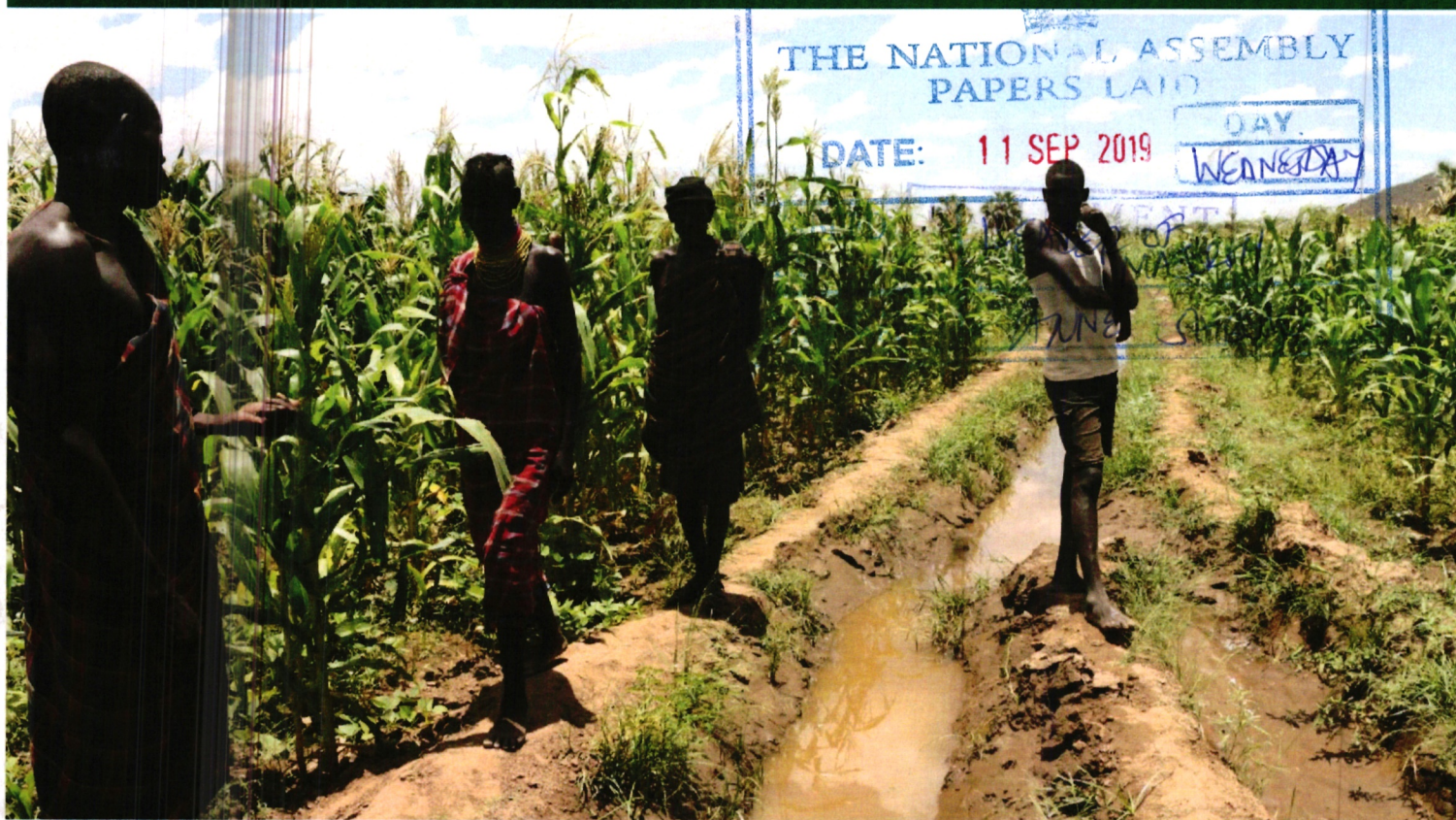


**SPECIAL AUDIT REPORT OF THE AUDITOR-GENERAL ON
CAPITAL WORKS ON IRRIGATION PROJECTS
UNDERTAKEN BY
NATIONAL IRRIGATION BOARD**



STATE DEPARTMENT FOR IRRIGATION
MINISTRY OF AGRICULTURE, LIVESTOCK, FISHERIES & IRRIGATION

JUNE 2019

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List of Abbreviations

The following abbreviations are used in this report.

Abbreviation	Full Description
ASALs	Arid and Semi-Arid Lands
BOD	Board of Directors
CS	Cabinet Secretary
DGM	Deputy General Manager
GOK	Government of Kenya
GKFSP	Galana Kulalu Food Security Project
MoALF	Ministry of Agriculture Livestock & Fisheries
NIB	National Irrigations Board
PPDA	Public Procurement and Disposals Act
PIC	Public Investment Committee
PPR	Public Procurement Regulations
PFMA	Public Finance Management Act
SOPs	Standard Operating Procedures

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1 EXECUTIVE SUMMARY

1.1 Introduction

- 1.1.1 On 26 April, 2016, the Member of Parliament (MP) for Loima Constituency presented a petition to Parliament alleging financial imprudence, financial impropriety and allocation of resources to non-existent projects leading to abandonment of works by contractors in NIB Projects implemented in Turkana County. The specific projects alleged to have been mismanaged are detailed in Appendix I.
- 1.1.2 Subsequently, Parliament Investment Committee (PIC) recommended that the Auditor -General undertakes a performance audit on the capital works on irrigation projects undertaken by NIB in Turkana County, its environs and countrywide with a view to ascertaining their level of implementation and value for money.
- 1.1.3 Performance audits, also known as Value-for-Money audits refers to an independent examination of programs, management systems and procedures of an entity to assess whether the entity is achieving economy, efficiency and effectiveness in the employment of available resources.
- 1.1.4 Effectiveness is the extent to which objectives have been achieved and the relationship between the intended and actual impacts of activities. In this special audit, effectiveness was determined by: Confirming whether the project existed on the ground; and whether it was in production as anticipated in the feasibility study.
- 1.1.5 Economy refers to acquiring resources at the lowest cost while having due regard to quality. Section 2(a) of the PPDA, 2005 provides that the purpose of the PPDA is to promote competition and fairness in the procurement process so as to enhance economy and efficiency. In this regard, the special audit determined economy and efficiency by: Evaluating whether or not the procurement process was done in a manner that promotes competition to ensure project goods and services were acquired at the lowest cost with due regard to quality. Quality was ascertained by seeking expert opinion from Irrigation Engineers.

1.2 Scope of work

1.2.1 In view of time and resource constraints, the special audit covered ALL capital irrigation projects undertaken by NIB in Turkana County and also sampled five additional capital irrigation projects undertaken in selected Counties identified in a manner to ensure fair regional representation of NIB projects in the Country as follows:

	Particulars	Budget (Kshs.)	Committed (Kshs.)	Justification
1	16 Projects implemented in Turkana County	1,899,925,199	968,257,281	Allegations of financial imprudence
2	Galana Kulalu Food Security Project, Kilifi (Coast & North Eastern Region)	14,833,647,986	8,249,275,475	Sensitivity to the economy in terms of Food security and Public Debt & also representing Coast Region
3	Lower Sio Irrigation Project, Busia County (Western Region)	1,210,000,000	2,238,578,663	Sensitivity to the economy in terms of Food security and also representing Western Region
4	Chemase Irrigation Development project, Nandi County (Rift Valley Region)	192,000,000	172,200,500	Sensitivity to the economy in terms of Food security and also representing Rift Valley Region
5	South West Kano Irrigation Development Project, Kisumu County (Nyanza Region)	220,000,000	123,824,466	Sensitivity to the economy in terms of Food security and also representing Nyanza Region
6	Mirichu Murika Irrigation Project, Muranga County (Central Region)	246,041,209	160,535,658	Sensitivity to the economy in terms of Food security and also representing Central Kenya Region
	Total	18,601,614,394	11,912,672,043	

1.3 Terms of Reference

1.3.1 In order to address the allegations raised by the PIC, the special audit developed the following Terms of References (TORs) :

- Review project identification and planning process;
- Review project budgets and financing in line with PFMA, 2012;
- Review the project procurement process in line with PPDA, 2005 and Regulations of 2006;
- Establish whether project expenditures incurred realized Value-for-Money; and
- Identify irregularities, weakness and apportion managerial responsibilities.

1.4 Challenges and Limitations

1.4.1 Due to vast terrain, resource and time limitations, the special audit did not conduct field audit inspections in the following projects within Turkana County: Naoros Irrigation Scheme Development Project, Elelea/ Lokubae Irrigation Scheme Development Project, Kabulokor Irrigation Scheme Development Project and Loborot Irrigation Scheme Development Project.

1.5 Structure of the report

1.5.1 The special audit report has three sections; the executive summary, the introduction and the detailed findings. The report should be read in its entirety in order to comprehend fully the approach to, and findings. The report has reported on facts as understood, with the aim of informing the PIC on their deliberations and decision making, cognizant of any limitations raised.

1.6 Key Findings

Project identification and planning

1.6.1 There was no evidence that NIB conducted feasibility studies to ascertain technical and economic viability of the following projects Katilu Drip Irrigation Project, Kalemnyang phase I & II, Chemase Irrigation Project and Nakamane Irrigation Schemes. The absence of feasibility studies is an indication of inadequate project appraisal and risk management strategies, and may result in allocation of public funds in non-viable projects leading to project failure and loss of public funds.

Budgetary allocation and financing

1.6.2 During the period under review, NIB budgeted a total of Kshs.18,601,614,394 for various irrigation projects under review. However, due to inadequate funding, only Kshs.11,912,672,043 was allocated to the projects under review resulting in a variance of Kshs.6,688,942,351 between budgetary allocations and actual project funding. This translates to overall project under funding of thirty-five percent (35%). The projects may therefore not realize full potential due to inadequate funding.

Procurement process

1.6.3 NIB had in place Annual Procurement Plans that indicated project components to be procured and respective methods of procurements to be used. The special audit noted that in the Galana Kulau Food Security Project, direct procurement was used. The special audit further noted that NIB embraced various methods of procurements that allowed for competitiveness among bidders for all other projects reviewed.

a) PROJECTS IN TURKANA COUNTY

1.6.4 Section 66 (3(a) of PPDA, 2005 requires the evaluation criteria to be objective and quantifiable. The special audit noted that contrary to this requirement, all bids reviewed had been subjectively evaluated based on qualitative attributes of pass/fail.

1.6.5 There was no evidence that the inspection and acceptance committees inspected and reviewed the irrigation projects other than Naremit, Lokipetot, Naoros, Turkwel and Nadoto Irrigation Projects in order to ensure compliance with the terms and specifications of the contract, contrary to Regulation 17 (3)(e) of PPR, 2006. The special audit also noted that all projects were being inspected and approved by the NIBs' Project Engineer prior to payments.

1.6.6 Section 64(1) of the PPDA, 2005 requires a tender to be considered responsive only if it conforms to all mandatory requirements. Preliminary evaluation criteria required responsive bidders to provide certificate of registration/incorporation. The evaluation committee for Nadapal and Kalemnyang' Irrigation Projects in Turkana County did not apply this criterion in a consistent manner.

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- 1.6.7 M/s. Jomat Construction Ltd and M/s. Nakuru Express Supplies, bidders for Nadapal and Kalemnyang' Irrigation Projects respectively had not attached certificates of incorporation. While the same issues were noted by the evaluation committee, the same committee declared the bidders responsive contrary to Section 64(1) of the PPDA, 2005. The special audit however noted the firms had attached a PIN Certificate from KRA as an alternate for proof of registration.
- 1.6.8 Regulation 16 (5) (b) of PPR, 2006 requires evaluation of tenders to be done within 30 days after opening of the bids. The bids for Nadapal Irrigation Project were opened on 21 February 2012 (30 days elapsed on 21 March 2012), while evaluation report was dated 10 May 2012. The special audit noted that NIB did not therefore evaluate the bids within 30 days from date of tender opening contrary to Regulation 16 (5) (b) of PPR, 2006. The NIB however attributed the delays in evaluation of bids to uncertainty of funds flow.
- 1.6.9 The NIB directly invited RFP for Katilu Drip Irrigation Project in Turkana County amounting to Kshs.61,429,692 instead of advertising the Expression of Interest (EOI) before invitation of RFPs contrary to Sections 78(1) of PPDA, 2005. As at the time of completion of the special audit, the contractor had been paid a total of Kshs. 49,702,178 resulting in a variance of Kshs. 11,727,513 between contract sum and actual payments.
- 1.6.10 This variance represents the value of uncompleted work as a results of the contractor abandoning the site in the year 2014. The special audit in consultation with experts (Irrigation Engineers) valued the uncompleted work at Kshs. 11,401,015. This included: Drilling of shallow abstraction wells, supply and installation of pumps and generator sets, installation of twenty-five tanks, installation of drip irrigation, training and operation of farm cropping period. The special audit further noted at the completion of this special audit that NIB Management were procuring for a new contractor to complete the works.
- 1.6.11 Section 68 (1) of the PPDA ,2005 requires the contract price between the procuring entity and the successful bidder to take into consideration any correction of arithmetic errors made. Contrary to this requirement, it was established that contracts for Kalemnyang' phase 1, Loborot and Kabulkor Irrigation Projects were executed at contract prices that did not take into

consideration correction of arithmetic errors contrary to Section 68 (1) of the PPDA, 2005.

- 1.6.12 The NIB invited ten prequalified firms to bid for tender for Turkwel Irrigation Scheme. Two bidders M/s. Machine Centre Ltd (Kshs.75,143,304) and M/s. Tosha At General Construction Ltd (Kshs.70,854,410) were declared responsive at preliminary evaluation level.
- 1.6.13 Though the two bidders were declared responsive, the special audit noted that the evaluation criteria were not applied uniformly since these bidders had failed to meet the requirements of at least two criteria under technical evaluation but were said to be responsive. M/s. Machine Centre Ltd failed under work programme while M/s. Tosha at General Construction Ltd failed under qualification of key personnel and work programme.
- 1.6.14 The evaluation committee however noted that these limitations could not substantially affect the scope, quality and completion of the projects and therefore both firms were declared responsive. The NIB management proceeded to award the tender to M/s. Tosha at General Construction Ltd at a contract sum of Kshs. 70,854,410.

b) PROJECTS IN OTHER PARTS OF KENYA

Galana-Kulalu Food Security Project: Kilifi County

- 1.6.15 As part of realization of the National Economic Food Security strategy of the Vision 2030 economic blue print, the Government through NIB budgeted an amount of Kshs. 14,833,647,986 towards developing a 10,000-acre model farm in Galana Ranch in Kilifi. The project was co-funded by grants from Government of Kenya of Kshs.5,726,310,200 (USD. 67,368,355) and a loan from Government of Israel.
- 1.6.16 On 31 August 2015, the Government of Kenya represented by the CS - National Treasury, Mr. Henry Rotich signed a Credit Loan Agreement amounting to USD.71,408,014 (Kshs.6,069,681,190) with Bank Leumile-Israel B.M of which USD.63,158,000 (Kshs.5,368,430,000) was to be used to finance part of the contract price for construction works while USD.8,250,014 (Kshs.701,251,190) was to be used for the purpose of paying insurance premium to the Israel Foreign Trade Risks Insurance Corporation Ltd (ASHRA).

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- 1.6.17 The total cost of the loan is projected at USD.20,000,958 comprising; insurance premium (USD.8,250,014), commitment fee (USD.498,271), interest cost (USD.10,967,040) and loan related costs of USD.285,633. Section 3(a) of the loan agreement indicates that the loan will be utilized at source i.e. at Bank Leumile-Israel B.M. As at 31 December 2016, certificates amounting to USD.30,968,106 had been forwarded by the NIB to Bank Leumile-Israel through the National Treasury of Kenya for payment.
- 1.6.18 The special audit question the whole intention of utilization of foreign borrowings at source by the National Treasury, which is a red flag and indeed could have denied the economy an opportunity to benefit from foreign exchange gains that could have a rose if the loan proceeds were to be disbursed directly to the country via foreign exchange reserve accounts.
- 1.6.19 The special audit further noted that disbursements of the loan amount of USD.71,408,014 were to be made directly by Bank Leumile-Israel B.M to the Project Contractor (M/s. Green Arava Ltd) on receipt of original duly completed request for disbursement signed by the National Treasury of Kenya and to ASHRA upon receipt of an invoice issued by ASHRA for ASHRA's premium covering goods and services rendered under the commercial contract and the NIB's certificate.
- 1.6.20 The special audit also established that while NIB had leased 20,000 acres of land from Agriculture Development Corporation at a rate of Kshs.3,000 per acre per year for a period of five years, only 10,000 acres was to be put under production thus far. No details were provided on the intended use of the remaining 10,000 acres of land.
- 1.6.21 On 22 May 2014, the former General Manger of NIB, Eng. D. K. Barasa, wrote to the PS, MoALF, Mrs. Sicily K. Kariuki and informed her that NIB, ADC and the MOALF had resolved that M/s. Green Arava Israel be procured to carry out development of the model farm.
- 1.6.22 The letter by Eng. D. K. Barasa further highlighted that M/s. Green Arava Israel was the parent company of M/s. Agri-Green Consulting (Israel), the consortium firm that conducted feasibility study, designs and cost estimates.
- 1.6.23 The tender committee also approved use of direct procurement method to procure a contractor (M/s. Green Arava Israel) for construction works of the

10,000-acre model farm on the premise of section 74(2) of PPDA, 2005 that allows use of direct procurement in circumstances where there is only one supplier of goods/services and there is no any other reasonable alternative. The tender committee relied on this provision and indicated that there was no better alternative to implement and test the recommended technology in the model farm other than the company who designed it since the implementation by the designer would be faster a fact that could not be authenticated.

1.6.24 This culminated into signing of a contract on 20 April 2014 between NIB and M/s. Green Arava Ltd at a contract sum of Kshs.14,545,106,963 (USD.163,428,168). This contract was later amended on 27 January 2016 to Kshs.7,294,853,037. The amendment was as a results of deferring some project activities due to inadequate funding. The NIB Management noted that the amendments had been approved by an inter-ministerial committee comprising Cabinet Secretaries for Agriculture, the National Treasury, Transport and infrastructure. The minutes of the this inter-ministerial committee meeting where the variation of the contract was approved were however not availed for the special audit verification.

