

# INNOVATION, TECHNOLOGY DEVELOPMENT AND TRANSFER PROGRAMME





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# **ACRONYMS AND ABBREVIATIONS**

DIT Directorate of Industrial Training

ITDTP Innovation, Technology Development and Transfer programme

KCCA Kampala Capital City Authority KMC Kiira Motors Corporation

LEAP Agri-Long-Term EU-Africa Research and Innovation Partnership on Food

and Nutrition Security and Sustainable Agriculture

LGFC Local Government Finance Commission

MAAIF Ministry of Agriculture, Animal Industry and Fisheries MLHUD Ministry of Lands, Housing and Urban Development

MMISTC Machining, Manufacturing, and Industrial Skills Training Centre
MFPED Ministry of Finance, Planning and Economic Development
MoGLSD Ministry of Gender, Labour and Social Development
MoICT Ministry of Information & Communication Technology

MoLG Ministry of Local Government MoPS Ministry of Public Service

MoSTI Ministry of Science, Technology and Innovation MTIC Ministry Trade, Industry and Cooperatives

MWE Ministry of Water and Environment

NARO National Agricultural Research Organisation

NBC National Biosafety Committee

NCHE National Council for Higher Education

NDP National Development Plan

NIRA National Identification Registration Authority
NITA-U National Information Technology Authority

NPA National Planning Authority
OAG Office of the Auditor General
OPM Office of the Prime Minister
OP Office of the President

PIAP Programme Implementation Action Plan

PIBID Presidential Initiative on Banana Industrial Development

PLC Programme Leadership Committee

PPDA Public Procurement and Disposal Authority

PWG Programme Working Group

STEM Science, Technology, Engineering and Mathematics

TWG Technical Working Group UBOS Uganda Bureau of Statistics

UIRI Uganda Industrial Research Institute

UNCST Uganda National Council for Science and Technology

UNDP United Nations Development Programme

URA Uganda Revenue Authority

URSB Uganda Registration Services Bureau
UVRI Uganda Virus Research Institute

WAITRO World Association of Industrial and Technological Research Organisations

WIPO World Intellectual Property Organisation

# **ACKNOWLEDGEMENTS**

This Handbook was developed by Mr. Ronald Paul Konde. He was assisted by a group of gender and equity experts who included: Mrs. Margaret Kakande; Mr. Esau Mutekanga; Mrs. Angella Ssali; Ms. Lydia Nabiryo; Mr. Geoffrey Isiko; Ms. Harriet Asibazuyo; Ms. Ida Kigonya; Mr. John Paul Apire; Mr. Richard Kityo; Mr. Franklin Maloba Wanyama; Ms. Harriet Pamara; Dr. David Mpiima; Mr. Cornelius Magara Kagoro; Mr. Kenneth Atim; Mr. Hillary Muhumuza; Ms. Agnes Rebecca Nakimuli; Ms. Sylvia Tereka; Mr. Alex Ssebagala; Mr. Deogratius Kiryoowa; Mrs. Elliot Orizaarwa Tumwijukye; and Mr. Vincent Kiribakka. This is also to thank Ms. Maria Muzaaki who provided the secretarial support.

The Handbook also benefitted from input from officials from the programme institutions who participated in the dialogue. These included: Alice Mubiru; Rebecca Kushemererwa; Elias Bwambale; Vanessa Nakalanzi; Deborah Kasule; Beth Mutumba; Steven Sebbale; James Beronda; Andrew Otim; Carolyne Muyama; Sarah Kyobe; Raymond Nuwenyesiga; Eunice Kabagati; Rosette Assimwe; Jaime Byaruhanga; William Mutumba; Irene Karungi Sekitoleko; Brandy Valentine Azeirwe; Cuthbert Atwongvere; Arthur Asirike; Patrick Okoth; Richard Akomi; and Husnah Matovu.

The production of the Handbook was facilitated by UN WOMEN.

# **FOREWORD**

It is mandatory for Ministries, Departments, Agencies (MDAs) and Local Government (LGs) to address gender and equity issues in formulation of Budget Framework Papers and Ministerial Policy Statements. However, there are still issues of capacity to effectively achieve this objective. The last five consecutive assessments of compliance for Gender and Equity Budgeting, by the Equal Opportunities Commission revealed persistent limited capacity of MDAs to discern gender and equity issues. It was also noted that the gender and equity issues being addressed were not necessarily aligned to the commitments in the National Development Plans.

