



NATIONAL AGRICULTURAL MECHANIZATION POLICY (NAMP)

2026-2031



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1, Kapital Street, Area 11, Garki-Abuja
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NATIONAL AGRICULTURAL MECHANIZATION POLICY (NAMP)

Produced by:
**Federal Ministry of Agriculture
and Food Security**
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NATIONAL AGRICULTURAL MECHANIZATION POLICY IN NIGERIA.

**Federal Ministry of Agriculture and Food Security
1, Kapital Street,
Area 11, Garki-Abuja
2026.**



FOREWORD

It is with immense pleasure and a profound sense of national purpose that I introduce the National Agricultural Mechanization Policy (NAMP) 2026. This policy represents a decisive and strategic commitment by the Administration of His Excellency, President Bola Ahmed Tinubu, GCFR, to fundamentally transform Nigeria's agricultural sector. Our vision is clear: to move our nation from a landscape of subsistence toil to a powerhouse of modern, efficient, and sustainable agricultural production.

The critical role of agriculture in driving food security, creating jobs, and generating wealth cannot be overstated. However, to fully harness this potential, we must deliberately bridge the significant mechanization gap that has long constrained our productivity and competitiveness. NAMP 2026 is our definitive blueprint to achieve this. It is more than a document; it is a call to action for a concerted, nationwide effort to empower our farmers with appropriate, affordable, and sustainable technologies.

This policy is the culmination of an inclusive and consultative process. We have harmonized insights from farmers' associations, the private sector, academia, research institutions, and our development partners. The validation workshops enriched this document, ensuring it is pragmatic, actionable, and tailored to our unique Nigerian context. The policy addresses the entire value chain—from land development and technology promotion to financing, skills development, insurance, and the embrace of climate-smart digital solutions.

A cornerstone of NAMP 2026 is its emphasis on creating an enabling environment for private sector investment and innovation. We recognize that government alone cannot drive this transformation. Therefore, we are committed to providing the necessary incentives, supportive regulations, and strategic partnerships to unlock massive private capital and expertise in mechanization services and local manufacturing.



As the lead implementation agency, the Federal Ministry of Agriculture and Food Security, under my leadership, is fully dedicated to the execution of this policy. The establishment of a high-level National Agricultural Mechanization Policy Implementation Committee (NAM-PIC) will ensure focused coordination, robust monitoring, and accountability. We have set a clear five-year timeline with measurable targets and a framework for review, because we are serious about delivering tangible results.

I therefore call upon all stakeholders—State and Local Governments, our financial institutions, equipment manufacturers, service providers, research bodies, extension agents, and the resilient Nigerian farmer—to embrace this policy and actively participate in its implementation. Our collective success will be measured in increased food production, improved rural incomes, and a more secure and prosperous Nigeria.

Let us work together to turn the pages of this policy into a new chapter of agricultural prosperity for our great nation.

Senator Abubakar Kyari, CON

Honorable Minister of Agriculture and Food Security,

Federal Republic of Nigeria.

Abuja, Nigeria.



PREFACE

It is with great pride and a deep sense of responsibility that I present the National Agricultural Mechanization Policy (NAMP) 2026. This policy document emerges at a pivotal moment in our nation's journey towards achieving sustainable food security, economic diversification, and inclusive growth. Agriculture remains the bedrock of our economy and the primary livelihood for millions of our citizens. To unlock its full potential, a deliberate and strategic shift from subsistence to a modern, technology-driven sector is not just desirable but imperative.

NAMP 2026 is the product of extensive collaboration, rigorous analysis, and broad stakeholder consensus. The Federal Ministry of Agriculture and Food Security (FMAFS), in partnership with development partners, the private sector, academia, and our dedicated research institutions, has crafted this comprehensive road-map. We have integrated valuable insights from validation workshops across the country, ensuring the policy is grounded in practicality and reflects the diverse needs of the Nigerian agricultural landscape.

This policy is built on a foundation of sustainability, Inclusivity, and innovation. It charts a clear course for the next five years, focusing on critical areas such as sustainable land development, promotion of appropriate technologies, private sector investment, robust financing mechanisms, and the vital development of human capital. Crucially, it embraces the opportunities presented by Climate-Smart and Digital Agriculture, ensuring our mechanization drive is resilient and future-proof.