1.6.25 In the absence of such documents, the special audit therefore highlighted that the same company that conducted feasibility studies and detailed designs was also awarded the tender to implement the project, which could signify inadequate segregation of duties in the project contract management and therefore have lack of control on the project costing.

1.6.26 A total of Kshs.8,249,275,475 had been incurred on various procurements in regard to this project as at the time of this audit as follows: Procurement of consultancy services for pre-investment, pre-feasibility and planning study (Kshs.921,145,953); Procurement of contractor for development of the 10,000-acre model farm (Kshs.7,294,853,037) and Procurement of contractors for rehabilitation and expansion of roads, water pans and airstrips (Kshs.33,276,485).

Lower-Sio Irrigation Project: Busia County

1.6.27 As at the time of the special audit, the NIB had incurred an amount of Kshs.2,238,578,663 funded by grants from Government of Kenya as follows; Consultancy services for feasibility study (Kshs.40,538,000); Consultancy services for the environmental and social impact assessment (Kshs.3,952,707);

Compensation for land acquired from the local community (Kshs.321,411,456); Consultancy services for conveyance services (Kshs.24,456,000); Consultancy services for supervision (Kshs.152,686,100); and Construction of irrigation systems (Kshs.1,695,534,400).

- 1.6.28 The tender committee awarded the tender for construction works for Lower Sio Irrigation Development Project to M/s. Lee Construction Co. Ltd at a tender price of Kshs.1,695,534,400. The project design had two phases: Phase I covering areas I, II and V and phase II covering areas III and IV. As at the time of the special audit, only phase I had been awarded to a contractor.
- 1.6.29 The scope of work for phase I included conveyance canals targeting 4,250 acres for area I, pumping systems covering rising mains, main lines and secondary canals targeting 5,000 acres for area II and combination of pumping and gravity systems consisting of rising mains, mainlines and secondary canals targeting 1,700 acres for area V. As at the time of this special audit, a total of Kshs.1,149,903,054 had been paid to the contractor.
- 1.6.30 It was established that the flooding had submerged the intake works for area II and there were also outstanding compensation issues which the NIB management estimated at Kshs.52,000,000. The NIB management had proposed a downscale of the project based on a hydrological assessment of the project. The project downscale was estimated to cost an additional Kshs.54,404,380.
- 1.6.31 As at the time of this special audit, the contractor was not on site and the following contractual work were pending:
- A site office consisting of two office blocks and a laboratory had been built, roofing and plastering of inner walls. However, the doors and windows had not been fitted, electrical fittings and septic water tank had not been done;
 - Although a pump house had been constructed, pumps had not been supplied and installed by the contractor;
 - The connection from the pump house to the rising main had not been done; and
 - The digging of the 11 km open canal had stalled. Some farmers along the canal had denied the contractor access due to land compensation related issues.

Chemase Irrigation Development Project: Nandi County

- 1.6.32 The tender committee discussed and approved the procurement of the works through restricted tendering from prequalified firms relying on Section 29 (3) and 73 (2) (b) of the PPDA, 2005. Section 73 (2) (b) of PPDA, 2005 allows use of restricted tendering in cases where there are only a few known suppliers of goods and services. M/s. Riang International Group Ltd was awarded the contract at a contract sum of Kshs.172,200,500. As at the time of completion of the special audit, the contractor had been paid a total of Kshs.62,007,703.
- 1.6.33 The project contract was signed on 16 April 2015 and the expected completion date was set at 16 April 2016. On 06 August 2016, the NIB Irrigation Engineers estimated the implementation level of the project as eighty-five (85%).
- 1.6.34 The engineers report further indicated that the project was behind schedule due to delays in paying the project contractor. Consequently, the contractor had requested for extension of contract.

South West Kano Irrigation Scheme Development Project: Kisumu County

- 1.6.35 On 30 April 2013, the Scheme Manager for Western Kenya Region wrote a letter Ref No. WKIS/ADM/4 to General Manager NIB, requesting NIB to facilitate rehabilitation works in the scheme due to bad state of scheme check gates, leading to poor and lack of efficient water management, lack of paddy store for the scheme and poor road network in the scheme.
- 1.6.36 On 30 January 2013, the tender committee approved the contractor to be procured by use of restricted tendering method based on a list of prequalified firms in accordance with Section 29 (3) and 73 (2) (a) of the PPDA, 2005. Section 73 (2) (b) of PPDA, 2005 which allows for the use of restricted tendering in cases where there are only a few known suppliers of goods and services.
- 1.6.37 Consequently, NIB awarded the tender to M/s. Property World Ltd at a contract price of Kshs.123,824,466. As at the time of completion of the special audit, the contractor had been paid a total of Kshs.123,778,150. The project had been completed in June 2016.

Mirichu Murika Irrigation Scheme Development Project: Muranga County

- 1.6.38 The project was allocated a total of Kshs.246,041,209 in the development budgets for the financial years 2010/2011 to 2015/2016 and was implemented in three phases. The Nature of the work involved construction of intake works and conveyance system at a contract sum of Kshs.160,535,658.
- 1.6.39 The contract was awarded to M/s. Benisa Limited at a total of Kshs.160,535,658. As at the time of completion of this special audit, a total of Kshs.152,140,633 had been paid to the contractor. A site inspection conducted by the special audit team established that construction of the main pipeline, gulley and road crossing was complete, however production had not commenced since the distribution pipelines had not been completed. NIB management indicated that the project had not been completed due to cash flow and liquidity challenges.

Value for Money

- 1.6.40 A total of Kshs.11,912,672,043 was incurred by NIB for construction works for the projects under review. Due to time and resource constraint, the special audit inspected projects of total contract value of Kshs.11,586,592,962 representing ninety six (96%) of NIB Capital Project Portfolio under review with a view to test Value for Money. The projects were deemed high risk due to high contract sum and allegations of non-existence.
- 1.6.41 Value for money auditing examines whether public institutions or government programs have attained effectiveness, economy and efficiency in the management of resources at their disposal.
- 1.6.42 Effectiveness is the extent to which objectives have been achieved and the relationship between the intended and actual impacts of activities. In this special audit, effectiveness was determined by: Confirming whether the project existed on the ground; and whether it was in production as anticipated in the feasibility study
- 1.6.43 Economy refers to acquiring resources at the lowest cost while having due regard to quality. Economy was determined by: Evaluating whether or not the procurement process used to identify project contractors was done in a manner that promotes competition to ensure project goods and services were acquired at

the lowest cost while having due regard to quality. Quality was ascertained by seeking an expert Opinion from Irrigation Engineers.

- 1.6.44 The special audit considered a project to have realized Value for Money if it attains both effectiveness and economy. In this regard, projects amounting to Kshs.550,615,465 were deemed to have realized Value for Money since the procurement process was done in a manner that promoted competition thereby maximizing on economy and efficiency as articulated in Section 2 (a) of the PPDA, 2005. Further, technical audits by Irrigation Engineers engaged by the special audit established that the quality of work was done as per the specifications and the projects were in production as anticipated in respective feasibility studies. The projects were: Nadoto, Kolyoro, Nadapal, Kalemnyang phase I & II and Turkwel Irrigation projects all in Turkana County and South West Kano Irrigation project in Kisumu County.
- 1.6.45 Projects amounting to Kshs.215,387,201 in Turkana County had not realized Value for Money since they had not been put into production due to structural destructions of the project components. This included Katilu Drip Irrigation project, Morulem phase I & II, Nakamane and Naremit Irrigation Projects.
- 1.6.46 Galana Kulalu Food Security project amounting to Kshs.8,249,275,475 had not realized Value for Money either since production was significantly below the projected threshold. Further, the special audit noted that project contractor was not identified in a competitive manner. Hence not meeting the threshold of effectiveness and economy.
- 1.6.47 Contractual work for, Lokipetot Irrigation Project (Turkana County), Chemase Irrigation Project (Nandi County), Lower Sio and Mirichu Murika Irrigation projects whose contract sum was Kshs.2,571,314,821 were still ongoing and therefore Value for Money could not be established. Some of this projects like the lower Sio were having implementation challenges (Contractor was not on site as at the time of audit) that could compromise the ability of the project to realize value for money.
- 1.6.48 Generally, the special audit noted the following risks that could hinder sustainability of the projects: Inadequate Operation and Maintenance strategy leading to siltation; absence of flood protection structures that could lead to

destruction of project components, inadequate farming skills among farmers and underfunding of projects.

1.7 Irregularities, Weakness and Managerial responsibilities

The following irregularities were observed during the audit:

Irregularity/Weakness	Risk /Law violated	Contract Value (Kshs.)	Responsibility
Project identification & planning			
Failure to conduct feasibility studies in the following projects: Katilu, Kalemnyang phase I & II, Chemase and Nakamane Irrigation Schemes.	Inadequate project appraisal and risk management strategies that may lead to project failure	430,609,436	NIB Management
Procurement process			
Failure to consistently apply evaluation criteria for Nadapal Irrigation Project resulting in MS Jomat Construction Ltd being declared responsive yet the bidder had not attached a certificate of incorporation	section 64(1) of the PPDA,2005 that provides that a tender is responsive if it conforms to all mandatory requirements	63,983,393	Evaluation Committee
Failure to apply an objective and quantifiable evaluation criteria in evaluating bids	Section 66 (3 (a) of PPDA ,2005 that requires the evaluation criteria to be objective and quantifiable	11,912,175,169	Evaluation Committee
Failure to conduct evaluation of Nadapal Irrigation Project within the 30 days stipulated in law	Regulation 16 (5) (b) of PPR ,2006 requires evaluation of tenders to be done within 30 days after opening of the bids	63,983,393	Evaluation Committee
Entering into contract for Kalemnyang phase I, Lobarot and	Section 68 (1) of the PPDA,2005 that	216,675,351	NIB Management

Irregularity/Weakness	Risk /Law violated	Contract Value (Kshs.)	Responsibility
Kabulkor Irrigation projects, at a contract price that doesn't take into consideration correction of arithmetic errors.	requires the contract price to include any corrections made		
Direct invitation of RFP for Katilu Drip Irrigation Project instead of advertising the Expression of Interest (EOI) before invitation of RFPs	Sections 78 (1) of PPDA,2005.	62,429,691	NIB Management

1.8 Conclusion and Recommendation

1.8.1 During the period under review, a total projects portfolio amounting to Kshs.18,601,614,394 had been planned and approved by NIB management for implementation. However, due to liquidity challenges, only Kshs.11,912,672,043 was disbursed to the projects translating to underfunding of project activities by Kshs.6,688,942,351. This led to scale down of various project activities thereby failing to achieve the full potential of the projects.

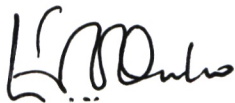
1.8.2 The special audit observed cases whereby some projects were not supported with feasibility studies to ascertain their viability while in some cases violations of the PPDA, 2005 were noted. Further some projects did not demonstrate adequate public participation contrary to Section 201 of the Constitution of Kenya, 2010.

1.8.3 In all projects reviewed in regard to Turkana County, there was absence of adequate Operation and Maintenance Strategy among Community members that had resulted in structural damages of the projects and minimal involvement of County Government in project implementation.

1.8.4 It is recommended therefore, that:

- NIB should design and construct major flood protection structures in all projects in Turkana County to mitigated against risks of flooding that may hamper effectiveness of the projects.

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- NIB Management and project beneficiaries should put in place measures to ensure continuous bush clearing of project sites in Turkana County to ensure farmers put into use irrigable land.
 - NIB Management should enforce legal interventions on the project contractor for Katilu Drip Irrigation to ensure the remaining works are completed and public funds invested in the project realize returns to investment/ Value for Money.
 - A National Irrigation Policy should be developed to clearly define the roles of both National and County Governments in management of irrigation projects. This will ensure that County Governments participate in financing and capacity building of Irrigation Projects at County levels to ensure sustainability.
 - Community members should be assisted to develop and implement a vibrant Operation and Maintenance Strategy that will ensure periodic desilting of the intakes and the canal.
 - Special investigation into the direct procurement process for the mega projects where cost is significant, and especially Galana-Kulalu where documents were not readily available, and there was inadequate segregation of duties in the project contract management and thus no control on the project costing.
 - NIB should include environmental conservation strategies in implementation of its projects. This will not only lead to project sustainability, but it may also contribute to realization of Social Development Goals (SDGs).



FCPA EDWARD R. O. OUKE, CBS
AUDITOR – GENERAL

12 JULY, 2019

2 INTRODUCTION

2.1 Background information

- 2.1.1 The National Irrigation Board (NIB) was established and incorporated in 1966 as a state corporation through the Irrigation Act, Cap 347 of the Laws of Kenya. The Act mandates NIB to provide for the development, control and improvement of irrigation schemes, for the purpose incidental thereto and connected therewith.
- 2.1.2 The Economic pillar of the Kenya Vision 2030 outlines various strategies of raising income through increasing value in Agriculture. One such strategy is to put a million hectare of uncultivated land into production through irrigation. NIB among other institutions implements this strategy by executing, maintaining and sustaining irrigation projects in Kenya.
- 2.1.3 On 26 April, 2016, the Member of Parliament (MP) for Loima Constituency presented a petition to Parliament alleging financial imprudence, financial impropriety and allocation of resources to non-existent projects leading to abandonment of works by contractors in NIB Projects implemented in Turkana County. The specific projects alleged to have been mismanaged are detailed in **Appendix I**.
- 2.1.4 Subsequently, Parliament Investment Committee recommended that the Auditor - General undertakes a performance audit on the capital works on ALL irrigation projects undertaken by NIB in Turkana County, its environs and countywide with a view to ascertaining their level of implementation and value for money.
- 2.1.5 Performance audit also known as Value for Money audit refers to an independent examination of programs, management systems and procedures of an entity to assess whether the entity is achieving economy, efficiency and effectiveness in the employment of available resources.
- 2.1.6 Effectiveness is the extent to which objectives have been achieved and the relationship between the intended and actual impacts of activities. In this special audit, effectiveness was determined by: Confirming whether the project existed on the ground; and whether it was in production as anticipated in the feasibility study.
- 2.1.7 Economy refers to acquiring resources at the lowest cost while having due regard to quality. Section 2(a) of the PPDA,2005 provides that the purpose of the PPDA is

to promote competition and fairness in the procurement process so as to enhance economy and efficiency. In this regard, the special audit determined economy and efficiency by: Evaluating whether or not the procurement process was done in a manner that promotes competition to ensure project goods and services were acquired at the lowest cost while having due regard to quality. Quality was ascertained by seeking expert opinion from Irrigation Engineers.

2.1.8 In view of time and resource constraints, the special audit covered ALL projects in Turkana County and also sampled five additional projects selected in a manner to ensure fair regional representation of NIB projects in the Country as follows:

Table 1: Scope of Work for the Special Audit

	Particulars	Budget (Kshs)	Committed (Kshs)	Justification
1	16 Projects implemented in Turkana County	1,899,925,199	968,257,281	Allegations of financial imprudence
2	Galana Kulalu Food Security Project, Kilifi (Coast & North Eastern Region)	14,833,647,986	8,249,275,475	Sensitivity to the economy in terms of Food security and Public Debt & also representing Coast Region
3	Lower Sio Irrigation Project, Busia County (Western Region)	1,210,000,000	2,238,578,663	Sensitivity to the economy in terms of Food security and also representing Western Region
4	Chemase Irrigation Development project, Nandi County (Rift Valley Region)	192,000,000	172,200,500	Sensitivity to the economy in terms of Food security and also representing Rift Valley Region
5	South West Kano Irrigation Development Project, Kisumu County (Nyanza Region)	220,000,000	123,824,466	Sensitivity to the economy in terms of Food security and also representing Nyanza Region

6	Mirichu Murika Irrigation Project ,Muranga County (Central Region)	246,041,209	160,535,658	Sensitivity to the economy in terms of Food security and also representing Central Kenya Region
	Total	18,601,614,394	11,912,672,043	

2.2 Objectives

2.2.1 The objective of the special audit is to: Confirm or dispel allegations of financial mismanagement in the NIB projects implemented in Turkana and other selected Counties in Kenya, ascertain their level of implementation and value for money.

2.3 Terms of References

2.3.1 In order to achieve the above objectives, the special audit developed the following Terms of References to guide the audit.

- Review project identification and planning process;
- Review project budgets and financing in line with PFMA,2012;
- Review the project procurement process in line with PPDA ,2005 and Regulations of 2006;
- Review expenditures incurred in relation to the projects' in regard to PFMA ,2012;
- Establish whether project expenditures incurred realized Value for Money; and
- Identify irregularities, weakness and apportion managerial responsibilities.

2.4 Scope of work

2.4.1 The special audit covered the aforementioned irrigation projects implemented by NIB in various Counties. For each project, the special audit reviewed project identification and planning, project budgeting and financing, project procurement process and established whether the projects had realized Value for Money.

2.5 Source of information and audit procedures:

2.5.1 We obtained information based on the following audit procedures:

- a) Document examination: several documents were reviewed in the course of the audit. These included budgets, procurement records, payment vouchers and ledgers.

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- b) Data analysis: of budgets, procurement and expenditure transactions.
 - c) Key members of staff from operations, finance and procurement were interviewed as a way of gathering information. **Appendix II** details Officers interviewed during the special audit identified depending on the role they played.
 - d) Expert Opinion: The special audit engaged Irrigation Engineers from the defunct Ministry of Water and Irrigation to opine on quality and quantity of work done.
 - e) Project inspection: The special audit conducted site visits and inspection in projects detailed in **Appendix V**. This projects were deemed high risk due to their size, allegations of nonexistence and procurement irregularities observed.

3 DETAILED FINDINGS

3.1 Project identification and planning

3.1.1 The NIB had in place Standard Operating Procedures (SOPs) to guide the process of identification of development projects. The SOPs provided that the projects could either be initiated as a results of requests from community members or through NIB's own initiatives/ expansion programs.

3.1.2 The projects under review were initiated as follows:

Table 2: Project initiation

Triggering factor	Name and Location of projects
Request from community	Chemase, Mirichu Murika and the following Irrigation Projects in Turkana County: Nadoto, Nadapal, Naremit, Lokipetot, Laborot and Kalemnyang (I & II), Kabulokor, Naoros, Kolyoro, Nakamane, Elelea/Lokubae and Katilu.
NIB / GOK initiatives	Turkwel and Morulem (I&II) both in Turkana County, Galana Kulalu Food Security Project, Lower Sio and South-West Kano Irrigation Projects

3.1.3 There was no evidence that NIB conducted feasibility studies to ascertain technical and economic viability of the following projects: Katilu, Kalemnyang phase I & II, Nakamane Irrigation Schemes and Chemase Irrigation Development Projects. The special audit noted that the absence of feasibility studies is an indication of inadequate project appraisal and risk management strategies that may results in allocation of public funds in non-viable projects leading to project failure and loss of public funds.