A lot of effort was put into mainstreaming gender and equity commitments in the third National Development Plan (NDPIII). These were integrated at the strategic level, as well as in the 20 programmatic areas. In order to mobilise the MDAs and LGs to ensure effective implementation of the NDPIII gender and equity commitments, programmatic handbooks have been developed.

These Handbooks spell out the gender and equity issues under each programme; the proposed interventions in NDPIII, the related actions in the Programme Implementation Action Plan, and performance indicators. In addition, there are emerging gender and equity issues resulting from COVID-19 effects that were agreed on during the dialogue with all programme stakeholders.

I urge you to use this tool, to prioritise interventions that will foster inclusive growth and development which the country is pursuing.

Ramathan Ggoobi

Permanent Secretary/Secretary to the Treasury

# **KEY DEFINITIONS**

### Gender

Socially constructed roles and responsibilities assigned to men/women, girls/boys in a given culture or location.

# Equity

Fairness and justice in the; treatment of individuals or groups of people; distribution of resources; provision of opportunities and services; and protection under the law. It takes into account, varying abilities/capacities, geographical disparities, demographical and social-economic differences.

### Gender Issue

This is a state/condition/situation of inequality/imbalance between males and females because of gender roles; discrimination/ neglect and/or marginalisation within society.

### **Equity Issue**

Unfair and unjust situations that put the lives of the vulnerable in dire poverty, limited access to services and a state of hopelessness.

# **Gender and Equity Responsive**

This is the ability of an individual or agency to consider the needs of women, men, boys and girls in light of their age, disability, or geographical location and take appropriate action.

# **Gender and Equity Budgeting**

Gender and Equity budgeting is an approach of allocating and utilizing government resources and programs taking into consideration of the different needs, interests and constraints of the various categories of people without any discrimination and addressing any imbalances that exist.

# **Programme**

A group of related interventions/outputs that are intended to achieve common outcomes within a specified timeframe.

# **Sub-Programme**

A group of related interventions/outputs contributing to a programme(s) outcomes at the MDA level.

# Programme Implementation Action Plan (PIAP)

A detailed description of the activities, targets and resources required to deliver a programme within a given timeframe. The PIAP operationalises the NDPIII Programme and is it from the PIAPs that MDAs are expected to draw their strategic plans.

### **Indicators**

This is a quantitative (calculable) or qualitative (perception) factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance.

### Commitments

These are pledges/obligations to be fulfilled in terms of outputs and outcomes.

### Interventions

These are actions to be undertaken to solve an identified problem/issue.

### **Outcome**

The consequence of an action.

### **Outcome Indicator**

A measure of whether the program is achieving the expected effects/changes in the short, intermediate, and long term.

### Intermediate Indicator

A measure of progress to achieving a higher-level goal/end result.



### 1.0 Introduction

This Handbook spells out the gender and equity issues as well as planned interventions/actions in the Innovation, Technology Development and Transfer Programme during the third National Development Plan (2020/21 to 2024/25).

# 1.1 Background

The Third National Development Plan (NDP III) comes at a time when Uganda, like the rest of the world, is confronted with the COVID-19 pandemic. Now more than ever, the slogan of the Sustainable Development Goals of leaving none behind is critical. Fairness of treatment to the needs of people in all walks of life is vital for development. Gender equity is required in all aspects of life including; education, health, nutrition, decent employment, access to economic assets and resources, political opportunities and freedom from coercion and violence for men and women, boys and girls and the elderly. Gender and equity are crucial to ensure that gender issues are integrated into all national policies, plans and programs for development.

It is mandatory for Ministries, Departments, Agencies (MDAs) and Local Government (LGs) to address gender and equity issues in the formulation of Budget Framework Paper and Ministerial Policy Statements. However, there are still issues of capacity to effectively achieve this objective. The Equal Opportunities Commission's last five consecutive assessments of Gender and Equity Budgeting (GEB) compliance of Budget Framework Papers and Ministerial Policy Statements revealed the persistent limited capacity of MDAs to discern gender and equity issues. It was also noted that the gender and equity issues being addressed were not necessarily aligned to commitments in the National Development Plans.

Challenges and lessons from NDPI and NDP  $II^1$ , showed seven (7) persistent gender and equity sensitive concerns. These include:

- The large proportion of households still stuck in the subsistence economy,
- High cost of electricity,
- Persistent vulnerabilities and wide-regional disparities in attaining required poverty reduction targets,
- Low investment in social protection systems,
- The poor quality of education characterised by the low levels of literacy and numeracy, coupled with the high rate of school dropouts,
- High burden of disease amidst low functionality of health facilities, and
- Under nutrition among children and women remains high.