A key strength of NAMP 2026 lies in its clarity of implementation. It designates clear roles and responsibilities for all actors, establishes a definitive timeline, and proposes a strong monitoring and evaluation framework to ensure accountability and measurable progress. The establishment of the National Agricultural Mechanization Policy Implementation Committee (NAM-PIC) will provide the necessary high-level stewardship.



The successful implementation of this policy requires the unwavering commitment of all stakeholders—Federal, State, and Local Governments, our development partners, the financial sector, manufacturers, service providers, and, most importantly, our farmers. Let us all embrace the vision encapsulated in these pages.

I am confident that with collective action and dedication, NAMP 2026 will catalyse a true agricultural revolution in Nigeria, leading to increased productivity, enhanced food security, wealth creation, food production and value addition and improved livelihoods for all.

Senator Dr. Aliyu Sabi Abdullahi, CON

Honorable Minister of State for Agriculture and Food Security,

Federal Republic of Nigeria.

Abuja, Nigeria.



ACKNOWLEDGEMENT

The formulation of the National Agricultural Mechanization Policy (NAMP) 2026 is the product of an extensive collaboration, expert input, and a shared national commitment to transforming Nigeria's agricultural sector. The Federal Ministry of Agriculture and Food Security (FMAFS) wishes to express its sincere appreciation to all individuals and institutions whose dedication and expertise have shaped this vital policy document.

Special gratitude is extended to the National Centre for Agricultural Mechanization (NCAM) for providing the technical backbone and research insights fundamental to the policy's strategic direction. We deeply appreciate TracTrac Mechanization Services Limited for her sponsorship, strategic coordination and unwavering commitment to the mechanization policy direction. In particular, we greatly commend the huge efforts of the Food and Agricultural Organization (FAO) and other international agencies, whose global perspectives and support have enriched the policy's framework.

We recognize with thanks the pivotal role played by state and local governments, the private sector, farmers' associations, and civil society organizations whose ground level experiences and feedback during stakeholder consultations and validation workshops were integral in ensuring the policy is both pragmatic and inclusive.

The policy also benefited immensely from the contributions of various federal ministries, departments, and agencies (MDAs), particularly the Federal Department of Agricultural Mechanization, the National Agricultural Research Institutes (NARIs), the National Centre for Agricultural Mechanization (NCAM), the Standards Organization of Nigeria (SON), the Central Bank of Nigeria (CBN), and the Nigerian Agricultural Insurance Corporation (NAIC).

We honour the great efforts of the technical committees, resource persons, and validation workshop participants who diligently reviewed drafts, offered



critical recommendations, and ensured the document aligns with national aspirations and global best practices. We recognize the support of TracTrac MSL in ensuring this comes into fruition!

Finally, we acknowledge the unwavering support and leadership of the Honourable Minister of Agriculture and Food Security and the Ministry's Permanent Secretary, whose vision and commitment have been instrumental in steering this policy to fruition.

This collective effort underscores a national consensus on the urgent need for agricultural modernization. As we move into the implementation phase, we count on the continued partnership and dedication of all stakeholders to bring the vision of a mechanized, productive, and sustainable agricultural sector to life for the benefit of all Nigerians.

Dr. Marcus Olaniyi Ogunbiyi, FNSE, FNIAE, R.Eng
Permanent Secretary,

Federal Ministry of Agriculture and Food Security.
Abuja, Nigeria.

5th June, 2026.



ABBREVIATIONS/ACRONYMS

AFDB	African Development Bank
ADP	Agricultural Development Programme
AI	Artificial Intelligence
AMEFAN	Agricultural Machinery and Equipment Fabricators Association of Nigeria
AMMOTRAC	Agricultural Mechanics and Machinery Operators Training Center
ARCN	Agricultural Research Council of Nigeria
CBN	Central Bank of Nigeria
CIF	Cost Insurance Freight
COREN	Council for the Regulation of Engineering in Nigeria
CSA	Climate – Smart Agriculture
DAT	Draught Animal Technology
DFID	Department for International Development
DPS	Development Partners
FAO	Food and Agricultural Organization of the United Nation
FDAM	Federal Department of Agricultural Mechanization
FMAFS	Federal Ministry of Agriculture and Food Security
GDP	Gross Domestic Product
GIS	Geographic Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
IoT	Internet of Things
JICA	Japanese International Cooperation Agency
MAN	Manufacturer Association of Nigeria
M&E	Monitoring and Evaluation
NAERLS	National Agricultural Extension and Research Liaison Services
NAIC	National Agricultural Insurance Corporation
NALDA	National Agricultural Land Development Agency
NAMDC	Nigeria Agricultural Mechanization Development Council
NAMP	National Agricultural Mechanization Policy
NAM-PIC	National Agricultural Mechanization Policy Implementation Committee
NARI	National Agricultural Research Institute
NBTE	National Board for Technical Education