3.1.4 Galana Kulalu Food Security Project is a flagship project prioritized in the Kenya Vision 2030 that requires twenty thousand (20,000) acres of land in the Galana Rach in Kilifi and Tana River Counties to be put under irrigation.

3.1.5 The land was leased by NIB from Agriculture Development Corporation (ADC) for a period of five years with effect from 01 April 2013 at a cost of Kshs.3,000 per annum per acre translating to annual lease rentals of Kshs.60,000,000 (Kshs.300,000,000 for entire 5 years period). As at the time of completion of the audit, NIB had paid ADC a total of Kshs.150,000,000.

3.1.6 Feasibility study for Galana Kulalu Food Security Project was conducted by M/s. Agri-Green Consulting of Israel in Association with M/s. Enviroplan and Management Consultant (K) Ltd and M/s. Amiran (K) Ltd. These entities operating as a Consortium established that the project was viable and would support maize, sugarcane, fruits, dairy farming and fish production among others.

3.1.7 Feasibility study for Lower Sio Irrigation Project was conducted by M/s. Bhudhia Associates on behalf of the NIB. The special audit noted that the Consultant advised that the land was feasible for irrigation purpose. Also, the feasibility studies for the other projects were noted to have been done in-house by NIB.

3.2 Budgetary allocation and financing

3.2.1 A review of documents availed for the special audit established that during the period under review, NIB budgeted a total of Kshs.18,601,614,394 for implementation of the various projects under review as summarized below and detailed in **Appendix III**:

Table 3: Budgetary Allocation

	Particulars	Budget (Kshs)	Committed (Kshs)	Variance (Kshs)
1	Projects implemented in Turkana County	1,899,925,199	968,257,281	931,267,917
2	Galana Kulalu Food Security Project	14,833,647,986	8,249,275,475	6,584,372,511
3	Lower Sio Irrigation Project	1,210,000,000	2,238,578,663	-1,128,578,663

4	Chemase Irrigation Development project	192,000,000	172,200,500	19,799,500
5	South West Kano Irrigation Development Project	220,000,000	123,824,466	96,175,534
6	Mirichu Murika Irrigation Project	246,041,209	160,535,658	85,505,551
	Total	18,601,614,394	11,912,672,043	6,688,942,351

3.2.2 However, due to inadequate funding, only Kshs.11,912,672,043 was allocated to the projects under review resulting in a variance of Kshs.6,688,942,351 between budgetary allocations and actual project funding.

3.2.3 In this regard, the aforementioned projects implemented by NIB during the period under review, were under funded by Kshs.6,688,942,351 translating to an overall under funding of thirty five percent (35%). The NIB Management attributed the project underfunding to inadequate exchequer releases by the line Ministry.

3.2.4 Inadequate funding of irrigation projects pose a risk of hindrance to the realization of the Economic pillar of the Kenya Vision 2030 that requires a million hectare of uncultivated land to be put into production through irrigation.

3.2.5 Other than Galana Kulalu Food Security project that was co-funded by the Government of Kenya and Government of Israel, the rest of the aforementioned projects were funded by the Government of Kenya.

Financing of the Galana Kulalu Food Security project

3.2.6 The project was co-funded by the Governments of Kenya and Israel as follows:

Table 4: Financing of Galana Kulalu Food Security Project

Particulars	Amount (USD)	Amount (Kshs)		
		Insurance fee	Direct project costs	Total
Government of Israel	71,408,014	701,251,190	5,368,430,000	6,069,681,190
GOK	67,368,355	0	5,726,310,200	5,726,310,200
	138,776,369.	701,251,190	11,094,740,200	11,795,991,390

- 3.2.7 On 31 January 2014, a meeting between the officials of the MOALF, ADC and NIB chaired by the then Cabinet Secretary, Mr. Felix Koskei discussed and agreed that the “Government to Government” arrangements needed to be facilitated to enable the Israel Government facilitate Kenyan Government access funding for construction phase of the project.
- 3.2.8 On 31 August 2015, the Government of Kenya represented by the CS National Treasury, Mr. Henry Rotich signed a commercial credit loan agreement amounting to USD.71,408,014(Kshs.6,069,681,190) with Bank Leumile- Israel B.M of which USD.63,158,000 (Kshs.5,368,430,000) was to be used to finance part of the contract price for construction works while USD.8,250,014 (Kshs.701,251,190) was to be used for the purpose of paying insurance premium to the Israel Foreign Trade Risks Insurance Corporation Ltd (ASHRA).
- 3.2.9 The Office of the Attorney-General cleared the agreement vide a letter referenced AG/CONF/16/152 VOL II (4) dated 13 August ,2015.
- 3.2.10 The special audit reviewed a loan repayment schedule availed by the National Treasury and observed that out of the total borrowed loan amount of USD.71,408,014 , only USD.26,406,642 had been disbursed as at 31 December 2016 while the outstanding balance of USD 45,001,371 had been projected to be disbursed at diverse dates as follows:

Table 5: Projected Loan Disbursement Schedule for GKFSF

s/no	Date	Amount (USD)
1	30 June 2017	11,250,342
2	30 June 2018	28,125,857
3	30 June 2019	5,625,171
		45,001,371.

3.2.11 Records at the National Treasury further indicated that the total cost of the loan was projected at USD.20,000,957 as follows:

Table 6: Cost of Borrowing for GKFSF loan

s/no	Particulars	Amount (USD)	Remarks
1	Insurance premium	8,250,014	Paid in full as at 31.12.2016
2	Projected interest cost	10,967,040	USD.323,096 paid as at 31.12.2016
3	Commitment fee	498,271	USD 202,075 paid as at 31.12.2016
4	Other forecasted costs	285,632	No payment made as at 31.12.2016
		20,000,957.	

3.2.12 Section 3(a) of the loan agreement provides that disbursements of the loan amount of USD.71,408,014 will be made by Bank Leumile-Israel B.M to project contractor(Green Arava Ltd) on receipt of original duly completed request for disbursement signed by the National Treasury of Kenya and to ASHRA upon receipt of an invoice issued by ASHRA for ASHRA's premium covering goods and services rendered under the commercial contract and NIB's certificate.

3.2.13 As at the time of completion of the audit, payment vouchers amounting to USD.30,968,107 had been forwarded by the National Treasury to Bank Leumile-

Israel B.M to facilitate payments to the contractor as provided for in section 3(a) of the loan agreement.

3.3 Procurement process

- 3.3.1 The PPDA ,2005 and PPR, 2006 establishes procedures for procurement by public entities. Section 2 of the PPDA ,2005 provides that the purpose of this procedures is to maximize economy & efficiency in public procurement and also to promote integrity, fairness, transparency and accountability in management of public resources.
- 3.3.2 The special audit reviewed procurement process of projects implemented by NIB within the scope of the audit. The purpose of the review was to establish whether the process complied with PPDA ,2005 and PP&DR ,2006 thereby maximizing on economy & efficiency in public procurement.
- 3.3.3 For each project, the reviews were done at three levels: Pre-tendering, tendering and post tendering levels. Pre-tendering involved procurement planning, budgeting and user requisitions, tendering involved invitations to tender, opening, evaluation, award and signing of contract while post tendering involved contract management.
- 3.3.4 During the period under review, NIB had incurred a total of Kshs.11,912,672,043 on various procurements for consultants and contractors as follows:

Table 7: Amounts incurred on various projects

	Particulars	Amount (Kshs)
1	Projects in Turkana County (Appendix I)	968,257,281
2	Galana Kulalu Food Security Project	8,249,275,475
3	Lower Sio Irrigation project	2,238,578,663
4	Chemase Irrigation project	172,200,500
5	South West Kano Irrigation Scheme	123,824,466
6	Mirichu Murika Irrigation Project	160,535,658
		11,912,672,043

A. PROJECTS IN TURKANA COUNTY

1. Nadapal Irrigation Project

Pre-tendering

3.3.5 On 11 January 2012, Eng. R.M.Kanui, the Small holder project coordinator raised a requisition vide a memo referenced GM/G/314 for procurement of construction works for Nadapal Irrigation Project among others. Pursuant to Regulation 22 of PPR, 2006, the request was subsequently approved by the Deputy General Manager.

3.3.6 Consequently, the project was captured in the NIB annual procurement plan for financial year 2011/2012. The procurement plan indicated that NIB was to procure a contractor through open tendering method for construction works of 100 acres of land in Turkana, County.

Tendering

3.3.7 On 20 January 2012, NIB advertised an open international tender for construction works of the Nadapal Irrigation Project in Turkana County. The tender was published in three newspapers: The Daily Nation, the Star and the Standard Newspapers.

3.3.8 Tenders closed and opened on 21 February 2012. A review of the tender opening register and minutes established that eleven bidders responded as detailed in **Appendix IV.**

3.3.9 Tender evaluation was carried out at three levels: Preliminary evaluation, broad technical evaluation and financial evaluations. At preliminary evaluation level, responsive firms were required to avail evidence of: Physical location, contact address, tender security, certificate of incorporation/ registration, tax compliance and valid trading licenses. Consequently, two firms: MS Maiguria General Contractors and MS Perma Structural Engineering Co. Ltd were declared non-responsive for failure to provide tender security in the manner and form prescribed in the tender document.

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- 3.3.10 Nine bidders proceeded to broad technical evaluation stage. Included in the nine bidders declared responsive was MS. Jomat Construction Ltd. The special audit established that though MS Jomat Construction Ltd had not attached a certificate of incorporation and the same noted by the evaluation committee, the same committee declared the bidder responsive contrary to section 64(1) of the PPDA,2005 and the preliminary evaluation criteria.
- 3.3.11 Broad technical evaluation was done based on the following criteria: past experience, qualification and experience of key personnel, evidence of ownership or hire of plants and equipment for executing the work, adequacy of the proposed methodology, work schedule and financial capacity.
- 3.3.12 Section 66 (3(a) of PPDA ,2005 requires the evaluation criteria to be objective and quantifiable. Contrary to this requirement, the bids were subjectively evaluated based on qualitative attributes of pass/fail.
- 3.3.13 Regulation 16 (5) (b) of PPR ,2006 requires evaluation of tenders to be done within 30 days after opening of the bids. The bids were opened on 21 February 2012 (30 days elapsed on 21 March 2012) while evaluation report was dated 10 May 2012. NIB did not therefore evaluate the bids within 30 days from date of tender opening contrary to Regulation 16 (5) (b) of PP& DR ,2006.
- 3.3.14 According to the evaluation report, two bidders' M/S Toshe Construction and Engineering Ltd and MS Manyota Ltd passed the evaluation criteria and proceeded for financial evaluation.
- 3.3.15 The evaluation committee recommended MS Toshe Construction Engineering Ltd for the award tender at a tender sum of Kshs.63,983,393 having been the lowest evaluated bidder.
- 3.3.16 On 10 May 2012, the tender committee awarded the tender to MS Toshe Construction and Engineering Ltd at Kshs.63,983,393. The tender committee also confirmed that Kshs.65,000,000 had been allocated for the project. Both successful and unsuccessful bidders were notified on 23 May ,2012.

Post tendering

- 3.3.17 NIB and MS Toshe Construction and Engineering Ltd entered into a contract on 11 July 2012. According to the contract, the total project costs was Kshs.63,983,393.

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- 3.3.18 Records at NIB indicated that the project was completed on 17 September 2013. Out of the contract sum of Kshs.63,983,393 ,NIB had paid the contractor an amount of Kshs.56,008,510 resulting in a variance of Kshs.7,974,882 between the contract sum and amounts paid.
- 3.3.19 The then Resident Project Engineer explained that this comprised utilized contingency amount of Kshs.5,816,672 and un-implemented activities in the bill of quantities amounting to Kshs.2,158,212 .He did not however specify the specific activities not implemented.
- 3.3.20 The key project components as per the contract agreement between NIB and MS Toshe Construction Engineering Ltd were: Intake works, Conveyance, Hydraulic Structures, Drains, Perimeter fence, floods protection and land preparation. An audit inspection conducted by a team of Engineers engaged by the special audit established that work had been executed as per the contract.

2. Kalemnyang' Irrigation Scheme Project (Phase I)

Pre-tendering

- 3.3.21 Procurement for construction works of the Kalemnyang' Irrigation Scheme Development project (Phase I) had been captured in the NIB Annual Procurement plan for financial year 2011/2012. According to the procurement plan, the project contractor was to be procured through restricted tendering method.
- 3.3.22 Subsequently, a request to initiate procurement process was raised and approved by NIB tender committee on 07 May 2012. The tender committee also approved use of restricted tendering methods to procure the contractor. According to the minutes of the tender committee, the nature of the work was specialized and therefore needed to restrict the tendering to only prequalified contractors as provided in section 73(2a) of PPDA ,2005.
- 3.3.23 The tender committee approved the following fourteen prequalified firms to be invited to bid: MS Jomikoka Construction Ltd, MS Eldimex (K) Ltd, MS Nakuru Express Supplies and Services Ltd, MS Yellow House Ltd, MS Libex Construction Co. Ltd, MS Crater Enterprises and Supplies Ltd, MS Machine Centre, MS Elton Techno, MS Paa Building, MS Grane Construction & Engineering Company, MS Rotalink

Engineering Company, MS Waza Rural Services, MS Toshe Construction and Engineering Ltd and MS Dicom Engineering Ltd.

Tendering

- 3.3.24 Invitation to tenders were made on 25 May 2012 to the aforementioned prequalified firms approved by the tender committee. According to minutes of the tender opening committee, tenders closed and opened on 15 June 2012 with five firms returning their bids as detailed in **Appendix IV**.
- 3.3.25 Tender evaluations were done at three levels: Preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, certificate of incorporation, tax compliance and valid trading license. Two bidders, MS Grane Construction & Engineering Company and MS. Paa Building Services were declared non-responsive for failure to provide tender security in the required form and also failure to provide valid tax compliance certificates.
- 3.3.26 It was however noted that the mandatory evaluation requirements were not applied fairly and uniformly among all the bidders contrary to section 64(1) of the PPDA,2005. MS Nakuru Express Supplies and Services Ltd had not attached Certificate of Registration yet they were declared responsive.
- 3.3.27 The remaining three bidders (MS Nakuru Express Supplies & Services Ltd, MS Rotalink Engineering Company Ltd and MS Yellow House Ltd) proceeded for technical evaluation. Technical evaluations were conducted based on the following criteria: Past experience, qualification and experience of key personnel, proof of ownership or lease of key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and average volume of construction in the last five years.
- 3.3.28 The firms were scored as either ok (for those that met required criteria) or Not ok (for those that failed to meet the required criteria). Section 66(3) of the PPDA ,2005 requires evaluation criteria to be objective and quantifiable. On the contrary, this criterion was not quantifiable and therefore contravened section 66(3) of the PPDA ,2005

3.3.29 According to minutes of the evaluation committee, two bidders MS Rotalink Engineering Company Ltd and MS Yellow House Ltd passed the evaluation criteria and proceeded for financial evaluation.

3.3.30 The committee conducted financial evaluation by correcting arithmetic errors and then ranking the two responsive bidders according to their bid prices as follows:

Table 8: Financial Evaluation –Kalemnyang Irrigation Project

Name of bidder	Bid sum (Kshs)	Corrected sum (Kshs)	Variance (Kshs.)	Rank
MS Yellow House Ltd	92,990,077	91,864,255	1,125,821	1
MS Rotalink Engineering Co. Ltd	101,553,882	98,905,380	2,648,501	2

3.3.31 MS Yellow House Ltd was found to be the lowest evaluated responsive bidder and was recommended for award of the tender at a tender sum of Kshs.92,990,077.

3.3.32 The tender committee meeting held on 28 June 2012 awarded the tender to MS Yellow House Ltd at a contract price of Kshs.92,990,077. Subsequently, notifications were sent to both successful and unsuccessful bidders on 20 July 2012 which culminated into signing of a contract between the two parties on 15 August 2012.

3.3.33 Section 68 (1) of the PPDA,2005 requires the procuring entity and the successful bidder to enter into written contract based on the tender document, the successful tender and any corrections of arithmetic errors made in the tender. As earlier noted, the evaluation committee corrected arithmetic errors amounting to Kshs.1,125,821 in the bid for MS Yellow House Ltd thereby reducing the corrected tender sum from Kshs.92,990,077 to Kshs.91,864,255.

3.3.34 However, on 15 August 2012, NIB entered into contract with MS Yellow House Ltd at a contract sum of Kshs.92,990,077 instead of the corrected price of Kshs.91,864,255 .

Post tendering

- 3.3.35 A review of payment records, established that a total of Kshs.92,911,533 had been paid as values of work done resulting in a variance of Kshs.78,544 between contract sum and amounts paid to the contractor. The NIB management explained that this amounts represented a cost saving to NIB.
- 3.3.36 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PP&DR,2006.
- 3.3.37 The project agreement required the contractor to execute the following works: Intake works, Conveyance, Hydraulic Structures, Drains, Perimeter fence, floods protection and land preparation. An audit inspection conducted by a team of Irrigation Engineers engaged by the special audit established that work had been done as per contract.

3. Kalemnyang' Irrigation Scheme Project (Phase II)

Pre- tendering

- 3.3.38 The project was prioritized in the NIB Annual Procurement Plan for financial year 2013/2014. According to the plan, procurement of civil works was to be done through Open National Tendering.
- 3.3.39 Subsequently, a request for procurement was raised and approved by NIB tender committee on 19 September 2013. The tender committee further directed that the tender be reserved for Kenyan Citizen Contractors in fulfilment of the provisions of the Public Procurement and Disposal (Preference & Reservations) Regulations ,2011. In this regard, the invitation to tender was to state that the tender is reserved for Kenyan Citizen Contractors.

Tendering

- 3.3.40 The tender was advertised in the daily Nation of 20 September 2013 and opened on 15 October 2013. According to the tender opening minutes, eighteen bids were received and opened as detailed in **Appendix IV**.