A lot of effort was made to mainstream the gender and equity commitments in NDPIII. These were integrated at the strategic level as well as 20 programmatic areas. There is a need to ensure effective implementation of these gender and equity commitments by MDAs and LGs.

### 1.2 Justification for the Handbook

To avoid the slow implementation of the gender and equity responsive interventions, this time round, there is a need to mobilise MDAs and LGs. This necessitates the development of a mobilisation tool. This Handbook has been customised to facilitate the mobilisation, spell out the gender and equity issues, the proposed gender and equity interventions, outputs and their performance indicators.

The Handbook will simplify the integration of gender and equity responsive interventions into the Budget Framework Papers and Ministerial Policy Statements. This will strengthen the capacity of MDAs and LGs that has been inadequate.

### 1.3 Intended Users of the Handbook

This Handbook is intended for officials involved in planning, budgeting and monitoring at Central and Local Government levels, however, it can also be used by other stakeholders.

# 1.3.1 Primary Users

The primary users of the Handbook are the Programme Leadership Committee; Programme Technical Committee, Programme Working Group and Technical Working Group Sub-committees; specifically, decision-makers (Ministers, Permanent Secretaries, Directors, Commissioners, Programme/Project Managers). Technical officers and politicians in charge of planning, budgeting, implementation, monitoring and evaluation can also use the Handbook.

# 1.3.2 Secondary Users

These will include Civil Society Organisations (CSOs), Researchers, Development Partners, Academia, Gender and Equity Trainers, plus Assessors.

### 2.0 How to use the Handbook

The Handbook shall be used in the preparation of Budget Framework Papers for MDAs and Local Governments, and Ministerial Policy Statements for MDAs and Missions. The BFPs and MPSs are policy documents structured for both reporting and planning purposes. The users should ensure integration of gender and equity outcomes, interventions, outputs and their respective indicators across all the sections.

Users should clearly highlight how the intended target population has accessed, participated, benefited from the interventions as well as their disaggregation in terms of location - (rural, urban, hard-to-reach and hard-to-stay), equity - (children, youth, elderly, persons with disabilities, chronically sick and other vulnerable groups), gender - (women/girls, men/boys) and inclusiveness of the interventions. The above-mentioned parameter should also be given priority during annual and quarterly work plan development and reporting at all levels.

Table 1: How to use the Handbook during the Planning and Budgeting Process

Table			labook during the Flannin	
No.	Section of the BFP	Section of MPS	Application of the Handbook	Example
1	Overview	Overview	Indicate desired gender and equity outcomes, objectives, spent budget, medium-term allocations and projections	To develop requisite Science, Technology and Innovation (STI) infrastructure
2	Past Per- formance	Achievement at Half Year	These should be drawn from the outcome performance indicators – the change desired when gender and equity issues are addressed.  Indicate the gender and equity issues among the key performance issues to be addressed by the sector. Select these from the list of gender and equity issues.  Indicate whether any gender and equity issues were addressed in the previous FY.  List the outputs derived from the interventions that you carried out. These can be picked from the gender and equity issues and proposed strategies/interventions.	Outcome Increased innovation in all sectors of the economy  Outcome indicator No. of incubators established and operationalised  Outputs completed Increased Research, Innovations and development of appropriate Technologies  Output indicator Proportion of scientists/ innovators supported through the National Research and Innovation Fund
3	Medium Term Plans	Medium Term Plans	Indicate medium-term plans by listing which interventions shall be carried out in accordance with the planning framework i.e., NDP III.	Medium-term plans Support the establishment and operations of technology and business incubators, and technology transfer centres
4		Current Year Plans	Indicate key sector output and outcome performance indicators to show that	Planned outputs Establish a centre of excellence for indigenous technologies
5	Outcome, inter- mediate outcome indicators	Outcome, intermediate outcome indicators		Intermediate outcome STEI infrastructure established Intermediate outcome indicator STEI infrastructure development strategy in place

# 3.0 Gender and Equity Responsiveness in the Innovation, Technology **Development and Transfer Programme**

Budgeting is the tool through which Government translates its priorities into public services. The government has also prioritised gender and equity as the best approach to inclusive national development and equitable distribution of resources, opportunities, and wealth. Therefore, Gender and Equity Planning and Budgeting is an approach of allocating and utilising resources taking into consideration the different needs, interests, and constraints of the various categories of people without any discrimination and addressing any imbalances that exist.