NCAM	National Centre for Agricultural Mechanization
NCS	Nigeria Custom Service
NDCS	National Determined Contributions
NDP	National Development Plan
NIAE	Nigerian Institution of Agricultural Engineers
NIRSAL	Nigeria Incentive-Based Risk Management System for Agricultural Lending
NIMET	Nigerian Meteorological Agency (NiMet)
NSE	Nigerian Society of Engineers
NASRDA	National Space Research and Development Agency
NUC	National University Commission
PPP	Public Private Partnership
R&D	Research and Development
SON	Standard Organization of Nigeria
TRACTRAC	TracTrac Mechanization Service Limited
TVET	Technical and Vocational Education and Training
ToC	Theory of Change
USAID	United States Agency for International Development



TABLE OF CONTENTS

Foreword.....	ii
Preface.....	iv
Acknowledgement	vi
Abbreviations/Acronyms.....	viii
Table of Contents.....	x
List of Figures.....	xiii
Executive Summary.....	1
Chapter One: Introduction.....	3
1.1. Background.....	3
Chapter Two: Status and Situational Analysis of Mechanization in Nigeria	
2.1 Status and current level of Agricultural Mechanization in Nigeria.....	5
2.1.1 Current Level and Adoption.....	5
2.1.2 Key Challenges and Constraints.....	6
2.2 Policy and Programmes Context.....	7
2.2.1 National Development Policy Context.....	8
2.2.2 Existing Government Programme and Institutional Context.....	9
2.2.3 International and Continental Context.....	10
2.2.4 Enabling Environment and Legislative Context.....	11
2.3 Guiding Principles of the Policy.....	11
Chapter Three: Vision, Goal, Objectives, and Targets of The Policy	
3.1 Vision.....	14
3.2 Mission.....	14
3.3 Goal.....	14
3.4 Strategic Objectives.....	14
3.5 Theory of Change of the Policy.....	15
3.6 The Causal Logic Pathway (The “If-Then” Chain)	17
3.7 Key Quantifiable Targets.....	19
Chapter Four: Statements, Goals, Strategies and Recommended Actions For Achieving Policy Objectives	
4.1 Lead Agency for Implementation.....	20
4.1.2 Policy Timeline.....	20
4.2 Policy Framework	20



4.2.1 Sustainable Agricultural Land Development.....	20
4.2.2 Promotion and Application of Sustainable Mechanization Technologies.....	21
4.2.3 Legal and Institutional Framework.....	22
4.2.4 Education, Training, and Skills Development.....	23
4.2.5 Farmland Ownership, Management, and Clustering.....	24
4.2.6 Private Sector Engagement and Financing.....	25
4.2.7 Increased Ownership of Machinery and Equipment.....	26
4.2.8 Financing of Agricultural Mechanization Technologies.....	27
4.2.9 Researchers and Indigenous Fabricators.....	28
4.2.10 Quality Assurance and Standards.....	29
4.2.11 Establishment of Agricultural Engineering and Mechanization Dept. Across States.....	29
4.2.12 Climate-Smart and Digital Agriculture.....	30
4.2.13 Access to Agricultural Mechanization Technologies.....	31
4.2.14 Extension Services and Access.....	32
4.2.15 Insurance for Agricultural Mechanization.....	33
4.2.16 Create access to mechanization for persons with disability (PWD).....	34
4.2.17 Women and youth in Agricultural Mechanization.....	35

Chapter Five: Institutional Arrangements and Legal Framework for Policy Implementation And Coordination

5.1 Overview.....	36
5.2 Leadership, Structures, and Institutions.....	37
5.3 Key Implementation Bodies and Their Roles.....	40
5.4 Institutional Arrangements.....	42
5.4.1 Nigerian Agricultural Mechanization Development Council (NAMDC).....	42
5.4.2 Membership of the NAMDC.....	42
5.4.3 Federal Ministry of Agriculture and Food Security (FMAFS)	43
5.4.4 Central Bank of Nigeria (CBN).....	43
5.4.5 National Centre for Agricultural Mechanization NCAM / Standards Organization of Nigeria (SON)	43
5.4.6 Nigeria Customs Service (NCS).....	43