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- 3.3.41 Tender evaluations were carried out at three levels; preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, certificate of incorporation, tax compliance, valid trading license and power of Attorney.
- 3.3.42 The following five bids were declared responsive: MS. Mbiwa Construction Company Ltd, MS. Landmark Holding Ltd, MS. Syncrolite General ContractorsLtd, MS. Nakims Merchants & Contractors Ltd and MS. Lumbe Agencies ltd. All the remaining bids were declared non-responsive for failure to comply with preliminary evaluation requirements.
- 3.3.43 The five responsive bidders proceeded for technical evaluation. Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, proof of ownership or lease of key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and average volume of construction in the last three years. Bidders were scored as either **passed** or **failed**.
- 3.3.44 According to minutes of tender evaluation only two bidders MS Lumbe Agencies Ltd and MS Landmark Holdings Ltd passed the technical requirements and therefore proceeded for financial evaluation. At financial evaluation stage, MS Lumbe Agencies Ltd was found to be the least evaluated responsive bidder and was recommended for award of the tender at a contract sum of Kshs.43,635,955.
- 3.3.45 The special audit established that the evaluation criteria used were also not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005. Further, there was no evidence that each member of the technical evaluation committee evaluated independently from the other members prior to sharing his/her analysis / ratings with the other members contrary to Regulation 16(6) of PP&DR ,2006.

Post tendering

- 3.3.46 On 28 February 2014, a contract for construction works for Kalemnyang' Irrigation Scheme Project (Phase II) was signed between NIB and MS Lumbe Agencies Ltd at a contract sum of Kshs.43,635,955.
- 3.3.47 On 21 November ,2014 a request to amend the contract by Kshs.10,633,213 was submitted to the tender committee. The additional amount was in regard to

construction of a riverbank protection and flood control structures. The tender committee approved the variation of contract from the original amount of Kshs.43,635,955 to Kshs.54,269,168 resulted in a variation of contract amount by 24%.

- 3.3.48 A review of payment records, established that out of the contract sum of Kshs.54,269,168, the contractor had been paid a total of Kshs.50,195,738 resulting in a variance of Kshs.4,073,430 between the contract sum and amounts paid. Records at NIB indicated that this variance comprised a fifty percent retention fee of Kshs.2,509,787 due to the contractor while the balance of Kshs.1,563,643 could not be explained by the management.
- 3.3.49 An audit inspection conducted by a team of Irrigation Engineers engaged by the special audit established that that work had been done as per the contract.
- 3.3.50 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.

4. Katilu Drip Irrigation Development project

Pre- tendering

- 3.3.51 The project was captured in the NIB Annual Procurement Plan for financial year 2011/2012. On 20 July 2011, NIB Irrigation Officer Mr. Felix Shiundu presented a request for procurement of the design and supply of materials, construction/installation, testing and commissioning of drip irrigation system for the project. The Tender Committee approved procurement of the Works through National Competitive Bidding by use of Request for Proposals (RFP).

Tendering

- 3.3.52 On 02 August 2011, invitation for bids through Requests for Proposals (RFP) was made in the daily nation. An addendum was issued by NIB extending bid submission deadlines from 23 August 2011 to 13 September 2011. The addendum was published in both daily nation and standard newspapers of 22 August 2011. It was however observed that NIB directly invited RFP instead of advertising the

Expression of Interest (EOI) before invitation of RFPs contrary to sections 78-86 of PPDA,2005.

3.3.53 The scope of work involved design and drawings, supply equipment and materials and install and commission appropriate drip irrigation system for 50 acres.

3.3.54 On 23 August 2011, the proposals were opened with seven bidders responding to the RFP as detailed in **Appendix IV**. Subsequently, evaluation of proposals was conducted and the set minimum technical score for firms to be considered responsive was seventy-five (75%). Only four firms, MS Mutahi Engineering Services (75%), MS. Irrico International Ltd (75%), Appropriate Development Consultants (86%) and MS. Jain Irrigation Systems (76%) attained the minimum score.

3.3.55 On 25 November,2011, financial proposals were opened and respective financial scores¹ established as follows:

Table 9: Financial Evaluation Katilu Irrigation Development Project

	Bidder	Bid price (Kshs.)	Financial score (%)
1	MS. Irrico International Ltd	41,979,311	100
2	MS. Jain Irrigation System	46,019,206	88
3	MS.Mutahi Engineering Services	49,911,750	81
4	Appropriate Development Company Ltd	61,429,691	66

3.3.56 Subsequently, total scores were computed as an aggregate of both technical and financial scores as follows:

Table 10: Combined Scores - Katilu Irrigation Development Project

	Bidder	Technical score -St (%)	Weighted technical score -(St * T%)	Financial Score-Sf %	Weighted financial score (Sf*P%)	Total score
1	MS. Irrico International Ltd	75	60	100	20	80

¹ Financial Score= $100 * (F_m \div F)$: Where; F_m is the lowest priced financial proposal and F is the price of proposal under consideration.

	Bidder	Technical score -St (%)	Weighted technical score -(St * T%)	Financial Score-Sf %	Weighted financial score (Sf*P%)	Total score
2	MS. Jain Irrigation System	76	60	88	18	78
3	MS. Mutahi Engineering Services	75	60	81	16	76
4	MS. Appropriate Development Company Ltd-ADCL	86	68	66	13	81

3.3.57 The weights given to the technical (T) and financial proposal were 0.8 and 0.2 respectively. The total score is a summation of weighted technical and financial scores.

3.3.58 The evaluation committee recommended ADCL to be awarded the tender at a tender sum of Kshs.61,429,691. Consequently, the tender committee meeting held on 20 December 2011 awarded the tender to ADCL as recommended by the evaluation committee. Both successful and unsuccessful bidders were notified on 30 January 2012.

3.3.59 On 12 March 2012, NIB and ADCL entered into a contract agreement for the design, supply of materials, construction, installation, testing and commissioning of Drip Irrigation System for Katilu Irrigation Development Project at a contract sum of Kshs.61,429,691.

Post tendering

3.3.60 A review of payment records, established that out of the contract sum of Kshs.61,429,691, NIB had paid the contractor a total of Kshs.49,702,178 to the project contractor. The then Resident Engineer explained that the difference of Kshs.11,727,513 represented values of uncompleted work as a result of the contractor abandoning the site. Irrigation Engineers engaged by the special audit valued the uncompleted work at Kshs.11,401,015.

3.3.61 The uncompleted work included: Drilling of shallow abstraction wells, supply and installation of pumps and generator sets, installation of twenty-five tanks, installation of drip irrigation, training and operation of farm cropping period.

3.3.62 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.

3.3.63 The NIB management did not provide the reason why the contractor had not abandoned the site, they however explained that plans were underway to procure a new contractor to complete the works.

5. Kabulokor Irrigation Project

Pre-tendering

3.3.64 The project had been captured in the annual procurement plan for financial year 2011/2012 at an estimated cost of Kshs. 50,000,000. On 11 January 2012 the Small Holder Project coordinator raised a procurement requisition for the project contractor. The request was subsequently approved by the Deputy General Manager.

3.3.65 On 13 January 2012, the Engineering Department presented a request to the tender committee for procurement of construction works. The tender committee approved the request

Tendering

3.3.66 Subsequently, the tenders were advertised in the Daily Nation, Star and the Standard Newspapers of 20 January 2012 with the tenders closing on 14 February 2012. The deadline was later extended to 21 February 2012.

3.3.67 Tender opening committee was appointed on 16 February 2012 vide a letter referenced C/P/197 Vol. XXI comprising Vincent Kabuti, Edwin Manyonge, Felix Shiundu and Stephen Apome.

3.3.68 The special audit reviewed the tender opening register and established that fourteen firms bid for the tender as detailed in **Appendix IV**.

3.3.69 Evaluation of bidders were done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, certificate of incorporation, tax compliance and valid trading license. According to the tender evaluation minutes MS Perma Structural Engineering Company, MS Beneda Enterprises and MS Sensei Ltd were disqualified for failure to provide tender security valid for a minimum of 150 as was required in the tender document.

3.3.70 The eleven responsive bidders proceeded for technical evaluation. Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, proof of ownership or lease of key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last five years. Bidders were scored as either passed or failed.

3.3.71 According to the minutes of the technical evaluation committee, only three bidders, MS Machine Centre Ltd, MS Manyota Ltd and MS Lumbe Agencies Ltd met the technical requirements and proceeded to financial evaluation.

3.3.72 It was however established that the technical evaluation criteria were not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.

3.3.73 Financial evaluations were conducted by correction of arithmetic errors and also comparing tender prices against engineers' estimates. Tenders that were not within a range of (+/-15%) of engineers estimates were considered non-responsive. The results were as follows:

Table 11: Financial Evaluation - Kabulokor Irrigation Project

	Firm	Engineers estimate (Kshs.)	-15% of Engineers estimate (Kshs.)	+15% of Engineers estimate (Kshs.)	Opened Bidders price (Kshs.)
1	MS Manyota Ltd	58,970,230	50,124,695	67,815,764	66,669,771
2	MS Machine Centre Ltd	58,970,230	50,124,695	67,815,764	70,491,937
3	MS Lumbe Agencies	58,970,230	50,124,695	67,815,764	59,169,863

3.3.74 Bid price for MS Machine Ltd was outside Engineers estimate and the bidder was therefore declared non-responsive. The committee further observed that the bids for the remaining two responsive bidders had some arithmetic errors that were corrected as follows:

Table 12: Correction of Errors - Kabulokor Irrigation Project

	Name of firm	Original price (Kshs.)	Corrected price (Kshs.)
1	MS Lumbe Agencies	59,169,863	59,795,727
2	MS Manyota Ltd	66,669,771	66,669,771

3.3.75 On 02 May 2017, MS Lumbe Agencies Ltd whose bid had errors was notified of the correction. The evaluation committee recommended the award of the tender to MS Lumbe Agencies Ltd at their quoted contract sum of Kshs.59,169,863

3.3.76 The tender committee meeting held on 03 May 2017 awarded the tender to MS Lumbe Agencies Ltd at a contract sum of Kshs.59,169,863 as recommended by the evaluation committee. Notifications to both successful and unsuccessful bidders were made on 17 May 2012.

3.3.77 Section 68 (1) of the PPDA ,2005 requires the contract price between the procuring entity and the successful bidder to take into consideration any correction of arithmetic errors made. During tender evaluation, the bid price for successful bidder (MS Lumbe Agencies Ltd) was found to have arithmetic errors and therefore corrected from their quoted price of Kshs.59,169,863 to corrected tender price of Kshs.59,795,727. However, the contract between MS Lumbe Agencies Ltd and NIB was entered to at an erroneous contract price of Kshs.59,169,863 contrary to Section 68 (1) of the PPDA ,2005

Post-tendering

3.3.78 A review of payment records, established that a total of Kshs.58,866,619 had been paid to the contractor resulting in a variance of Kshs.303,244 between the contract sum and amounts paid to the contractor. The then Resident Engineer explained that the variance represented a cost saving to NIB. The records further indicated

that the project was completed on 31 July 2013 and retention fee released to the contract upon expiry of defect liability period.

3.3.79 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.

3.3.80 The project contract required the contractor to execute the following works: Conveyance, hydraulic structures, rehabilitation of intake structure, division boxes and road crossings, drains, perimeter wall, flood protection, land preparations and construction of basins. Due to time and resource constraints, the project was not covered during inspection visits.

6. Morulem Irrigation Development Project (Phase I)

Pre-tendering

3.3.81 It was established that procurement for construction work for the project was captured in the Annual Procurement Plan for financial year 2011/2012. In this regard, on 11 January 2012, the Small Holder Project coordinator Eng. Kanui raised a procurement requisition number GM/G/314 for construction work of Morulem Irrigation Project. On the same day, the requisition was approved by the Deputy General Manager in charge of technical services.

Tendering

3.3.82 Invitation to tenders were advertised in the Daily Nation, the Standard and the Star Newspaper of 20 January 2012 with a tender closing date of 14 February 2012. The deadline was later extended vide an addendum dated 08 February 2012 to 21 February 2012.

3.3.83 Tenders were opened on 21 February 2012 with ten bidders detailed in **Appendix IV** responding to the bid. Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, certificate of incorporation, tax compliance and valid trading license.

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- 3.3.84 The following bidders were declared responsive while all the remaining bids were declared non-responsive for failure to comply with preliminary evaluation requirements since they did not provide the tender security in the required form. The responsive bidders were: MS. Manyota Ltd, MS. Line Enterprises Compant Ltd, MS. Nyana Engineering Co. Ltd, MS. Machine Centre Ltd and MS. Bomac Construction Services Ltd.
- 3.3.85 The six responsive bidders proceeded for technical evaluation. Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, proof of ownership or lease of key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last five years. Bidders were scored as either passed or failed.
- 3.3.86 According to minutes of the technical evaluation committee, only three bidders, MS.Nyana Engineering Works (Kshs.58,024,199), MS.Manyota Ltd (Kshs.66,109,513) and MS. Machine Centre (Kshs.65,933,688) Ltd met the technical requirements and proceeded to financial evaluation.
- 3.3.87 It was however established that the technical evaluation criteria used were also not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005 that requires the criteria to be objective and quantifiable.
- 3.3.88 The evaluation committee established that there were no arithmetic errors to be corrected and therefore proceeded to rank the bidders according to their bid prices.
- 3.3.89 In this regard, MS. Nyana Engineering Co. Ltd was found to be the lowest evaluated bidder and was recommended for award of the tender at a contract sum of Kshs.58,024,199.
- 3.3.90 A tender committee meeting held on 03 May 2012 awarded the tender as recommended by the evaluation committee. Notification to both successful and unsuccessful bidders were made on 17 May 2012.
- 3.3.91 On 29 June 202, a contract agreement was entered between NIB and MS. Nyana Engineering Co. Ltd at a contract sum of Kshs.58,024,199.

Post- tendering

- 3.3.92 A review of payment records, established that the contractor had been paid a total of Kshs.57,822,102 as values of work done as at the time of audit. This resulted in a variance of Kshs.202,097 between the contract sum and amounts paid to the contractor. This variance was not explained by the NIB management.
- 3.3.93 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.
- 3.3.94 According to the project contract, MS Nyana Engineering Co. Ltd was to execute the following works: Preliminary and general, intake works, conveyance canals, hydraulic structures, bush clearing and gully control.
- 3.3.95 An audit inspection conducted by the special audit established that though project components had been done as per the contract, the project had never been tested and was therefore not operational due to siltation of main canal.

7. Morulem Irrigation Scheme Project (Phase II)

Pre- tendering

- 3.3.96 Procurement for the project was captured in the Annual Procurement Plan for financial year 2013/2014. According the plan, procurement was to be done through National Open tender and the irrigation scheme was to cover an area of 250 hectares in Turkana County.
- 3.3.97 On 19 September 2013, the tender committee approved a request for procurement of construction works through National Open tendering. The tender committee further directed that the tender be advertised in three Newspapers: The Daily Nation, Standard and the Star Newspapers of 20 September 2013.

Tendering

- 3.3.98 Tenders were advertised on 20 September 2013 as directed by the tender committee. A review of the tender opening minutes established that tenders were opened on 15 October 2013 and twenty-four bidders responded as detailed in **Appendix IV.**

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- 3.3.99 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, proof of legal status through certificate of incorporation, tax compliance, valid trading license and power of Attorney.
- 3.3.100 Eighteen bidders were declared non-responsive for failure to comply with preliminary evaluation requirements. This included failure to provide satisfactory bid bond, failure to provide legal registration documents and failure to provide power of attorney.
- 3.3.101 Consequently, the following six responsive bidders proceeded for technical evaluation: MS. Tosha At General Construction Ltd, MS. Toddy Civil Engineering Co. Ltd, MS. Rine General Contractors, MS. Katulani Building Contractors, MS. Zonals Company Ltd, MS. Namorutunga Construction Co. Ltd.
- 3.3.102 Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last three years and financial capacity. Bidders were scored as either passed or failed.
- 3.3.103 According to the minutes of the technical evaluation committee, only one bidder, MS. Toddy Civil Engineering Co. Ltd met the technical requirement and proceeded for financial evaluation. It was however established that the technical evaluation criteria used was not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.
- 3.3.104 Financial evaluation was done by correcting arithmetic errors of the successful bidder, MS. Toddy Civil Engineering Co. Ltd. The bid price was corrected downwards from Kshs.54,128,470 to Kshs.47,576,870 (By Kshs.6,551,600). The evaluation committee recommended award of the tender to MS. Toddy Civil Engineering Co. Ltd at a contract sum of Kshs.47,576,870.
- 3.3.105 On 18 November 2013, the tender committee deferred the evaluation committees' recommendation for award of the tender. The tender Committee requested the evaluation committee to review the report with due consideration on the following issues and resubmit the report for consideration:

- The client, value, year, location and major components of the sated works experience
- The requirement that the power of Attorney be witnessed by a Commissioner for Oath / Advocate since the requirement was not explicitly stated.
- The Computation of financial capacity inform of the available liquid assets and/or credit facility in comparison with the sated requirements.
- The computation of average annual volume of construction works in the last three years and comparison with the sated requirements.

3.3.106 On 28 November 2013, the evaluation committee re-evaluated the tenders and prepared another evaluation report to the tender committee for reconsideration. We reviewed the report but did not come across any evidence that the aforementioned tender committee instructions were taken into account.

3.3.107 On the same date, the tender committee awarded the tender to MS. Toddy Civil Engineering Co. Ltd at a contract sum of Kshs.47,576,870 as recommended by the evaluation committee. Notification to both successful and unsuccessful bidders were made on 11 December 2013.

3.3.108 On 22 June 2014, NIB and MS. Toddy Civil Engineering Co. Ltd entered into a contract agreement for construction works of Morulem Irrigation Scheme Project (Phase II) at a contract sum of Kshs.47,576,870 . The project contract required the contractor to deliver on the following project components: Excavation of conveyance canals, construction of Division boxes, construction of Road crossings, fifty drops and the main drain.

Post- tendering

3.3.109 A review of payment records established that Kshs.39,535,965 had been paid to the contractor resulting in a variance of Kshs.8,040,905 between contract sum and amount paid. The then NIB Resident Engineer explained that this was as a results of some items in the bills of quantities not implemented by the contractor. The NIB Management did not however provide details of the specific activities not implemented.

3.3.110 An inspection by the special audit established that training of farmers had not been done and the main canal and conveyance had been overgrown by *mathenge trees*. Further, the project had never been tested and was therefore not operational.

3.3.111 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.

3.3.112 An inspection conducted by the special audit established that that trainings had not been conducted and the main canal and conveyance system had been overgrown by *mathenge trees*. Further, the project had never been tested and was therefore not operational.