Innovation, Technology Development and Transfer is one of the 20 programmes of the NDPIII and it operationalises objective three to, "consolidate and increase the stock and quality of productive infrastructure". The Programme seeks to address key challenges which include:

- Enhanced development of appropriate technologies,
- ii. Increased Research and Development (R&D) activities in the economy,
- iii. Increased utilisation of appropriate technologies, and
- iv. An enabling environment for STEI created.

Most of these challenges are part of the gender and equity issues which when addressed shall improve the livelihood of Ugandans especially the vulnerable persons.

# Therefore, the objectives of the programme are to:

- To develop requisite STI infrastructure,
- To build human resource capacity in STI,
- iii. To strengthen R&D capacities and applications,
- iv. To increase development, transfer and adoption of appropriate technologies and nurture the local innovation potential, and
- To improve the legal and regulatory framework.

# 3.1 Gender and Equity Issues and their Responsive Interventions in the Innovation, Technology Development and Transfer Programme

This section elaborates the gender and equity issues in the Innovation, Technology Development and Transfer Programme and how they affect programming for inclusive development. It is intended to guide users to effectively implement gender and equity responsive interventions. Table two (2) highlights the gender and equity issues and their justifications, related interventions, outputs and corresponding actions in the Programme Implementation Action Plan (PIAP).

٩P	Corresponding Actions in the PIAP	Establish a centre of excellence for indigenous technologies	Scale-up promising innovations to commercialising levels
in the NDPIII/PI	Output in the PIAP	R & D laboratories (centres of excellence) established	Sector R&D investments coordinated
Table 2: Gender and Equity Issues and their Responsive Interventions in the NDPIII/PIAP	Interventions in the NDPIII	Support the establishment and operations of technology & business incubators and technology transfer centres	Increase investment in R&D in key priority sectors like; agriculture, oil & gas, energy, health, transport
s and their Resp	Justification/Impact of the Gender and Equity Issues	The creation and awareness of indigenous and new technologies empower the youth to acquire skills that can enable them to access employment and engage in productive activities.	Limited support for research and development (R&D) deters the development of new and modification of existing technologies/innovation s which are subscribed to by the vulnerable groups.
er and Equity Issue	Gender/ Equity Issues	Lack of skills to exploit existing opportunities Research and Development (R&D) research funding is not often gender-inclusive thereby leaving many vulnerable groups behind R&D facilities (including R&D laboratories) are not equitably distributed across the country	Limited production of key priority sectors like agriculture, oil & gas, energy, health and transport technologies  There is limited investment in gender-appropriate R&D fields like in maternal and child care, women health, gender-informed energy system etc  There is limited investment in technologies that address distinct needs of
Table 2: Gende	Sub-programme	Research and Development	

Corresponding Actions in the PIAP				
Output in the PIAP				
Interventions in the NDPIII Output in the PIAP				
Justification/Impact of the Gender and Equity Issues				
Gender/ Equity Issues	PWDs (e.g. assistive technologies)	Traditional R&D hardly utilises/incorporates existing indigenous knowledge; local women's knowledge;	There is limited stakeholder consultation on the real research needs of communities, thereby resulting into uncoordinated and often inapplicable research findings	Small holder farmers and other minimalist groups are hardly involved in R&D stakeholder mapping processes
Sub-programme				

Sub-programme	Gender/ Equity Issues	Justification/Impact of the Gender and Equity Issues	Interventions in the NDPIII	Output in the PIAP	Corresponding Actions in the PIAP
Biosciences	Limited low cost and user- friendly domestic cooking fuels.  Women's involvement in certain focus areas like commercial insects, sericulture and apiary is limited	The use of rudimentary methods of lighting and cooking in households increases health risks to women, girls and vulnerable groups who are the majority users of cooking fuels.	Support academia and research institutions to acquire R&D infrastructure	Biosciences centres established	Establish biosciences and biomass technology development centres
	There is limited participation of women in the design and implementation of the Biosciences Centre				
	There is limited accessibility and community engagement for hard to reach populations in the biosciences.				
	Absence of gender disaggregated data on knowledge and utilisation of climate-smart technologies				
	Absence of deliberate efforts to engender marketing and transfer of climate-smart technologies.				