5.5	Legal Framework.....	43
5.6	Agricultural Mechanization Development Fund.....	44
5.7	Digital Governance and Data Systems.....	44
5.8	Climate-Smart Mechanization Governance.....	45
5.9	Public-Private Partnership (PPP) Framework.....	45
5.10	Gender, Youth and Social Inclusion Framework.....	46
5.11	Stakeholder Engagement and Communication Strategy.....	46
5.12	Risk Management Framework.....	46
5.13	Legal Framework.....	46
5.14	Implementation Timeline and Sequencing.....	47
5.15	Governance and Implementation Structure.....	47

Chapter Six: Funding Structure and Partner Coordination

6.1	Financing.....	49
6.2	Developmental Partners, Private Sector, Networks and Professional Bodies	51
6.2.1	Professional Bodies.....	52
6.2.2	Private Sector.....	53
6.2.3	Developmental Partners (DPs).....	54

Chapter Seven: Monitoring, Evaluation, and Implementation Strategy

7.1	Introduction	56
7.2	Goal and Objectives of M&E.....	57
7.3	Implementation Structure.....	58
7.3.1	National Agricultural Mechanization Policy Implementation Committee (NAM-PIC).....	58
7.3.2	State and Local government implementation Structure.....	58
7.4	Monitoring and Evaluation (M&E).....	60
7.5	Reporting and Accountability Framework	61
7.6	Digital Innovation and Smart Monitoring Systems.....	61
7.7	Learning, Knowledge Management, and Policy Adaptation.....	62
7.8	Risk Management and Adaptive Implementation.....	63



LIST OF FIGURES

Figure 1: Percentage of Nigerian farmers using tractors and other mechanized tools	6
Figure 2: Nigeria SDG Dashboard and Trends	10
Figure 3: Conceptual Framework of the National Agricultural Mechanization Policy	18
Figure 4: Governance and Implementation Structure of NAMP	48



EXECUTIVE SUMMARY

The National Agricultural Mechanization Policy (NAMP) 2026 represents a strategic national framework to reposition Nigeria's agricultural sector as a modern, mechanized, industrially integrated, and globally competitive system. Despite Nigeria's vast agricultural potential, the sector continues to face:

- Low mechanization levels
- Poor productivity and yield gaps
- High post-harvest losses
- Weak linkages with industry and export markets
- Heavy reliance on manual labour.

This policy is Private Sector–Driven, Public Sector–Enabled and a Public–Private Partnership (PPP) Model, ensuring efficiency, sustainability, and scalability. It aligns with international and regional frameworks, including:

- African Continental Free Trade Area.
- Economic Community of West African States, ECOWAS Agricultural Development Strategy.
- World Trade Organization, (WTO) Trade Negotiations.

The policy also integrates agriculture with:

- Industry (steel, solid minerals, manufacturing)
- Energy transition (CNG, renewable energy, LPG)
- Trade and export systems
- Science, technology, and innovation

POLICY CONTEXT AND RATIONALE

Nigeria's agricultural sector contributes significantly to GDP and employment but remains constrained by structural inefficiencies.

Key Challenges include:

- ❖ Mechanization rate far below global standards.
- ❖ Fragmented land holdings.
- ❖ Limited access to affordable machinery.
- ❖ Weak financing systems.



- ❖ Poor rural infrastructure.
- ❖ Climate change impacts.

Rationale for the Policy.

Mechanization is critical for scaling agricultural value chain operations and ensuring food security through;

- ❖ Productivity enhancement
- ❖ Increased value addition and agro-industrial development.
- ❖ Improved competitiveness in regional and global markets.
- ❖ Youth employment and entrepreneurship.



CHAPTER ONE: INTRODUCTION.

1.1 Background.

Agriculture remains the cornerstone of Nigeria's economy, employing a significant portion of the labour force and contributing substantially to the nation's Gross Domestic Product (GDP). Despite its critical importance, the sector has long been characterized by subsistence farming, low productivity, high post-harvest losses, and heavy reliance on manual labour and rudimentary tools. This has persistently undermined the country's quest for food and nutrition security, sustainable economic growth, rural development, employment generation and poverty reduction.