8. Loborot Irrigation Scheme

Pre-tendering

3.3.113 Procurement for the project was captured in the Annual Procurement Plan for financial year 2012/2013. NIB had planned to procure a contractor for construction of civil works through restricted tendering method.

3.3.114 On 18 September 2012 the Engineering Department raised a requisition for initiation of the procurement process. The request was subsequently approved by the Deputy General Manager.

3.3.115 On 26 September 2012, the tender committee approved a request for procurement of construction works through restricted tendering. The tender committee cited the specialized nature of works as justification for use of restricted tendering pursuant to section 73 (2) (a) of PPDA ,2005.

3.3.116 On 10 July 2012, NIB wrote to the District Commissioner (DC) of the defunct Loima District requesting for a list of prequalified contractors. This was pursuant to section 32 of PPDA ,2005 that allows procuring agencies to use prequalified contractors of other state agencies. On 21 September ,2012 the DC replied giving a list of 24 prequalified contractors.

3.3.117 The Tender committee approved the twenty-four prequalified firms and further directed that ten firms detailed in **Appendix IV** selected from the twenty-four prequalified firms be invited to bid. The tender committee did not provide any justification/ objective criteria of selecting the ten firms out of the twenty-four prequalified firms.

Tendering

- 3.3.118 On 23 October 2012, bids were invited from the aforementioned bidders vide a letter referenced C/P/197 Vol. XXVI (79). Bids were opened on 02 November 2012 and only six bidders responded as detailed in **Appendix IV**.
- 3.3.119 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, certificate of incorporation, tax compliance and valid trading license. MS. Lumbe Agencies Ltd was declared non-responsive for failure to provide bid security in the required form.
- 3.3.120 The remaining five bidders proceeded for technical evaluation. Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last five years and financial capacity. Bidders were required to attain a minimum weighted score of 0.50 for them to be considered responsive.
- 3.3.121 According to the minutes of the technical evaluation committee, only two bidders, MS Riang International (Scored 0.77) and MS. Machine Centre Ltd (Scored 0.95) were considered responsive and proceeded for financial evaluation. Financial evaluation was conducted by correcting arithmetic errors and ranking the bidders as follows:

Table 13: Financial evaluation – Loberot Irrigation Project

	Bidder	Opened bid price (Kshs.)	Corrected bid price (Kshs.)	Effect	% error correction factor
1	MS. Riang International	69,742,553	100,307,031	+30,313,229	30.2
2	MS. Machine Centre Ltd	64,593,955	64,526,619	-67,336	0.1

- 3.3.122 The evaluation committee recommended the tender to be awarded to MS. Machine Centre Ltd at a contract sum of Kshs.64,593,955. On 30 November 2012,

the tender committee awarded the tender for construction works of Loborot Irrigation Scheme to MS. Machine Centre Ltd at a contract sum of Kshs.64,593,955.

- 3.3.123 Section 68 (1) of the PPDA ,2005 requires the contract price between the procuring entity and the successful bidder to take into consideration any correction of arithmetic errors made.
- 3.3.124 During tender evaluation, the bid price for successful bidder (MS. Machine Centre Ltd) was found to have arithmetic errors and therefore corrected from their quoted price of Kshs.64,593,955 to corrected tender price of Kshs.64,526,619. However, the contract between MS. Machine Centre Ltd and NIB was entered to at an erroneous contract price of Kshs.64,593,955 contrary to Section 68 (1) of the PPDA ,2005.
- 3.3.125 On 30 November 2012 the tender committee approved the decision of the evaluation committee and awarded the tender to MS. Machine Centre limited at a contract sum of Kshs.64,593,955. Notification to both successful and unsuccessful bidders were made on 10 December 2012.
- 3.3.126 On 14 January 2013, NIB and MS. Machine Centre limited entered into a contract agreement for construction works at Loborot Irrigation Scheme at a contract price of Kshs.64,593,955 .

Post-tendering

- 3.3.127 A review of payment records established that NIB had paid the project contractor a total of Kshs.64,295,316 as at the time of audit. This resulted in a variance of Kshs.298,639 between the contract sum and amounts paid. The then NIB Project Resident Engineer explained that this amount was a cost saving to NIB.
- 3.3.128 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.
- 3.3.129 The project contract indicated that the contractor had executed the following works: Intake works, conveyance, hydraulic structures, division boxes, Road crossings and drop structures. Due to time and resource constraints, the project was not covered during field inspection.

9. Kolyoro Irrigation Scheme Development Project

Pre-tendering

- 3.3.130 Procurement for the project was captured in the Annual Procurement Plan for financial year 2012/2013. On 26 September 2012, the tender committee approved a request for procurement of construction works through restricted tendering.
- 3.3.131 On 10 July 2012, NIB wrote to the District Commissioner of the defunct Loima District requesting for a list of prequalified contractors. On 21 September ,2012 the DC replied giving a list of 24 prequalified contractors.
- 3.3.132 The Tender committee approved the twenty-four prequalified firms and further directed that ten firms detailed in **Appendix IV** selected from the list of prequalified firms be invited to bid. The tender committee did not provide any justification/ objective criteria of selecting the ten firms out of the twenty-four prequalified firms.

Tendering

- 3.3.133 On 09 October 2012, Bids were invited from the ten firms approved by the tender committee. Bids were opened on 02 November 2012 and only four bidders responded as detailed in **Appendix IV**.
- 3.3.134 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address and fully filled business questionnaire, tender security, certificate of incorporation, tax compliance and valid trading license.
- 3.3.135 Two bidders MS. Machine Centre Ltd and MS. Lumbe Agencies Ltd met the preliminary evaluation requirements and were declared responsive. The rest of the bidders were disqualified for failure to provide tender security in the required form.
- 3.3.136 Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last three years and financial capacity. The two bidders met the stipulated requirements and proceeded for financial evaluations.

3.3.137 At financial evaluation stage, the two bidders were ranked based on their bid prices. MS. Lumbe Agencies Ltd emerged the least responsive evaluated bidder and was recommended for the tender award.

3.3.138 It was however established that the technical evaluation criteria used were also not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.

3.3.139 On 30 November 2012 the tender committee approved the decision of the evaluation committee and awarded the tender to MS. Lumbe Agencies Ltd at a contract sum of Kshs.64,719,250. Notification to both successful and unsuccessful bidders were made on 10 December 2012.

3.3.140 On 11 January 2013, a contract agreement was entered between NIB and MS. Lumbe Agencies Ltd for construction works of the Kolyoro Irrigation Scheme Development Project at a contract sum of Kshs.64,719,250.

Post-tendering

3.3.141 A review of payment records established that the contractor was paid a total of Kshs.64,640,941 as values of work done . The variance of Kshs.345,625 between contract sum and amounts paid to the contractor represented cost savings to NIB.

3.3.142 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.

3.3.143 The contract agreement required the contractor to execute the following components: Intake works, conveyance, hydraulic structures, drains, perimeter fence, flood protection, bush clearing and land preparation. An audit inspection conducted by a team of Irrigation Engineers engaged by the special audit established that work had been executed as per the contract.

10. Turkwel Irrigation Scheme Development Project

Pre-tendering

3.3.144 Procurement for the project was captured in the Annual Procurement Plan for financial year 2012/2013. According to the procurement plan, NIB had planned to procure a contractor through restricted tendering method for construction of Civil

Works. Subsequently, the Engineering Department raised a requisition to initiate the procurement process. The requisition was approved on 06 December 2012 by the Deputy General Manager.

- 3.3.145 On 08 February 2013, the tender committee approved a request for procurement of construction works through restricted tendering. The tender committee cited specialized nature of the works as a justification for use of restricted tendering.
- 3.3.146 The Tender committee further approved the following ten prequalified firms to be invited to bid: MS. Lumbe Agencies Ltd, MS. Joeli Building Contractors, MS. Machine Centre Ltd, MS. Tosha at General Construction Ltd, MS. Erex Contractors Ltd, MS. Lopii Contractors Ltd, MS. Sapiri Building Contractors, MS. Rotalink Engineering Company Ltd, MS. Gamona Enterprises Ltd, and MS. Riang International.

Tendering

- 3.3.147 On 27 May 2013, NIB invited the ten firms to bid with tenders closing on 17 June 2013. Tenders were opened on 17 June 2013 with only four firms returning bids as detailed in **Appendix IV**.
- 3.3.148 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address and fully filled business questionnaire, tender security, certificate of incorporation, tax compliance and valid trading license.
- 3.3.149 Two bidders MS. Machine Centre Ltd (Kshs.75,143,304) and MS. Tosha At General Construction Ltd (Kshs.70,854,410) met the preliminary evaluation requirements and were declared responsive. The rest of the bidders were disqualified for failure to submit bid security in the required format.
- 3.3.150 Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last five years and financial capacity. The evaluation was either a pass or a fail. Both firms were declared technically responsive and proceeded for financial evaluation.

3.3.151 Though the two bidders were declared responsive, the special audit established that the evaluation criteria were not applied uniformly since these bidders had failed to meet the requirements of at least two criteria under technical evaluation but were said to be responsive. MS. Machine Centre Ltd failed under financial capacity and work programme while Tosha at General Construction Ltd failed under qualification of key personnel and work programme.

3.3.152 It was established that the technical evaluation criteria used were not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.

3.3.153 Financial evaluations involved correction of arithmetic errors and ranking of bids as follows:

Table 14: Financial evaluations – Turkwel Irrigation Project

	Bidder	Bid price (Kshs)	Corrected bid price (Kshs)	Effect (Kshs)
1	Tosha At General Construction Ltd	70,854,410	70,854,740	-300
2	Machine Centre Ltd	75,143,304	75,159,986	-16,681

3.3.154 The evaluation Committee recommended MS. Tosha At General Construction Ltd to be awarded the tender at a contract sum of Kshs.70,854,410. On 08 July 2013 the tender committee approved the decision of the evaluation committee and awarded the tender to MS. Tosha At General Construction Ltd at a contract sum of Kshs.70,854,410. Notification to both successful and unsuccessful bidders were made on 9 July 2013.

3.3.155 On 30 July 2013, NIB and MS. Tosha At General Construction Ltd signed a contract agreement for construction works at Turkwel Irrigation Scheme at a contract sum of Kshs.70,854,410.

Post-tendering

3.3.156 A review of payment records established that the contractor had been paid a total of Kshs.70,854,217. According to the project agreement, the contractor was to execute the following project components: Intake works, Conveyance and

hydraulic structures. An audit inspection conducted by the special audit established that three hundred meters of the main canal had been destroyed.

- 3.3.157 An interview with the community members established that the destruction was caused by heavy floods in financial year 2015/2016. The special audit also noted that the canal had no earth lining and had low height which caused periodic overflows.

11. Nadoto Irrigation Scheme Development Project

Pre-tendering

- 3.3.158 Procurement for the project was captured in the Annual Procurement Plan for financial year 2012/2013. On 17 April 2013, the NIB tender committee approved a request for procurement of construction works through restricted tendering since the work was said to be of specialized nature.

- 3.3.159 The tender committee further approved the following ten prequalified firms to be invited to bid: Nyana Engineering Company, Benisa Ltd, Vine Yard Holding Ltd, Hanamal Construction Ltd, Isiolo Mwangaza Company Ltd, Oasis den Contractors and Suppliers, Charwins Ltd, Blue top Construction Ltd, Machine Centre Ltd and Property Word Ltd.

Tendering

- 3.3.160 On 27 May 2013, the ten firms were invited to bid with tenders closing on 17 June 2013. Tenders were opened on 17 June 2013 with only five firms returning bids as detailed in **Appendix IV**.

- 3.3.161 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address and fully filled business questionnaire, tender security, certificate of incorporation, tax compliance and valid trading license.

- 3.3.162 Two bidders, MS. Machine Centre Ltd (Kshs.78,764,350) and MS. Nyana Engineering Ltd (Kshs.79,974,700) met the preliminary evaluation requirements and were declared responsive. The rest of the bidders were disqualified for failure to provide tender security in the required form.

- 3.3.163 Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key

plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last five years and financial capacity.

3.3.164 The evaluation was either a pass or a fail. Both firms were declared technically responsive and proceeded for financial evaluation. According to minutes of the evaluation committee, MS. Nyana Engineering Co Ltd met the set conditions and proceeded to financial evaluation. Consequently, the committee recommended the bidder to be awarded the tender at a contract sum of Kshs.79,974,700.

3.3.165 It was however established that the technical evaluation criteria used were also not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.

3.3.166 On 08 July, 2013 the tender committee approved the decision of the evaluation committee and awarded the tender to MS. Nyana Engineering Co. Ltd at a contract sum of Kshs.79,974,700. Notification to both successful and unsuccessful bidders were made on 9 July 2013.

3.3.167 On 08 August 2013, a contract agreement was entered between NIB and MS. Nyana Engineering Co. Ltd at a contract price of Kshs.79,974,700 .

Post-tendering

3.3.168 A review of payment records established that the contractor had been paid a total of Kshs.79,800,449 as values of work done as at 08 May 2015 when the project was completed. This resulted in a variance of Kshs.174,251 between the contract sum and amounts paid. The NIB management explained that this was a cost saving to NIB.

3.3.169 According to the project agreement, the Contractor was to execute the following works: Intake works, conveyance, hydraulic structures and drains. An audit inspection conducted by the special audit established that the project components had been implemented as per the contract and the project was operational.

12. Naoros Irrigation Development Scheme project

Pre-tendering

3.3.170 Procurement for the project was captured in the Annual Procurement Plan for financial year 2012/2013. On 14 April 2013, the NIB tender committee approved a

request for procurement of construction works through restricted tendering since the work was said to be of specialized nature and therefore the need to engage pre-qualified contractors. The tender committee further approved ten prequalified firms detailed in **Appendix IV** to be invited to bid.

Tendering

- 3.3.171 On 28 March, 2013, the ten firms were invited to bid with tenders closing on 18 April 2013. An addendum was issued on 12 April 2013 extending the tender closing date to 25 April 2013. Tenders were opened on 25 April 2013 with only five firms returning bids as detailed in **Appendix IV**.
- 3.3.172 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address and fully filled business questionnaire, tender security, certificate of incorporation, tax compliance and valid trading license. According to the evaluation committee minutes, only one bidder MS. Hanamal Construction Ltd met the preliminary evaluation criteria and proceeded for technical evaluation. The rest of the bidders were disqualified for failure to meet preliminary evaluation requirements.
- 3.3.173 Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last five years and financial capacity. The evaluation was either a pass or a fail. Both firms were declared technically responsive and proceeded for financial evaluation.
- 3.3.174 According to minutes of the evaluation committee, MS. Hanamal Construction Ltd met the set conditions. Consequently, the committee recommended the bidder to be awarded the tender after considering its financial proposal. It was however established that the technical evaluation criteria used were not objective and quantifiable contrary to section 66(3)(a) of PPDA, 2005.
- 3.3.175 On 03 May, 2013 the tender committee approved the decision of the evaluation committee and awarded the tender to MS. Hanamal Construction Ltd at a contract sum of Kshs.73,573,793. Minutes of the tender committee indicated those present

as: Mr. Charles Koskei, Ms. Mary Chomba, Eng. Richard Kanui, Mr. Daniel Atula and Mr. Boaz Okello.

3.3.176 Notification to both successful and unsuccessful bidders were made on 10 May 2013. On 07 June 2013, a contract agreement was entered between NIB and MS. Hanamal Construction Ltd at a contract sum of Kshs.73,573,793.

3.3.177 On 21 November, 2014 the tender committee approved the variation of contract from the initial contract sum of Kshs.73,573,793 to Kshs.77,669,146 to cater for additional works of grading of the Road leading to the scheme.

Post-tendering

3.3.178 A review of payment records established that out of the contract sum of Kshs.77,669,146, the contractor had been paid a total of Kshs.76,669,848 as values of work done. This resulted in a variance of Kshs.999,298 between the contract sum and amounts paid. The variance was not explained by the NIB management.

3.3.179 The project agreement required the contractor to deliver the following project components: Intake works, conveyance, hydraulic structures, perimeter fence, bush clearing and drains. Due to time and resource constraints, the project was not covered during the field audit inspection.

13. Naremit Irrigation Scheme Development Project

Pre-tendering

3.3.180 Procurement for the project was captured in the Annual Procurement Plan for financial year 2013/2014. On 19 September 2013, the NIB tender committee approved a request for procurement of construction works through open tendering. The committee further directed that the tender be reserved for citizen contractors.

Tendering

3.3.181 The tender was advertised on 20 September, 2013 in the daily nation, the star and the standard newspapers. The advert indicated tender closing date as 15 October, 2013. Tenders were opened on 15 October, 2013 with twenty-three firms responding as detailed in **Appendix IV**.

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- 3.3.182 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, certificate of incorporation, tax compliance, valid trading license, NCA registration and power of Attorney.
- 3.3.183 According to the minutes of the evaluation committee, the following six bidders were considered responsive and proceeded for financial evaluation: MS. Warrabow Building and Construction Co. Ltd, MS. Tosha At Gen. Construction Co. Ltd, MS. Novatech Ltd, MS. Deche Construction Co. Ltd, MS. Nakuru Machinery services Ltd and MS. Two Keys International Ltd.
- 3.3.184 Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last three years and financial capacity. The evaluation was either a pass or a fail. Both firms were declared technically responsive and proceeded for financial evaluation.
- 3.3.185 According to minutes of the evaluation committee, only one bidder MS. Nakuru Machinery Services Ltd met the set technical and financial conditions and was recommended for award of the tender at a contract sum of Kshs.48,356,440.
- 3.3.186 It was however established that the technical evaluation criteria used were not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.
- 3.3.187 On 18 November, 2013 the tender committee disagreed with the recommendation of the evaluation committee and directed that the evaluation committee review and provide additional information as follows:
- The client, value, year, location and major components of the sated works experience
 - The requirement that the power of Attorney be witnessed by a commissioner for Oath /Advocate since the requirement was not explicitly stated
 - The computation of financial capacity inform of the available liquid assets and/ or credit facility in comparison with the sated requirements

- The computation of average annual volume of construction works in the last three years and comparison with stated requirements

3.3.188 On 28 November 2013, the tender committee considered the revised evaluation report and awarded the tender to MS. Nakuru Machinery Services Ltd at a contract sum of Kshs.48,356,440.

3.3.189 Notification to both successful and unsuccessful bidders were made on 24 January 2014. On 18 February 2014, a contract agreement was entered between NIB and MS Nakuru Machinery Services Ltd for construction work at a contract sum of Kshs.48,356,440.