Sub-programme	Gender/ Equity Issues	Justification/Impact of the Gender and Equity Issues	Interventions in the NDPIII	Output in the PIAP	Corresponding Actions in the PIAP
	There is limited participation of women in biosciences and bio-based enterprises in Uganda Women's involvement in certain focus areas like commercial insects, sericulture and apiary is limited				
Innovation and Technopreneurship	Lack of appropriate technologies and skills There is limited number of women-led value addition industries supported in the TBIs/Science Centres; There is limited number of women, PWDs, youth and small scale enterprises-oriented incubation centers Safety measures in the TBIs are often not genderpresent Available training opportunities in the TBIs and Skilling centers are not	Lack of business incubation, industrial designing centres hinder the acquisition of knowledge and skills among the youth, which makes it hard for them to access, participate and benefit in the development initiatives. It also limits the production and availability of new technologies.	Support the establishment and operations of Technology & Business Incubators and Technology Transfer centres	Technology Business Incubation (TBIs) established and operationalised including training centres.      Engineering machining, manufacturing and skills enhancement centres established     Science centres for STEI advancement and promotion established of Green incubation facilities for integrated production constructed and equipped	Establish an industrial designing centre in all regions of the country.      Industrial business centres established with incubation and value addition facilities.

Sub-programme	Gender/ Equity Issues	Justification/Impact of the Gender and Equity Issues	Interventions in the NDPIII	Output in the PIAP	Corresponding Actions in the PIAP
	effectively communicated to women participants, PWDs, and people from poor background				
•	Limited employment opportunities in the Banana Value Chain	Enhancement and operationalisation of the Banana Value chain would increase	Establish the banana industry support infrastructure	Banana industry infrastructure park established	Operationalise the Banana value addition Centers
	Number of support services provided to enhance employment	employment opportunities and knowledge of new			
	opportunities for women, youth and other vulnerable groups are limited;	products, targeting youth and women who are the majority in agriculture.			
•	Limited patenting of local content	The absence of a functional IP framework deprives innovators	Strengthen the Intellectual Property (IP) value chain management	IP support infrastructure established	Support innovators and researchers in the acquisition of IPRs including
	Limited number of youth trained in IP for product commercialisation	and inventors of rights of ownership and royalties, which mainly	,	<ul> <li>Utilisation of the IP system enhanced</li> <li>Intellectual Property</li> </ul>	Patents, Trademarks, Utility Models, Industrial Designs
	The percentage of SMEs integrating IP into planning and budgeting processes remains low	affects your and MSMSs. This disempowers them and stifles the industry and loss of revenue.		value chain (generation, protection, commercialisation & enforcement) enhanced.	commercialisation toolkits for MSMEs
	There is limited awareness of IPR among firms and communities				
	There is limited capacity of vulnerable groups to effectively benefit from IPRs				

Sub-programme	Gender/ Equity Issues	Justification/Impact of the Gender and Equity Issues	Interventions in the NDPIII	Output in the PIAP	Corresponding Actions in the PIAP
	Limited capital to develop region-specific enterprises. Limited number of women and youth groups involved in the Shea nut value chain remains regionally excluded to the northern part of Uganda  The percentage of SMEs integrating IP into planning and budgeting processes is low.	Different regions have different comparative advantages, identification and establishment of enterprises enables access to capital creates employment for youth and women and vulnerable groups, increases productivity and incomes.	Support development and commercialisation of commodities and other products from enterprises and innovations	Identified commodities commercialised	Establish and operationalise the Shea nut value addition centre     Develop and operationalise the project to produce chlorine from Lake Katwe Salt.     Establish and operationalise a Sweet Potatoes value chain in Busoga and Teso.
	Lack of quality products	The absence of a policy, laws and regulations puts consumers at risk of getting adulterate products and reduces the competitiveness of domestic products.	Support the development of standards for domestic products and services	Domestic products and services standards developed	Develop standards for selected products & services in Science and Technology e.g. packaging products, furniture, STEI parks etc.