The need for mechanization; the application of mechanical technology and appropriate machinery to agricultural production, processing, storage and packaging has been recognized for decades as a critical driver for transforming the sector. Historical efforts at promoting mechanization, including the establishment of the National Centre for Agricultural Mechanization (NCAM) and various tractor acquisition schemes, have been hampered by systemic challenges. These include fragmented policies, inadequate funding, poor maintenance culture, a weak manufacturing base for machinery, limited access to finance for farmers and service providers, and land tenure issues that discourage large-scale investment.

Nigeria's current level of mechanization, estimated at a low tractor-to-hectare ratio compared to global standards is insufficient to meet the demands of a growing population and to compete effectively in regional and international markets. Furthermore, the impacts of climate change, demographic shifts, and evolving consumer demands necessitate a more resilient, efficient, and technology-driven agricultural system.

The development of the National Agricultural Mechanization Policy (NAMP) 2026 is, therefore, a direct response to these persistent challenges and missed opportunities. It is born out of a renewed national consensus on the urgent



need to systematically address the bottlenecks that have hindered agricultural modernization. This consensus was forged through extensive consultations and validation workshops involving all key stakeholders: federal and state ministries, local governments, agricultural research institutes, financial institutions, private sector investors, machinery manufacturers and fabricators, farmers' associations, academia, and development partners.

NAMP 2026 builds upon lessons learned from previous initiatives and aligns with broader national frameworks such as the National Agricultural Technology and Innovation Policy (NATIP) and the National Development Plan (NDP), as well as continental aspirations like the African Union's Agenda 2063. The policy represents a holistic, integrated, and sustainable pathway to mechanization, deliberately designed to be private-sector-led, climate-smart, and inclusive.

It moves beyond a singular focus on tractorization to embrace a full spectrum of activities—from land development and planting to harvesting, processing, food production and value addition. Crucially, it emphasizes the development of local capacity for manufacturing, repair, and maintenance, aiming to create jobs, conserve foreign exchange, and ensure the appropriateness and sustainability of technologies.

This policy document, therefore, stands as the definitive strategic framework to guide all stakeholders in a coordinated, time-bound, and result-oriented mission to mechanize Nigeria's agriculture. Its successful implementation is pivotal to unlocking the sector's potential, ensuring food security for all Nigerians, creating wealth, and positioning the country as a leading agricultural power in Africa and the world.



CHAPTER TWO: STATUS AND SITUATIONAL ANALYSIS OF MECHANIZATION IN NIGERIA

2.1 Status and Current Level of Agricultural Mechanization in Nigeria

2.1.1 Current Level and Adoption

Low Overall Penetration: Nigeria's mechanization density is estimated at less than 0.5 horsepower per hectare (hp/ha), which is far below the Food and Agriculture Organization (FAO)'s recommendation of 1.5 hp/ha for sustainable farming and lags behind peers like Kenya (approx. 0.7 hp/ha) and India (over 2.0 hp/ha). Over 70% of farming activities are still performed manually with tools like hoes, cutlasses, and axes.

Prevalence of Draught Animal Technology (DAT): In the northern Savannah regions, DAT (using bulls or donkeys) for ploughing and transportation is common, representing an intermediate stage of mechanization.

Tractor as the Centerpiece: Mechanization is often equated with tractorization. Nigeria's tractor density is critically low, with estimates ranging from 5 to 25 tractors per 100 square kilometers (against a target of 135 tractors/100km²). The national tractor population is estimated at around 75,000 units, serving only a fraction of the need.

Most are owned by private individuals, Mechanization Service Providers, or cooperatives.

Value-Chain Specific Mechanization: Agricultural Mechanization is more advanced in value chain operations for specific commodities. Examples include:

- i. Rice: Use of rotary tillers, tractors for land preparation, and threshers for primary processing.
- ii. Cassava: Use of mechanical graters and pressers for Garri production.
- iii. Processing: Relative proliferation of small-scale mills, grinders, and processors for grains, and dairy.