3.3.190 The contract agreement required the contractor to execute the following project components: Intake works, Conveyance canals, Hydraulic Structures, Drainage Systems, fencing, flood protection and land preparation.

Post-tendering

3.3.191 A review of payment records established that an amount of Kshs.30,005,430 had been paid to the contractor as values of work done as at 18 August 2015. An inspection by the special audit established the project was not operational since the main canal had been silted and some parts were said to have been washed away by floods. The special audit valued the destructions at Kshs.34,794,100.

14. Lobot and Nakamane Irrigation Scheme

Pre-tendering

3.3.192 Procurement for the project was captured in the Annual Procurement Plan for financial year 2013/2014. On 19 September 2013, the NIB tender committee approved a request for procurement of construction works through open tendering. The committee further directed that the tender be advertised in the Daily Nation, Standard and Start Newspapers and be reserved for citizen contractors.

Tendering

- 3.3.193 The tender was subsequently advertised in the daily Nation, Standard and Star Newspapers of 20 September,2013. The advert indicated tender closing date as 15 October,2013. Tenders were opened on 15 October,2013 with twenty firms responding as detailed in **Appendix IV**.
- 3.3.194 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. The preliminary evaluation criteria were: Physical location and contact address, tender security, certificate of incorporation, tax compliance, valid trading license, NCA registration and power of Attorney.
- 3.3.195 According to the minutes of the evaluation committee, the following five bidders were considered responsive and proceeded for financial evaluation: MS. Machine Centre Ltd, MS. Nakuru Machine, MS. Tosha at General Company Ltd, MS. Nakim Merchants & Contractors Ltd and MS. Seo & Sons Ltd.
- 3.3.196 Technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last three years and financial capacity. The evaluation was either a pass or a fail. Two bidders MS. Machine Centre Ltd and MS. Nakuru Machinery Services Ltd were declared technically responsive and proceeded for financial evaluation.
- 3.3.197 Financial evaluations involve conducting arithmetic check and ranking of the bids. None of the bids had an error. Among the two bidders, MS. Nakuru Machinery Services Ltd was ranked the best as it had quoted the least contract sum of Kshs.48,505,600. The evaluation committee further observed that MS. Nakuru Machinery Services Ltd had already been awarded another tender for Naremit Irrigation project at Kshs.Kshs.48,356,440.
- 3.3.198 The committee evaluated the essential capacity of the bidder to implement the two contractors simultaneously and established that the capacity was inadequate. In this regard, and for the purpose of allowing many citizens to participate in the tender, the evaluation committee recommended the award of the tender to the 2nd lowest evaluated bidder, MS. Machine Centre Ltd at a contract price of

Kshs.49,720,000 since the first lowest evaluated bidder MS. Nakuru Machinery Services Ltd had already been awarded another tender.

3.3.199 The special audit established that the technical evaluation criteria used were not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.

3.3.200 On 28 November 2013, the tender committee approved the recommendation of the evaluation committee and awarded the tender to MS Machine Centre Ltd at a contract sum of Kshs.49,720,000.

3.3.201 Notification to both successful and unsuccessful bidders were made on 24 January 2014. On 19 February 2014, a contract agreement was entered between NIB and MS. Machine Centre Ltd for construction works of the flood and animal control infrastructure in Loborot and Nakamane Irrigation schemes at a contract sum of Kssh.49,720,000.

Post-tendering

3.3.202 A review of payment records established that NIB had paid the contractor a total of Kshs.49,258,070 as values of work done as at 17 July 2014 when the project was completed.

3.3.203 The project contract required the contractor to deliver the following project components: Perimeter fence, Gully control, Riverbank/ Intake protection and main canal excavation. A project inspection by the special audit established that though the project had been implemented as per the contract, the gully control was wearing off while the main canal was silted.

3.3.204 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.

15. Lokipetot Irrigation Scheme Development Project

Pre-tendering

3.3.205 Procurement for the project was captured in the Annual Procurement Plan for financial year 2013/2014. On 03 September 2014, the NIB tender committee

approved a request for procurement of construction works through restricted tendering since it was specialized in nature.

3.3.206 Subsequently, NIB wrote to Turkana County Commissioner requesting for a list of prequalified contractors in the County. The County Commissioner presented a list of the eleven firms detailed in **Appendix IV**.

Tendering

3.3.207 On 08 August 2014, NIB sent invitation letters to the aforementioned firms approved by the tender committee. Tenders were opened on 22 August 2014 with five firms responding as detailed in **Appendix IV**.

3.3.208 Evaluation of bidders was done at three levels: preliminary, technical and financial evaluations. MS. Jagab contractors Ltd was disqualified for submitting tender security valid for less than 120 days rather than the required 150 days.

3.3.209 The remaining four firms proceeded for technical evaluations were conducted based on the following criteria: Past experience and performance, qualification and experience of key personnel, key plants and equipment, adequacy of the proposed methodology and work schedule, financial capability and annual volume of construction in the last five years and financial capacity.

3.3.210 Three bidders MS. Turkana Technical & Building Contractors Ltd, Namorutan'aga Contractors Ltd and MS. Turkana Salama Ltd passed the evaluation criteria and was declared technically responsive and proceeded for financial evaluation.

3.3.211 Financial evaluations involved checking for arithmetic errors in the bid prices. No errors were detected and MS. Turkana Salama Ltd emerged the lowest evaluated bidder and was recommended for award of the tender at a contract sum of Kshs.59,826,117.

3.3.212 The special audit established that the technical evaluation criteria used were also not objective and quantifiable contrary to section 66(3)(a) of PPDA,2005.

3.3.213 On 27 February 2014, the tender committee approved the recommendation of the evaluation committee and awarded the tender to Turkana Salama Enterprises Ltd at a contract sum of Kshs.59,826,117.

3.3.214 On 11 May 2015, a contract agreement was entered between NIB and Turkana Salama Enterprises Ltd for construction works of Lokipelot Irrigation Scheme at a contract sum of Kshs.59,826,117. The following were the contractual obligations of the contractor Construction of the: Perimeter wall, flood control structures, conveyance canals, hydraulic structures, drains, camp office and land leveling.

Post-tendering

3.3.215 An audit inspection by a team of Engineers engaged by the special audit established that construction works was still ongoing (75% complete) though part of it had been tested but not operational. The ongoing works were: Perimeter fence, land levelling, flood protection bands and camp office.

3.3.216 A review of payment records established that NIB had paid the contractor an amount of Kshs.57,037,658.

16. Elelea and Lokubae Irrigation Schemes

Pre-tendering

3.3.217 Construction Works on Elelea and Lokubae Irrigation Project was captured in the NIB annual procurement plan for financial year 2011/2012. The plan indicated that NIB was to procure a contractor through restricted tendering method for construction works of 200 acres of land in Turkana, County.

3.3.218 On 17 August 2011 Mr. Felix Shiundu, an Irrigation Engineer presented a procurement request to the NIB tender committee for procurement of rehabilitation works for the project. The scope of work was as follows:

Table 15: Scope of work- Elelea and Lokubae Irrigation Schemes

	Elelea Irrigation Scheme	Lokubae
1	Relocation of intake	Construction of culvert crossing
2	Gabion protection works	Repair of division boxes and gates
3	Construction of culvert crossing for livestock	-
4	Repair of division boxes and gates	-

3.3.219 The tender Committee approved the request and directed that the contractor be procured through restricted tendering based on the list of prequalified contractors. The committee cited sections 73 (2)(a) of PPDA,2005 that allows use of restricted tendering where project is of complex or specialized nature.

Tendering

3.3.220 On 01 September 2011, NIB wrote letters to twelve firms detailed in **Appendix III** to bid for the tender.

3.3.221 Tenders closed and opened on 29 September 2011. A review of the tender opening register and minutes established that only three bidders responded as follows: M/S Bomac Construction Services (Kshs.15,500,000), M/S Toshe Construction Ltd (Kshs. 8,959,000), M/S Archen Co. Ltd (Kshs.22,593,825).

3.3.222 Tender evaluation was carried out at three levels: Preliminary evaluation, broad technical evaluation and financial evaluations. At preliminary evaluation level, responsive firms were required to avail evidence of: Physical location, contact address, tender security, certificate of incorporation/ registration, tax compliance and valid trading licenses. Consequently, MS Archen Co. Ltd was declared non-responsive for failure to provide tender security in the manner and form prescribed in the tender document.

3.3.223 MS Bomac Construction Services and MS Toshe Construction and Engineering Ltd proceeded to Broad technical evaluation stage. This was done based on the following criteria: past experience, qualification and experience of key personnel, evidence of ownership or hire of plants and equipment for executing the work, adequacy of the proposed methodology, work schedule and financial capacity.

3.3.224 According to the evaluation report dated 24 October 2011, Bidders were required to score a minimum of seventy five (75%) for them to be considered responsive. Two bidders' M/S Toshe Construction and Engineering Ltd (90%) and MS Bomac Construction Services Ltd (85%) passed the evaluation criteria and proceeded for financial evaluation.

3.3.225 Despite the above irregularities, the evaluation committee recommended MS Bomac Construction Services Ltd for the award tender at a tender sum of Kshs.15,500,000 having been the lowest evaluated bidder.

3.3.226 On 27 October 2011, the tender committee awarded the tender to MS Bomac Construction Services Ltd at Kshs.15,500,000. Both successful and unsuccessful bidders were notified on 04 November, 2011.

Post tendering

3.3.227 NIB and MS Bomac Construction Services Ltd entered into a contract on 08 December 2011. The project completion period was stated to be 6 months while the defect liability period was 12 months. According to the contract, the total project costs was Kshs.15,500,000 arrived at as follows:

Table 16: Contractual costs –Elelea and Lokubae Irrigation Project

Bill No	Description	Amount (Kshs.)
1	Preliminaries and General	875,000
2	Rehabilitation of Elelea Structures	10,042,800
3	Rehabilitation of Lokubae Structures	4,582,200
	Total	15,500,000

3.3.228 A review of payment records established that NIB had paid the contractor an amount of Kshs.13,815,848 as values of work done as at 05 January 2013 when the project was completed resulting in a variance of Kshs.1,684,151 between the contract sum and amounts paid. The NIB Management explained that the variance represented cost savings by NIB as a result of reducing the number of gabion boxes due to stable river embankment. Due to time and resource constraints, the project was not covered during field inspection visits.

3.3.229 Though the payments were based on project managers' certification, there was no evidence that the inspection and acceptance committee inspected and reviewed the goods, works or services in order to ensure compliance with the terms and specifications of the contract contrary to Regulation 17 (3)(e) of PPR,2006.

B. GALANA GULALU FOOD SECURITY PROJECT

3.3.230 As at the time of audit, a total of Kshs.8,249,275,475 had been incurred on various procurements as follows: Procurement of consultancy services for pre-investment, prefeasibility and planning study (Kshs.921,145,953); Procurement of contractor for

development of the 10,000-acre model farm (Kshs.14,859,862,653 that was later reduced to Kshs.7,294,853,037) and Procurement of contractors for rehabilitation and expansion of roads, water pans and airstrips (Kshs.33,276,485).

Consultancy services for pre-investment, prefeasibility and planning study

3.3.231 On 10 June 2013, NIB advertised Expression of Interest (EOI) for provision of consultancy services for feasibility study, planning and preparation of bill of quantities and costs for GKFSP.

3.3.232 The completed EOI documents were opened on 12 July 2013 and a total of 41 consortium firms submitted their technical proposals. Thirty-two firms (32) firms were disqualified for failure to have technical and financial capacity to execute the work while nine firms were recommended to be considered for invitation to submit proposals.

3.3.233 On 01 August 2013, invitations were made to the nine firms to bid for the consultancy work. Bids were subsequently, opened and evaluated resulting into award of the contract to MS. Agrigreen Consulting (Israel) and Environ plan and Management Consultants (Kenya) Ltd at a contract sum of Kshs.739,968,453.

3.3.234 The contract was varied on 14 March 2014 by twenty-five percent (25%) from Kshs.739,968,453 to Kshs.921,145,953. The additional cost of Kshs.181,177,500 was to cater for detailed designs of the model farm.

3.3.235 The consultant submitted a report to NIB that indicated that the project was feasible and would support maize and field crops, sugarcane, fruit trees plantations, vegetables in greenhouses, beef cattle farms, dairy farms, fish production and poultry. The report was accompanied by project component designs.

3.3.236 As at the time of completion of the audit, we established that the consortium had been paid a total of Kshs.653,648,288.

Procurement of a project contractor for development of the model farm

Pre-tendering

3.3.237 On 07 May 2014, the then PS, MOALF, State Department of Agriculture, Mrs. Sisily Kariuki wrote to H.E Mr. Gil Haskel, the Israel Ambassador in Kenya informing him

that the Ministry wished to enter into discussions with M/S Green Arava Israel to implement and manage the 10,000-acre model farm and guide implementation of additional 90,000 acres.

3.3.238 The PS also requested the Ambassador to support a “Government to Government” process and negotiations to enable Kenya secure a loan from the government of Israel for implementation of the 10,000-acre model farm and dam with conveyance system.

3.3.239 On 22 May 2014, the former General Manger of NIB, Eng. D. K. Barasa, wrote to the PS, MOALF, Mrs. Sicily K. Kariuki and informed her that discussions had been held and it had been recommended that M/S Green Arava Israel be procured to carry out development of the model farm. The minutes of the meeting were however not availed.

3.3.240 The letter further indicated that M/S Green Arava Israel was the parent company of M/S Agrigreen Consulting (Israel), the consortium firm that conducted feasibility study.

Tendering

3.3.241 On 07 July 2014, a team of Government Officers visited M/S Green Arava Israel Ltd to carry out due diligence. The officers included Mr. Peter Wellington Odundo (MOALF), Eng. Wilfred Onchwari onchoke (MOALF), Ms. Maria Goretti Nyariki (MOALF), Eng. Daniel Kidwoli Barasa (NIB), Eng. Richard Kanui Munyao(NIB), Dr. Andrew Kiprotich Tuimur (ADC), Mr. James Kihara Muruthi (NIB), Ms. Jane Musundi Musibayi and Ms. Christine Kanini Ileri.

3.3.242 The team recommended that M/S Green Arava Israel Ltd had legal, financial and technical capability to undertake the development of the 10,000-acre model farm.

3.3.243 On 01 August 2014, NIB tender committee comprising the following members met and approved use of direct procurement method to procure a contractor for construction works of the 10,000-acre model farm. The committee comprised Ms. Mary Chomba, Eng. George Odede, Eng. Richard Kanui, Ms. Victoria Aloo, Mr. Kisaka Sukari, Mr. Dennis Aroka and Mr. Boaz Okello.

3.3.244 The Tender Committee approved direct procurement pursuant to section 74 (2) of the PPDA, 2005 that allows use of direct procurement where there is only one

person who can supply goods/services and there is no reasonable substitute or alternative for the goods, works or services. These was based on the reason that there was no better alternative to implement and test the recommended technology in the model farm other than the company who designed it since the implementation by the designer would be faster.

3.3.245 On 11 August 2014, M/S Green Arava Israel submitted Kshs.14,859,862,653 as cost of construction works for the 10,000 acre-model farm. The tender committee approved the award on 15 August 2014.

3.3.246 A review of the certificate of declaration dated 14 May 2014 submitted to NIB by M/S Green Arava Israel disclosed the following as ownership structure of the firm:

Table 17: Ownership Structure of M/S Green Arava Israel

	Owner	Shareholding (%)
1	Mr. Barak Tamir	50
2	Green Arava Ltd	40
3	Y. Somech Holdings	10

3.3.247 The certificate of declaration further disclosed that Mr. Barak Tamir owned 100% shares of Agrigreen Consulting Corporation, one of the consortium firms that was awarded contract for pre-feasibility studies and development of designs and cost estimates for the Galana Kulalu Model firm.

3.3.248 It therefore implies that one of the consortium firm (M/S Agrigreen Consulting Corporation) that conducted feasibility study and developed designs and cost estimates for the project owns 50% of M/S Green Arava Israel, the firm that was awarded the tender for construction works for the project.

3.3.249 On 20 August 2014, M/S Green Arava Ltd and NIB entered into pre-contract negotiation. During the negotiations, M/S Green Arava Ltd reduced the contract price from Kshs.14,833,647,986 to Kshs.14,545,106,963 (USD.163,428,168) as detailed in **Appendix VI**. The contract agreement was subsequently signed on 20 April 2014.

3.3.250 Section 60.1 of the contract agreement specified the scope of works as follows: Construction and Installation of Irrigation systems and pumping stations comprising of 24 center pivots and 24 pumping stations; Installation of equipment and main material for irrigation systems, pumping stations, agriculture machinery and vehicles; Operation and Maintenance and Development of the business model concept.

Post tendering

3.3.251 A review of payment schedules revealed that as at the time of completion of the audit, NIB had paid the contractor a total of Kshs.4,142,817,309 while certificates amounting to USD.30,968,106 (Kshs.2,632,289,113) had been forwarded by NIB to Bank Leumile Israel through the National Treasury of Kenya for payment as detailed in **Appendix VII**.

3.3.252 On 18 January 2016, the then PS, Ministry of Water and Irrigation, State Department of Irrigation Mr. Patrick Nduati Mwangi wrote to the PS National Treasury, Dr. Kamau Thugge, through a letter ref. No. MEW/NRD/PARAS/10/6 VOL. VI (7) informing him that due to budgetary constraints and following consultations between various stakeholders project activities amounting to Kshs.7,538,794,949 detailed in **Appendix VIII** had been deferred. The NIB Management explained that an interministerial committee comprising Cabinet Secrets for Agriculture, National Treasury , Transport and Infrastructure had approved the deferment. However, minutes of the meeting were not availed.

3.3.253 On 27 January 2016, NIB and M/S Green Arava Israel signed an amendment to the contract deferring various items listed in the scope of works totaling to Kshs.7,538,794,949. However, the amendment was based on the initial contract price of Kshs.14,833,647,986 and not the negotiated contract price of Kshs.14,545,106,963.

3.3.254 Consequently, the contract price reduced from Kshs.14,545,106,963 to Kshs.7,294,853,037. The Amendment to the contract stated that NIB may reactivate the implementation of any item deferred by issuing a 14 days' notice to the contractor subject to written confirmation by the contractor.

3.3.255 The economic analysis report developed by the project consultant projected maize yield production of 10 tonnes/ Ha translating to 44 bags of 90 Kgs of maize per acre in one growing cycle (1 Ha= 2.47 acres).

