,630	6,191	11,292	12,528	13,522	14,888	14,888	14,888	14,888	14,888	14,888	14,888	14,888	14,888	14,888	14,888
Project Costs	3,998	7,903	8,113	10,789	10,762	7,093	1,318	104	104	104	104	104	104	104	104	104	104	104	104	104
costs +10%	4,398	8,694	8,925	11,868	11,838	7,802	1,450	115	115	115	115	115	115	115	115	115	115	115	115	115
costs +20%	4,798	9,484	9,736	12,947	12,914	8,511	1,581	125	125	125	125	125	125	125	125	125	125	125	125	125
costs +30%	5,997	11,855	12,170	16,183	16,142	9,221	1,713	136	136	136	136	136	136	136	136	136	136	136	136	136
Net cash flow	(5,829)	(10,263)	(9,120)	(10,407)	(7,004)	1,751	14,814	17,793	19,213	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164
base scenario	(5,829)	(10,263)	(9,120)	(10,407)	(7,004)	1,751	14,814	17,793	19,213	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164
costs +10%	(6,228)	(11,053)	(9,931)	(11,486)	(8,080)	1,042	14,682	17,783	19,203	21,153	21,153	21,153	21,153	21,153	21,153	21,153	21,153	21,153	21,153	21,153
costs +20%	(6,628)	(11,843)	(10,742)	(12,565)	(9,157)	333	14,551	17,772	19,193	21,143	21,143	21,143	21,143	21,143	21,143	21,143	21,143	21,143	21,143	21,143
costs +30%	(7,828)	(14,214)	(13,176)	(15,801)	(12,385)	(977)	14,419	17,762	19,182	21,132	21,132	21,132	21,132	21,132	21,132	21,132	21,132	21,132	21,132	21,132
benefits +10%	(6,012)	(10,499)	(9,220)	(10,369)	(6,628)	2,635	16,427	19,583	21,145	23,290	23,290	23,290	23,290	23,290	23,290	23,290	23,290	23,290	23,290	23,290
benefits +20%	(6,195)	(10,735)	(9,321)	(10,330)	(6,253)	3,520	18,040	21,373	23,077	25,417	25,417	25,417	25,417	25,417	25,417	25,417	25,417	25,417	25,417	25,417
benefits -10%	(5,646)	(10,027)	(9,019)	(10,445)	(7,380)	867	13,201	16,003	17,282	19,037	19,037	19,037	19,037	19,037	19,037	19,037	19,037	19,037	19,037	19,037
benefits -20%	(5,462)	(9,791)	(8,918)	(10,483)	(7,756)	(18)	11,588	14,214	15,350	16,910	16,910	16,910	16,910	16,910	16,910	16,910	16,910	16,910	16,910	16,910
benefits -30%	(5,279)	(9,555)	(8,818)	(10,521)	(8,131)	(902)	9,974	12,424	13,418	14,783	14,783	14,783	14,783	14,783	14,783	14,783	14,783	14,783	14,783	14,783
benefits delayed 1 year	(3,998)	(9,734)	(10,473)	(11,795)	(10,380)	(3,335)	7,526	16,028	17,793	19,213	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164
benefits delayed 2 years	(3,998)	(7,903)	(9,944)	(13,148)	(11,768)	(6,711)	2,439	8,739	16,028	17,793	19,213	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164
benefits delayed 3 years	(3,998)	(7,903)	(8,113)	(12,619)	(13,121)	(8,099)	(936)	3,653	8,739	16,028	17,793	19,213	21,164	21,164	21,164	21,164	21,164	21,164	21,164	21,164
benefits delayed 4 years	(3,998)	(7,903)	(8,113)	(10,789)	(12,592)	(9,452)	(2,324)	278	3,653	8,739	16,028	17,793	19,213	21,164	21,164	21,164	21,164	21,164	21,164	21,164
Discount rate	17%																			
Sensitivity Analysis	Base case	Costs increase			Benefits increase		Decrease of Benefits			Delay of Benefits										
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	-30%	1 year	2 years									
		23%	21%	20%	17%	24%	26%	21%	19%	17%	20%									
NPV (MKW*Million '000)	23%	12,393	9,588	6,783	(967)	16,438	20,482	8,349	4,305	260	5,683	(38)								