Sub-programme	Gender/ Equity Issues	Justification/Impact of the Gender and Equity Issues	Interventions in the NDPIII	Output in the PIAP	Corresponding Actions in the PIAP
	Low uptake of science subjects by students	Poor attitude towards science subjects reduces its uptake and development of knowledge and skills in scientific innovations and development of industry products.	Develop a National Technology Development and Transfer Regulatory Framework	National Technology Transfer Strategy developed	Develop social safety parameters for technology transfer
STEI Human Resource and Institutional Capacity	Low liferacy and skills levels	Limited skills limit SME operators, youth, women and PWDs to acquire relevant skills and technologies for proper business management and access to employment opportunities and services.	Support mass-level skilling and training programs for youth, women, informal sector and SME operators	Informal business sector- Juakalis supported with appropriate technology business skills	Develop and implement mass-level skilling and training programs for youth, women, informal sector and SME operators     Develop and implement Uganda National Strategy and Plan on the Informal Sector Support     Design and implement informal abording and Plan or the Informal Sector Support

# 4.0 Programme Gender and Equity Performance Assessment

The Innovation, Technology Development and Transfer Programme aims at achieving several outcomes namely;

- Increased innovation in all sectors of the economy, i.
- Enhanced development of appropriate technologies, ii.
- Increased R&D activities in the economy, iii.
- iv. Increased utilisation of appropriate technologies,
- An enabling environment for STEI created. V.

# These outcomes are gender and equity responsive and are measured for the five (5) years of the NDP III against their respective indicators of;

- i. Increase the Global Innovation Index from 25.3 to 35.0:
- ii. Increase Gross Expenditure on R&D as a percentage of GDP (GERD) from 0.4 percent to 1 percent;
- Increase business enterprise sector spending on R&D (percent of GDP) from iii. 0.01 percent to 0.21 percent;
- Increase the number of Intellectual Property Rights registered per year from iv. 2 to 50, 17.2



Table 3: Selected Gender and Equity Output Performance Indicators

ומטות טי טתותכו	ממ כעוומעו	and Equity	Output Ler	lable 3. Selected Gender and Equity Output Ferrormance marcators	2012					
Sub-Programme	Objective	Interventions	Outputs	Indicators	Baseline		Targ	Targets (Financial Year)	ial Year)	
						2020/21	2021/22	2022/23	2023/24	2024/25
Science Research	To develop	Support the	Increased	Proportion of	0.14	0.14	0.2	0.25	0.3	0.35
and Development	requisite STI	establishment and	Research,	scientists/innovators						
	infrastructure	operations of	Innovations and	supported through the						
		Technology &	development of	National Research and						
		Business	appropriate	Innovation Fund						
		incubators and	Technologies	Proportion of	-	5	7	12	15	70
		Technology		prototypes developed						
		Transfer centres		into products						
	To strengthen	Support academia	Increased	Percentage of research	0.1	0.15	0.17	0.2	0.25	0.3
	R&D	and research	Research and	products						
	capacities and	institutions to	Development	commercialised						
	applications	acquire R&D		National Research	0	0	1	0	0	0
		infrastructure		Agenda in place						
				No. of research projects	200	200	006	1,100	1,300	1,500
				cleared						
				STEI information	0	0	0	1	0	0
				management system						
				developed						
				National STEI surveys	0	0	_	0	_	_
				conducted						

Sub-Programme	Objective	Interventions	Outputs	Indicators	Baseline		Targ	Targets (Financial Year)	ial Year)	
	Strengthen the mechanisms	Establish a material science,	Increased utilisation of	Functional STEI think tank established	0	0	-	0	0	0
	and processes for technology	nano & bioscience technology	appropriate technologies	No. of technologies developed		3	2	7	6	12
	development, transfer, adoption and	centres; Space Science and Aeronautics		No. of technologies transferred (national and local)		1	က	Ω.	7	6
	nurture the national innovation potential	Technology institute and Nuclear Science, Research and Development Centre		Technology adoption rate		0.15	0.16	0.17	0.18	0.20
Biosciences Development	Develop requisite STEI	Support academia and research	Increased innovation in	No. of R&D laboratory centres established	0	0	0	-	_	0
	infrastructure	institutions to acquire R&D	biosciences	No. of R&D laboratory centers rehabilitated	0	0	0	2	_	0
		infrastructure		No. of biosciences centres established	0	0	0	-	0	-
	Strengthen R&D capacities and	Develop, oversee and implement programmes in	Increased Biosciences R&D	Proportion of R&D projects in new and emerging areas	0	0	0.12	0.14	0.16	0.18
	applications	new and emerging areas of space, marine, Biosciences, Virology, nuclear, data and climate science, Nanotechnology, biotechnology among others		No. of biosciences products developed	0	7	10	12	15	17