3.3.256 A review of harvesting records dated 22 November 2015 for the 1st season of production covering 500 acres established that a total of 710,828 Kilograms (7,898 bags of 90 Kgs) were harvested and delivered to National Cereals and Produce Board (NCPB). This translates to an average of 15.796 of 90 Kgs bags of maize per acre. The average production per acre was therefore 29 bags below expected production (65% below expected performance). Records at NIB indicated that this production subsequently increased to a production of thirty-one bags per acre which was still below the projected production of 44 bags of 90 Kgs of maize per acre.

Rehabilitation and expansion of Roads, Water pans and Airstrip

3.3.257 The NIB tender committee meeting held on 23 October 2015 discussed and approved use of restricted tendering method for procurement for improvement of nine (9) water pans in the Galana Food Security Project as detailed in **Appendix IX**. The tender committee cited specialized nature of the work as a basis for use of restricted tendering method.

3.3.258 On 13 November 2015, NIB invited the following ten (10) prequalified firms to bid for the tender for rehabilitation of eight (8) water pans in Galana Kulalu Food Security Project: M/S Fenke Agencies Ltd, M/S Sosmut Trading Co. Ltd; M/S Power and Solar Group Ltd; M/S Toddy Civil Engineering Co. Ltd, MS Dalicent Ltd, M/S Rapid Solutions, M/S Benvic Investments Ltd, M/S Unibee Construction Co. Ltd, M/S Tamani Dominion Supplies (K) Ltd and M/S Abbey Construction Ltd.

3.3.259 M/S. Benvic Investment Ltd emerged the lowest evaluated bidder and was awarded the contract at tender sum of Kshs.33,276,485. We were not availed payment vouchers relating to the contract. However, the Acting Finance Manager informed us that no payment had been made as at the time of completion of the special audit.

C. LOWER SIO DEVELOPMENT PROJECT: BUSIA COUNTY

3.3.260 The Irrigation project comprises both gravity and pumping systems and was planned to be being implemented in two phases. Phase One (I) covered three areas as follows:

Area 1 (4,250 - Namanderema Bulwama Irrigation Scheme

- Gravity system consisting of head works, pipeline and canals for conveyance, mainlines and secondary canals.

Areas 2 (5,000) - Busina Mundika Irrigation Scheme

- Combination of pumping and gravity systems for Head works, rising main, mainlines and secondary canals

Areas 5 (1,700) - Nanundu Manya Irrigation Scheme

- Combination of both pumping and gravity systems for Head works, rising main, mainlines and secondary canals, scheme roads, drainage and flood control system.

3.3.261 Phase II was yet to commence and it was to comprise areas 3 and 4. An amount of Kshs.2,238,578,663 had been incurred as follows; Consultancy services for feasibility study (Kshs.40,538,000); Consultancy services for the environmental and social impact assessment(Kshs.3,952,707); Compensation for land acquired from the local community (Kshs.321,411,456); Consultancy services for conveyance services (Kshs.24,456,000); Consultancy services for supervision (Kshs.152,686,100); and Construction of irrigation systems (Kshs.1,695,534,400).

3.3.262 Flooding had submerged the intake works for area and there were also outstanding compensations. The management further indicated that a hydrological assessment had proposed downscaling of the project to reflect the available water resources at an estimated cost of Kshs.54,404,380.

Consultancy services for feasibility study

3.3.263 The tender committee approved use of Request for Proposals (RFP) for procurement of the consultant. The committee approved the following six (6) prequalified firms to bid for the tender: M/S GIBB Africa Nairobi Kenya; M/S CAS

Consultants Ltd, Nairobi Kenya; M/S Bhundia Associates Nairobi Kenya; M/S Palkar Consulting Engineers Ltd Nairobi; M/S AHT Group AG Management and Engineering (Germany); and M/S Yekom Consulting Engineers (Iran) (Lead) in association with Associated Consulting Engineers (Pakistan) and Multiplex Professional Consulting Services (Kenya).

3.3.264 On 05 October 2009, NIB sent RFP for consultancy services to the six (6) firms for feasibility study to identify irrigation investments in 4,000 ha of land in the Lower Sio Basin, develop detailed designs and prepare tender documents. Bids were subsequently opened and evaluated culminating to award of the tender to the lowest evaluated responsive bidder, M/S. Bhundia Associates at a contract sum of Kshs.40, 538,000

3.3.265 On 3 December 2010 , the consultant submitted a report whose findings were as follows: Irrigation has been practiced in smallholder category in the production of rice and vegetables and there was need to increase land utilization through irrigation and drainage activities; There was a market for rice due to the growing population of Busia District and growing cross border trade; There was abundant water to support irrigation; Environmental Impact Assessment to be carried out at an early stage to identify and propose environmental risk mitigation measures

3.3.266 As at the time of completion of the audit, the consultant had been paid a total of Kshs.40,538,000 as per the contract.

Consultancy services for the environmental and social impact assessment

3.3.267 On 05 August 2011, NIB sent invitation letters to ten (10) prequalified firms to bid for consultancy services for provision of environmental and social impact assessment including preparation a resettlement plan for the Lower Sio Irrigation Development Project.

3.3.268 Out of the ten firms, only four responded to the request. Bids of the four firms were opened and evaluated resulting to award of the tender to M/S Infranet Associates Ltd Kenya at a contract sum of Kshs.3,952,707. We however observed that the evaluation report submitted to the tender committee did not contain scores of individual members of the evaluation committee contrary to section 16(10) (e) of the Public Procurement Regulations, 2006.

3.3.269 The consultant submitted a report to NIB recommending acquisition of 357.41 acres of land that fall within the project construction area at an estimated cost of Kshs.321,411,456 as detailed in **Appendix X**.

3.3.270 As at the time of completion of the audit, M/S. Infranet Associates had been paid a total of Kshs.3,937,894 .

Compensation of land owners

3.3.271 NIB engaged M/S. Infranet Associates and M/S.J.O. Juma & Co. Advocates to provide consultancy services for valuation and conveyance services (Transfer of legal titles from land owners to NIB) in regard to compensation of land owners respectively.

3.3.272 On 03 April 2013, M/S Infranet issued a report to NIB that established that a total of 357 acres of land was to be affected by the project and recommended that NIB acquires the 357 acres of land at a cost of Kshs.321,411,456.

3.3.273 On 17 September, 2013 M/S.J.O. Juma & Co. Advocates issued an inception report indicating that the report by M/S Infranet had omitted four (4) parcels of land located in the intake area. In this regard, M/S. J.O. Juma & Co. Advocates requested NIB to give an approval for supplementary valuation of the omitted parcels of land. NIB approved the request for supplementary valuation of land for compensation purpose.

3.3.274 M/S. J.O. Juma & Co. Advocates engaged one of its consultant staff, M/S Real Appraisal Ltd, to conduct the supplementary valuation. On 02 April 2014, M/S Real Appraisal Ltd issued a report recommending acquisition of additional four (4) parcels of land valued at Kshs.94,536,582. Consequently, the total value of land to be acquired by NIB increased from Kshs.321,411,456 to Kshs.415,948,038 while the acreage increased from 357 acres to 421 acres.

3.3.275 As at the time of completion of this audit, NIB had paid a total of Kshs.321,411,456 to various land owners as compensation for acquisition of land.

Consultancy services for conveyance services

3.3.276 On 25 April 2013, the NIB tender committee approved procurement of conveyance services through restricted tendering method based on prequalified firms.

According to minutes of the tender committee, restricted tendering method was preferred because of the specialized nature of conveyance services pursuant to section 73 (2) (a) of the PPDA, 2005.

3.3.277 On 29 May 2013, NIB invited ten prequalified firms to bid for the tender. However only three firms; M/S. Otieno Yogo & Co. advocates, M/S. Moronge & Co. Advocates and M/S. J.O. Juma & Co. Advocates returned their bids on 19 June 2013. Evaluation of tenders was done resulting to award of the tender to the lowest evaluated responsive bidder, M/S. J.O. Juma & Co. Advocates at a tender sum of Kshs.24,456,000.

3.3.278 On 15 April 2016 NIB varied the contract by Kshs.5,210,500 from Kshs.24,456,000 to Kshs.29,666,000 to include cost of processing title deeds. As at the time of completion of the audit, NIB had paid M/S. J.O. Juma and Company Advocates a total of Kshs.25,946,314.

Consultancy services for supervision works

3.3.279 On 08 June 2011, the NIB tender committee approved use of restricted tendering and invitation to bid for supervision of Lower Sio Irrigation Project from the following Seven (7) prequalified firms: M/S. Coda and Partners Ltd; M/S. GIBB International; M/S. CAS Consultants; M/S. Professional Consultants; M/S. Bhundia Associates; and M/S. East African Engineering Consultants, M/S Resconsult .

3.3.280 Six firms returned the bids and were subjected to technical and financial evaluations. On 29 September 2011, the tender committee awarded the tender for supervision works for Lower Sio Irrigation to M/S. Bhundia Associates at a contract price of Kshs.51,382,600.

3.3.281 The contract was varied two times. The first variation was done on 03 March 2014 and the contract was varied from Kshs.51,382,600 to Kshs.58,511,706(14%). The second variation was done on 08 September 2014, and the contract amount was varied from Kshs.58,511,706 to Kshs.64,229,500 (10%). Both variations were approved by NIB tender committees. As at the time of completion of the audit, the consultant had been paid a total of Kshs.56,452,345

3.3.282 On 08 September 2014, the tender committee rejected the user department's request for a third variation of the contract that had been awarded to M/S. Bhundia

Associates because the variation would have exceeded the 25% threshold allowed by Legal Notice No 106 of 2013. Consequently, the committee approved procurement of a new consultant.

3.3.283 On 30 April 2015, NIB sent requests for proposals for provision of consultancy services for supervision of construction works for Lower Sio Irrigation Development project to the following ten (10) prequalified firms: Ms. CAS Consultants Ltd, Ms. Finix Consulting Ltd, Ms. Marven –Tech Consultants, Ms. Agricom Consultants Ltd, MS. Ocra Company Ltd, Ms. Farmline Consultants Ltd, M/S. Appropriate Development Consultant Ltd, MS. Bhundia Associates, M/S. Gedo Associates and MS. East African Engineering Consultants.

3.3.284 Bids were opened and evaluated resulting to award of the tender to Ms. Bhundia Associates at a contract sum of Kshs.88,486,600. As at the time of completion of the audit, no payment had been made to the consultant in regard to the contract for supervision works.

Procurement of contractual works

3.3.285 On 28 July 2011, NIB advertised the tender for procurement of contractor for construction works of the Lower Sio Irrigation Scheme Development Project Phase I in the Daily Nation, Standard Newspaper and the Star. According to the advertisement, scope of works to be undertaken included construction of; head works, rising mains, canals, scheme roads and drainage system.

3.3.286 Eight firms submitted their bids and were subjected to technical and financial evaluations. On 16 December 2011, the tender committee awarded the tender for construction works for Lower Sio Irrigation Development Project to M/S. Lee Construction Co. Ltd at a tender price of Kshs.1,695,534,400 (inclusive of taxes). Though this amount was higher than the available budget of Kshs.1,110,000,000, the NIB management explained that more funds were to be allocated in subsequent financial years.

3.3.287 As at the time of audit, a total of Kshs.1,149,903,054 had been paid to the contractor

3.3.288 We conducted a site visit to the project and established that the contractor was not on site. The following works were still pending work as at the time of completion of the audit:

- A site office consisting of two office blocks and a laboratory had been built, roofing and plastering of inner walls. However, the doors and windows had not been fitted, electrical fittings and septic water tank had not been done.
- Although a pump house had been constructed, pumps had not been supplied and installed by the contractor.
- The connection from the pump house to the rising main had not been done.
- The digging of the 11 km open canal was not continuous. Some farmers along the canal had denied the contractor access due to land compensation related issues.

D. CHEMASE IRRIGATION DEVELOPMENT PROJECT: NANDI COUNTY

3.3.289 The tender committee discussed and approved the procurement of the works through restricted tendering from prequalified firms in accordance with section 29 (3) and 73 (2) (b) of the PPDA, 2005. Section 73 (2) (b) of PPDA, 2005 allows use of restricted tendering in cases where there are only a few known suppliers of goods and services.

3.3.290 On 04 February 2015, NIB invited ten (10) prequalified firms to bid for the tender for construction works of the Chemase irrigation Development Project. Nine (9) firms returned their bids which were opened and evaluated resulting to award of the contract to MS Riang International Group Ltd at a contract sum of Kshs.172,200,500.

3.3.291 As at the time of completion of the audit, the contractor had been paid a total of Kshs.62,007,703.

3.3.292 The project contract was signed on 16 April 2015 and the expected completion date was set at 16 April 2016. As at the time of completion of the audit, NIB Irrigation Engineers estimated the implementation level of the project as eighty-five (85%).

3.3.293 The NIB management indicated that the project was behind schedule due to delays in paying the project contractor. Consequently, the contractor had requested for extension of contract. A site inspection conducted by the special audit ascertained the project status as follows:

Table 18: Project status for Chemase Irrigation Development Project

	Planned Activities	Status
1	Office Block	Complete
2	Office Equipment	100%
3	Weir 10 length,2.5m width and 1.2 height	Complete
4	Sedimentation	Complete
5	Conveyance System	Complete
6	315mm dia. Mainline 750m	Complete
7	Sub-mains	Complete
8	Chemursoi Submain-1, 250mm Dia.6731m	Complete
9	Chemase submain-2,200mmm Dia.6426m	Complete
10	13km branches and distributions lines of various dia. Ranching from 140mm dia to 50mm.	Incompetently 10km done
11	Supply and installation of 1398 1/8 acre-drip	Incomplete. Only 700 kits supplied and delivered.

E. SOUTH WEST KANO IRRIGATION SCHEME DEVELOPMENT PROJECT: KISUMU COUNTY

3.3.294 South West Kano Irrigation Scheme is located in Nyando (20%) and Kisumu East (80%) sub counties in Kisumu County. The project supports rice farmers in rice production through provision of water for irrigation. It was started in the 1990s and initially covered irrigation infrastructure of 1300 acres and it has now expanded its coverage area to approximately 3,400 acres as at September 2016.

3.3.295 As a results of expansion of coverage area, the scheme suffered from water shortage forcing farmers to grow rice in rotation with the better part of the land remaining fallow for the better part of the year. Consequently, the Engineering

Department of NIB assessed the project and proposed construction of an additional pipe of water to increase irrigation water supply from a discharge capacity of 1.5m³/s to a discharge of 3.5m³/s.

3.3.296 On 30 April 2013, the Scheme Manager for Western Kenya Region wrote a letter Ref No. WKIS/ADM/4 to General Manager NIB, requesting NIB to facilitate rehabilitation works in the scheme due to bad state of scheme check gates leading to poor and lack of efficient water management, lack of paddy store for the scheme and poor road network in the scheme.

3.3.297 The Scheme Manager proposed the following intervention measures to address the challenge; Desilting of the conveyance system, laying of the second culvert/pipeline, rehabilitation of weir/intake works and rehabilitation of other structures in the conveyance system.

3.3.298 On 30 January 2013, the tender committee approved the contractor to be procured by use of restricted tendering method based on a list of prequalified firms in accordance with section 29 (3) and 73 (2) (a) of the PPDA 2005. Section 73 (2) (b) of PPDA, 2005 allows use of restricted tendering in cases where there are only a few known suppliers of goods and services.

3.3.299 Consequently, NIB sent invitation to ten (10) prequalified firms to bid for construction works. Bids were subsequently opened and evaluated resulting to award of the tender to M/S. Property World Ltd at a contract price of Kshs.123,824,466.As at the time of completion of the audit, the contractor had been paid a total of Kshs.123,778,150.

3.3.300 We visited the project and also reviewed reports by NIB Engineering Department and established that the project had been completed in June 2016 as follows:

Table 19: Project status for South West Kano Irrigation Development Project

	Activity	% completion
1.	Diversion Weir across River Nyando 33m long	100
2.	Intake structures up to 3m ³ through the 2 pipelines	100
3.	Conveyance pipeline 780m with inspection chamber	100

	Activity	% completion
4.	Main Canal,3 off-takes,2 foot bridges, 1 main bridge side weir, inverted siphon, outlet structure and side road	100

F. MIRICHU MURICHA IRRIGATION SCHEME DEVELOPMENT PROJECT: MURANGA COUNTY

3.3.301 The project was allocated a total of Kshs.246,041,209 in the development budgets for the financial years 2010/2011 to 2015/2016. The Nature of the work involved construction of intake works and conveyance system at a contract sum of Kshs.160,535,658.

3.3.302 The 1st phase of the contract was awarded on 13th February 2013 to M/S Benisa Limited at a contract sum of Ksh.80, 446,184. The contract was valid for a period of six months.

3.3.303 The tender committee meeting held on 19th September 2013 approved the Engineering Department's request for procurement of construction works for 2nd phase of the project. The advertisement was done in the Daily Nation and The Standard Newspapers on 20th September 2013 resulting in award of the tender to M/S Benisa Limited Ltd at a contract sum Ksh.80,089,474 valid for 12 months. As at the time of completion of audit, a total of Kshs.152,140,633 had been paid to the contractor for the two phases .

3.3.304 A site inspection conducted by the special audit established that construction of part of project civil works was complete (Pipeline, gully and river crossing), however production had not commenced since the submains and distribution pipeline had not been constructed. The project targeted to cover 1,000 ha of irrigation land. An additional Kshs.350,000,000 was required to complete the project.

3.4 Value for Money

3.4.1 Value for money auditing examines whether public institutions or government programs have attained effectiveness, economy and efficiency in the management of resources at their disposal. The special audit considered effectiveness and economy as key parameters to ascertain Value for Money.

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- 3.4.2 Effectiveness is the extent to which objectives have been achieved and the relationship between the intended and actual impacts of activities. In this special audit, effectiveness was determined by: Confirming whether the project existed on the ground; and whether it was in production as anticipated in the feasibility study.
- 3.4.3 Economy refers to acquiring resources at the lowest cost while having due regard to quality. Economy was determined by: Evaluating whether or not the procurement process used to identify project contractors was done in a manner that promotes competition to ensure project goods and services were acquired at the lowest cost while having due regard to quality; and Engaging Irrigation Engineering experts to evaluate the quality of work done in comparison with approved specifications.
- 3.4.4 A total of Kshs.11,912,672,043 was incurred by NIB for construction works for the projects under review. Due to time and resource constraint, the special audit inspected projects of total contract value of Kshs.11,586,592,962 representing ninety six (96%) of NIB Capital Project Portfolio under review with a view to test Value for Money. The projects were deemed high risk due to high contract sum and allegations of nonexistence. **Appendix V** details the projects inspected and justification for their selection.
- 3.4.5 The special audit considered a project to have realized Value for Money if it attains both effectiveness and economy. In this regard, projects amounting to Kshs.550,615,465 were deemed to have realized Value for Money since the procurement process was done in manner that promoted competition thereby maximizing on economy and efficiency as articulated in section 2 (a) of the PPDA,2005.
- 3.4.6 Further, technical audits for the aforementioned projects by Irrigation Engineers engaged by the special audit established that the quality of work was done as per the specifications and the projects were in production as anticipated in respective feasibility studies. The projects were: Nadoto, Kolyoro, Nadapal, Kalemnyang phase I &II and Turkwel Irrigation projects all in Turkana County and South West Kano Irrigation project in Kisumu County.
- 3.4.7 Projects amounting to Kshs.215,387,201 in Turkana County had not realized Value for Money since they had not been put into production due to structural

destructions of the project components. This included Katilu Drip Irrigation project, Morulem phase I & II, Nakamane and Naremit Irrigation Projects.

- 3.4.8 Galana Kulalu Food Security project amounting to Kshs.8,249,275,475 had not realized Value for Money either since production was below the projected threshold hence not effective . Further, the project contractor was not identified in a competitive manner.
- 3.4.9 Contractual work for, Lokipetot Irrigation Project (Turkana County), Chemase Irrigation Project (Nandi County), Lower Sio and Mirichu Murika Irrigation projects whose contract sum was Kshs.2,571,314,821 were still ongoing and therefore Value for Money could not be established. Some of this projects like the lower Sio were having implementation challenges (Contractor was not on site as at the time of audit) that could compromise the ability of the project to realize value for money.

Nadoto Irrigation Scheme

- 3.4.10 The project contract value was Kshs.79,974,700 out of which Kshs.79,800,449 had already been paid to the contractor. The following project components were found to be in existence and in production: Intake works, conveyance, hydraulic structures and drains. The crops grown by the farmers were sorghum, maize, green grams, cowpeas, watermelons and tomatoes as anticipated in the feasibility study. Though It was intended to benefit 1,200 households, Interviews with beneficiaries established that 1,586 households were benefiting from the project. In this regard, effectiveness had been attained.
- 3.4.11 However, the special audit noted the following risks that could hinder sustainability of the effectiveness: Inadequate Operation and Maintenance strategy leading to siltation; absence of flood protection structures that could lead to destruction of project components and inadequate farming skills and tools.
- 3.4.12 Procurement of project contractor was done in a competitive process resulting in the lowest technically evaluated bidder to be awarded the contract. Structures had been constructed as per the contract specifications. In this regard, the project had attained economy. There was therefore Value for Money on public funds incurred on the project.

Kolyoro Irrigation Scheme

- 3.4.13 The project contract value was Kshs.64,719,250 out of which Kshs.64,640,941 had already been paid to the contractor. An Audit Inspection by a Team of Irrigation Engineers established that the following project components were satisfactorily done as per approved specifications: Intake works, conveyance system, hydraulic structures, flood protection, perimeter fence and drains. The project was in production of the following crops: sorghum, maize, green grams, cowpeas, kales and bananas as anticipated in the feasibility study.
- 3.4.14 There were three harvests in a year that had resulted in improved food security among the beneficiaries. Inadequate farming tools and trainings were cited as some of the risks that may hinder full realization of the project effectiveness. Further, part of the farm had not been fenced resulting in destruction of crops by animals. Though the project had realized effectiveness, the aforementioned risks could erode the benefits that have accrued to beneficiaries.
- 3.4.15 Procurement of project contractor was done in a competitive process resulting in the lowest technically evaluated bidder to be awarded the contract. The project therefore attained both effectiveness and economy and was therefore a Value for Money.

Morulem Phase I Irrigation Scheme

- 3.4.16 The project contract value was Kshs.58,024,199 out of which Kshs.57,822,102 had already been paid to the contractor. Though the project was confirmed to be in existence, it had developed structural challenges that had hindered efficient flow of water to the farms. The project components were: Intake works, conveyance system and rehabilitation of hydraulic structures and Gulley control. The main canal had been blocked by loose soils resulting into silting of the canal. The scheme covers 728 hectares. Further, the main source of water for the project, River Kerio did not have capacity to supply reliable water flows for the project. The management was planning to construct a new dam (LOWAAT) to provide reliable water supply to the project.
- 3.4.17 Consequently, the project was not in use as at the time of audit. An interview with project beneficiaries however established that the project was in use producing maize and sorghum before it encountered structural damages. In this regard, the

project had not attained effectiveness. The special audit attributed this to absence of an appropriate Operation and Maintenance Strategy both at NIB and Project Committee level. However, the process of procuring the project contractor was done in a competitive manner resulting in the lowest evaluated technical bidder being assigned the tender. There was therefore no evidence that the project had attained a Value for Money.

Morulem Phase II Irrigation Scheme

- 3.4.18 The project contract value was Kshs.47,576,870 out of which Kshs.37,235,073 had already been paid to the contractor. Though the project was confirmed to be in existence, there was no evidence that the project had been tested and handed over to the community. The scheme covers 1214 hectares. Community members complained that the canal was excavated without consultations. This caused apathy and lack of community ownership.
- 3.4.19 The Irrigation Engineers engaged by this special audit verified the following works had been done as per specifications: Excavations for conveyance canals, division boxes, and road crossings. There was no crop production due to heavy and thick bush that appeared to be beyond capacity of farmers to clear. However, since the project components had not been tested, the special audit could not confirm the project effectiveness. In this regard, the project had not attained Value for Money.

Nakamane Irrigation Scheme

- 3.4.20 The project contract value was Kshs.49,720,000 out of which Kshs.49,258,070 had already been paid to the contractor. The key components of the project were Perimeter fence, gully control, main canal excavation, Road crossing and Riverbank/intake protection.
- 3.4.21 An inspection by a team of Irrigation Engineers engaged by the special audit established that though the aforementioned projects components had been done as per specifications, they had undergone some structural damages as follows: The perimeter fence had been destroyed by camels, the gully control was wearing away due to impacts of floods, Main canal had been silted. This hampered the supply of water to farms. Farmers were producing maize and sorghum in only one out of the three blocks and therefore production had not achieved its full potential. Consequently, the project had not attained Value for Money.

Lokipetot Irrigation Scheme

- 3.4.22 The project contract value was Kshs.59,826,117 out of which Kshs.57,037,658 had already been paid to the contractor. Though the project was confirmed to be in existence, there was no evidence that the project was in production. Project components included intake works, conveyance canals, hydraulic structures, drains, perimeter fence, land levelling and flood protection band. Irrigation Engineers engaged by the special audit assessed the project as seventy-five (75%) complete since construction works for perimeter fence, land levelling and flood protection band were ongoing. The project completion date had initially been set for April 2016, however this was delayed due to a conflict between residence of Turkana Central and Loima Constituencies over ownership of the project.
- 3.4.23 Though the process of procuring the contractor was done competitively thereby attaining economy, the special audit could not ascertain Value for Money since the project was still undergoing construction and therefore effectiveness could not be established.

Nadapal Irrigation Scheme

- 3.4.24 The project contract value was Kshs.63,983,393 out of which Kshs.56,008,510 had already been paid to the contractor. Irrigation Engineers engaged by the special audit established that project components had been implemented as per specifications. Public Participation was evident in all phases of the project. Occasional M&E and repair works beyond farmer's capacity was done by NIB upon farmer's request.
- 3.4.25 The project was in production and farmers had planted maize, sorghum and Cow peas as anticipated in the feasibility study. In this regard, the project had attained effectiveness. Procurement of the project contractor was done in a competitive manner resulting into awarding of the tender to the lowest evaluated technically responsive bidder thus achieving economy. The project therefore realized Value for Money.
- 3.4.26 The special audit also observed several challenges in implementing the project as follows: Infestation of Weeds, Inadequate training and sensitization of farmers on crop farming and absence of environmental conservation measures such as agro forestry.

Katilu Drip Irrigation Scheme

- 3.4.27 The special audit established that the following construction works had been undertaken as per the contract: settlement basin, bush clearing, pump house Irrigation, and concrete foundation platforms for tanks. MS. Appropriate Development Consultant had been awarded the contract at a sum of Kshs.61,429,692. Out of this the contractor had been paid Kshs.49,702,178.
- 3.4.28 Irrigation Engineers engaged by the special audit established that the following project components valued at Kshs.4,478,505 had not been implemented by the contractor as required in the contract:

Table 20: Project components not implemented-Katilu Irrigation Scheme

	Particulars	Amount (Kshs)
1	Shallow abstractions wells	189,945
2	Supply , delivery & installation of pumps and generating sets	2,548,560
3	Training	600,000
4	Operation of farm for two cropping periods	1,140,000
		4,478,505

- 3.4.29 It was also noted that though twenty five (25) tanks valued at Kshs.6,922,510 and a drip irrigation system valued at Kshs.1,700,000 had been procured and delivered as per the specifications, the items had not been installed , instead they had been kept in the project store. The project had stalled as the contractor had abandoned the site in the year 2014.
- 3.4.30 This implies that as at the time of abandoning the site, the contractor had not honored obligations amounting to Kshs.13,101,015.This comprises project components not implemented by the contractor (Kshs.4,478,505) and items procured but not installed (Kshs.8,622,510). The bushes and weeds in a fifty-acre land had regenerated while a section of the flood protection dyke had been breached by floods.
- 3.4.31 There was therefore no Value for Money on Kshs.49,697,993 paid to the contractor. It is recommended that NIB should apply relevant legal measures to

ensure that the contractor makes good any loss of public funds caused by his/her negligence in delivering contractual terms. include environmental conservation strategies in implementation of its project. Further, the remaining works should be completed to enable the project operationalized.

Kalemnyang Irrigation Scheme (Phase 1)

- 3.4.32 The project contract value was Kshs.92,990,077 out of which Kshs.92,911,533 had already been paid to the contractor .The key components of the project were: Intake works, Conveyance system, Hydraulic structures, drainage system, perimeter fence, flood protection and land preparation. The project was operational covering 1000 ha of land and benefiting 2,000 households. Crops grown included maize, sorghum and green grams as anticipated in the feasibility study. In this regard, the project had achieved effectiveness.
- 3.4.33 There were however some structural damages to the project caused by floods. This included a section of the canal, two road crossings and some sections of the dykes. The process of identifying the contractor was however done in a competitive manner. In this regard, the project had realized Value for Money.

Kalemnyang Irrigation Scheme (Phase II)

- 3.4.34 The project contract value was Kshs.54,269,168 out of which Kshs.50,195,738 had already been paid to the contractor. The key components of the project were: Intake works, Conveyance system, Hydraulic structures and River protection bank. The project was operational covering and crops grown included maize, sorghum and green grams as anticipated in the feasibility study. Irrigation Engineers engaged by the special audit established that project activities had been done in compliance with specifications. In this regard, the project had achieved effectiveness.
- 3.4.35 The project contractor had been procured in a competitive manner resulting in the lowest evaluated bidder being awarded the tender. In this regard, the project had realized Value for Money.
- 3.4.36 There were however some structural damages to the project caused by floods. This included erosion of a section of the River bank and some defects on the Division boxes.

Naremit Irrigation Scheme (Phase 1)

3.4.37 The project contract value was Kshs.48,356,440 out of which Kshs.30,005,432 had already been paid to the contractor .The key components of the project were: Intake works, Conveyance system, Hydraulic structures, Drainage system, perimeter fence, flood protection and land preparation. Only a small portion of the project (50 ha out of expected 159 ha) was in production. This was because key project components were said to have been swept by floods. This included the main canal and the main Divisional boxes. Irrigation Engineers engaged by the special audit attributed this to inadequate flood protection dykes. In this regard, the project had failed to realize Value for Money.

Turkwel Irrigation Scheme

3.4.38 The project contract value was Kshs.70,854,410 out of which Kshs.70,854,217 had already been paid to the contractor . Key components of the project were; intake works, road crossings, division boxes. The project components were found to have been done as per specifications. Though the project was in production and therefore considered effective, a section of the main canal was said to have been destroyed by floods. This pose a risk on the sustainability of the project effectiveness.

3.4.39 The process of procuring the project contractor was done in a competitive manner resulting in the lowest evaluated bidder being awarded the contract thereby enhancing economy. Consequently, Value for Money was realized public funds incurred by NIB on the project. However, NIB and other stakeholders at large needs to put in place an Operation and Maintenance Strategy that ensures proactive maintenance of the scheme.

Galana Kulalu Food Security Project

3.4.40 An amount of Kshs.8,249,275,475 had been incurred in the project. The process of procuring the project contractor was done through single sourcing without allowing for competitive bidding. In absence of a competitive bidding process efficiency and economy in procurement process cannot be guaranteed.

3.4.41 Further, the project actual production was still lower than the projected production in the feasibility study by thirty percent. While the feasibility study

anticipated a production of 44 bags per acre the actual production was 31 bags resulting to an underproduction of 13 bags per acre (30%). In this regard, the project was yet to realize Value for Money. However, it's worth noting that the project has the potential of realizing value for money if well managed.

Lower Sio Irrigation Development Project

3.4.42 An amount of Kshs.2,238,578,663 had been incurred in the project. Though the process of procuring the contractor was done competitively thereby attaining economy, the special audit could not ascertain Value for Money since the project was still undergoing construction and therefore effectiveness could not be established.

Chemase Irrigation Development Project

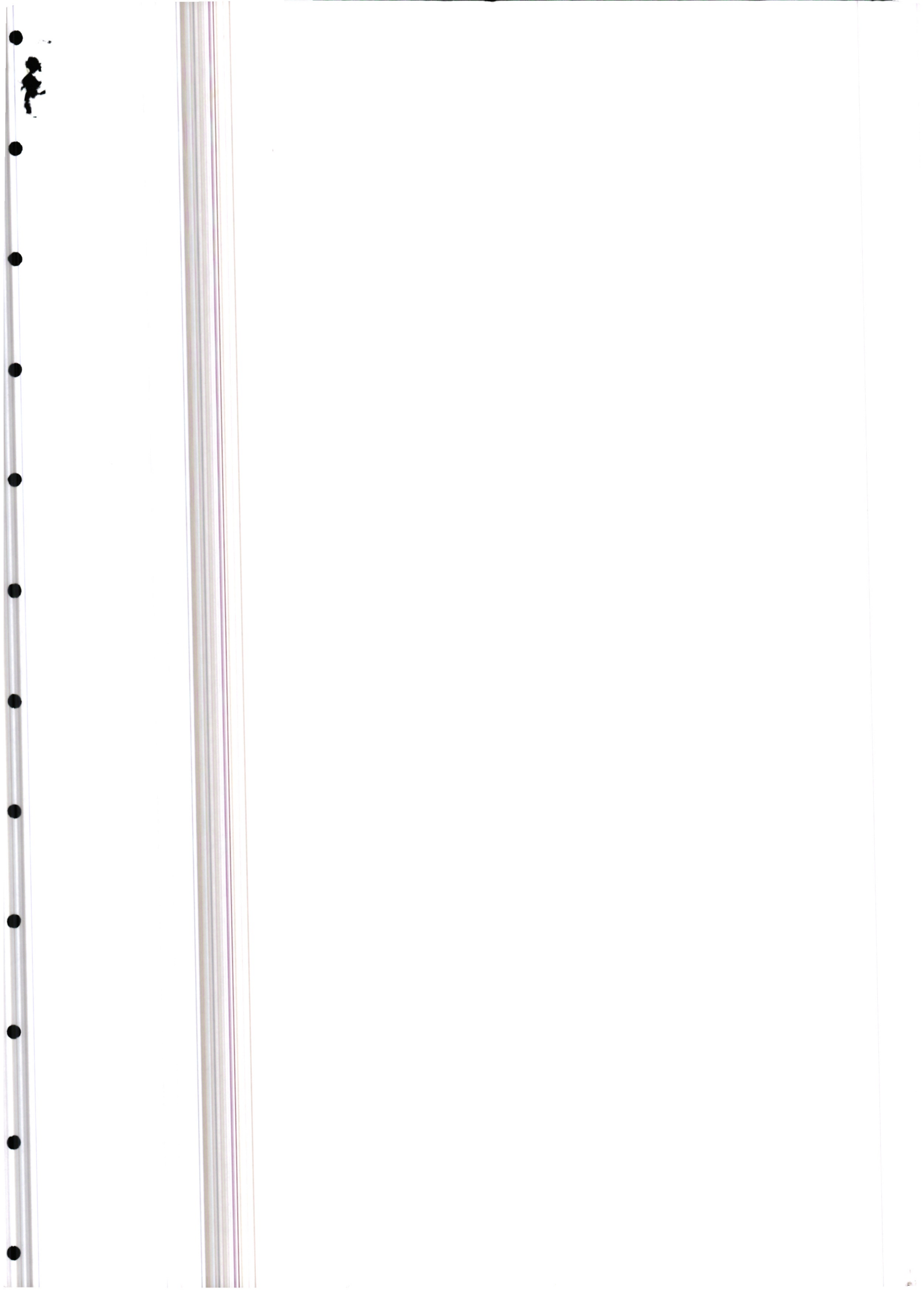
3.4.43 An amount of Kshs.172,200,500 had been incurred in the project. Though the process of procuring the contractor was done competitively thereby attaining economy, the special audit could not ascertain Value for Money since the project was still undergoing construction and therefore effectiveness could not be established.

South West Kano Irrigation Project

3.4.44 An amount of Kshs.123,824,466 had been incurred in the project. The project contractor was procured through a competitive process thereby promoting economy and efficiency in the procurement process. The project was in production and farmers had Rice as anticipated in the feasibility study. In this regard, the project had attained effectiveness. The project therefore realized Value for Money.

Mirichu Murika Irrigation Project

3.4.45 An amount of Kshs.160,535,658 had been incurred in the project. Though the process of procuring the contractor was done competitively thereby attaining economy, the special audit could not ascertain Value for Money since the project was still undergoing construction and therefore effectiveness could not be established.



CONTACTS

Office of the Auditor-General


Address: P.O. Box 30084-00100, NAIROBI.

Telephone: +254 796 52 85 60

E-mail: info@oagkenya.go.ke

Website: www.oagkenya.go.ke

 **@OAG_Kenya**

 **Office of the Auditor-General Kenya**