Sub-Programme	Objective	Interventions	Outputs	Indicators	Baseline		Targ	Targets (Financial Year)	ial Year)	
Innovation and Technopreneurship	Increase development,	Support the establishment and	Increased utilisation of	% uptake of new and emerging technologies		5	10	15	70	25
	transfer and adoption of appropriate	operations of technology & business	appropriate technologies	No. of Intellectual Property Rights acquired		20	20	02	100	120
	technologies and	incubators and Technology		Royalties received (in USD) for use of IPRs		1000	1500	2000	2500	3000
	innovations	Transfer centres		Rate of adoption of locally developed		0.1	0.15	0.20	0.25	0.3
		Strengtnen tne Intellectual		technologies						
		Property (IP) value chain management								
Engineering and Technology Development	Develop requisite STEI infrastructure	Support the establishment and operations of	Increased innovation in all sectors of the	STEI infrastructure development strategy in place	0	0	0	-	0	0
_		Technology & Business Incubators and Technology	economy	UN Innovation Lab for Least Developed Countries	0	0	0	-	0	0
		Transfer Centres		No. of science parks constructed	0	0	0	-	0	0
				No. of science Research and	0	0	0	0	0	-
				Development centers developed						
				Satellite ground station established	0	0	0	_	0	0
				Space science and aeronautics technology agency established	0	0	0	0	1	0
				agono) comence						

Sub-Programme	Objective	Interventions	Outputs	Indicators	Baseline		Targ	Targets (Financial Year)	ial Year)	
	Build Institutional and human	Support mass- level skilling and training programs	Enhanced development of appropriate	No. of Technology Skills Development Initiatives undertaken	0	0	2	2	2	2
	resource capacity in STEI	for youth, women, informal sector and SME operators	technologies	No. of technicians skilled	0	0	10	50	100	150
	Strengthen mechanisms and processes	Design and support skills development in	Increased utilisation of appropriate	National Technology Transfer Strategy in place	0	0	0	1	0	0
	for technology development,	the areas of nanotechnology,	technologies	No. of technology needs assessments	1		-		-	_
	adoption and nurture the national innovation	space exporation, nuclear technology, biosciences, engineering and		חומנומאמוו						
Institutional and	poteriual	science fields Develop.	Enhanced	National Apprenticeship	0	0		0	0	0
Human Resource	Institutional	Implement and	development of	Program established	,	,		,	,	,
Capacity Development	and human resource	monitor the STEI policies, laws and	appropriate technologies	STEI integration guidelines developed	0	0	-	0	0	0
	capacity in STEI	regulations		Percentage of MDAs integrating STEI	10	15	20	25	30	20
				Innovative strategies for implementing SDGs developed	0	0	-	0	0	0
				STEI Policy developed	0	0	-	0	0	0

# 5.0 Emerging Issues

During the dialogue held with stakeholders in the Innovation, Technology Development and Transfer Programme, the following were the emerging issues for consideration during the midterm review of the National Development Plan (NDPIII) 2020/21 to 2024/25 and NDPIV.

- Several people especially those in rural areas have not been able to access and appreciate information about programmes promoting innovation and technology development. Awareness creation programmes should be more emphasised so that information is not limited to the educated.
- How are women and other vulnerable groups involved in the design of the bio-sciences centre? Will, there be spacing for nursing mothers, and guotas for women.
- Considering the governance of the bio-sciences centres what is the composition of the boards?
- The programme lacks gender-disaggregated data (GDD) so there is a need for strategies to ensure it is given affirmative action in terms of the collection of this data.
- The EOC assessment largely considers GDD when rating yet being nascent sector/programme, it has minimal data.
- Institutions like Kiira Motors Corporation face challenges when trying to hire female engineers as few women apply when jobs are advertised. This calls for an action that supports women to study science courses like engineering so that a large pool of female engineers is available for employment in this sector.
- Women are dropping out of engineering jobs later in their careers and this creates a gap in progression. Many of them drop out because of a lack of opportunities and to attend to their caregiving roles. This calls for a policy action that supports career progression for women in the engineering/science fields.
- Young women are being encouraged to take up engineering courses but they are not being supported to stay in the career once they leave the university. In addition, the Engineers Registration Board is mostly composed of men so this could limit the widespread appreciation of various gender issues.
- The existing policies and guidelines are informed by the cultural and structural frameworks. Human resource manuals should be restructured to support women to stay and progress in their careers.

### References

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