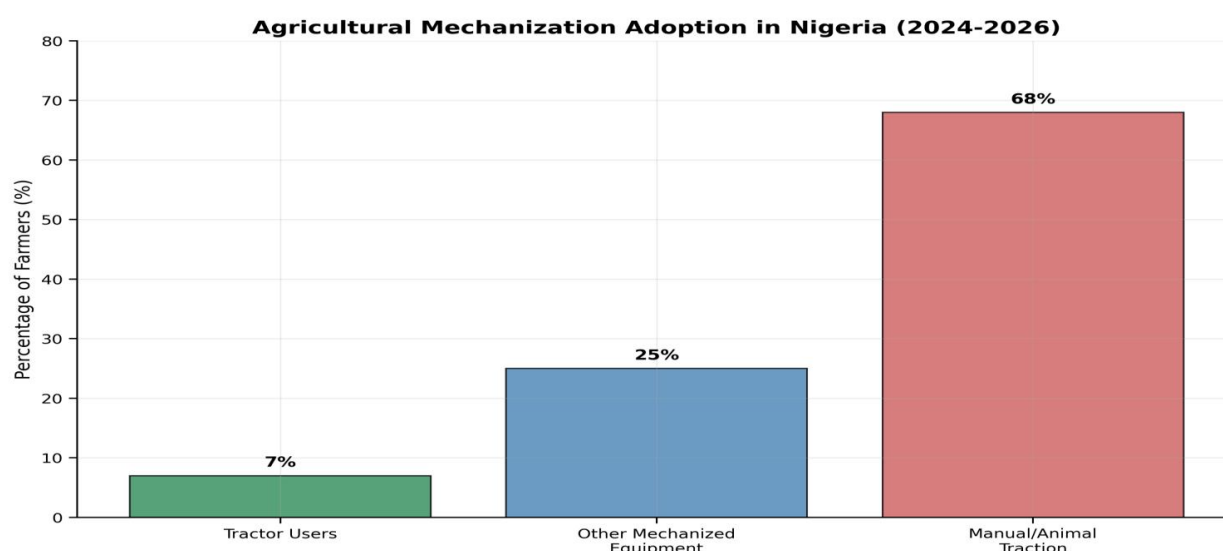


Figure 1: Percentage of Nigerian Farmers using Tractors and Other Mechanized Tools.

2.1.2 Key Challenges and Constraints.

Some challenges and constraints create a cycle of low productivity, high post-harvest losses, and limited commercialization, keeping Nigerian agriculture largely subsistence-based. For example:

- i. **High Cost and Financing Barriers:** The initial capital for purchasing machinery

(tractors, ploughers, harrowers, planters, sprayers, drones, harvesters) is prohibitively high for most smallholder farmers. Limited access to affordable credit, insurance, and hire-purchase schemes constrains adoption.

- ii. **Poor Infrastructure:** Inadequate rural roads hinder the transport of machinery and harvested produce. Unreliable electricity and limited agro-processing facilities reduce the value-added benefits of mechanization.
- iii. **Technical and Skill Gaps:** There is a shortage of skilled operators, mechanics, and technicians for maintenance and repair. High downtime and a weak spare parts supply chain make machinery ownership risky.
- iv. **Land Tenure Fragmentation:** Small, fragmented, and often communally-owned farm plots are not conducive to the efficient use of large-scale machinery. Land tenure insecurity discourages long-term investments.



- v. **Sociocultural Factors:** Small and fragmented farm holdings, Customary land tenure and inheritance systems, low literacy and technical awareness among farmers, ageing farming population and conservatism, negative youth perception of agriculture, gender inequality in access to land and machinery, weak cooperative culture among farmers, poor agricultural extension services, limited exposure to mechanized farming techniques, poverty and inability to afford machinery, community attachment to subsistence farming, weak social acceptance of modern agricultural technologies and inadequate rural infrastructure and support systems, as well as poor maintenance culture for agricultural equipment discourages long term investments.
- i. **Weak Policy and Institutional Support:** Inconsistent government policies, inadequate extension services to promote mechanization, and poor coordination among stakeholders (government, private sector, research) hamper sustained progress.
- ii. Inexperienced and dishonest machinery mechanic and operators
- iii. Lack of a well-equipped and up-to-date workshop
- iv. Intensive production methods
- v. Poor land development for agriculture

2.2 Policy and Programmes Context

The Policy and Programmes Context of NAMP 2026 is that of an integrating, operationalizing, and gap-filling framework. It sits at the intersection of high-level national plans and ground-level implementation. By providing a unified vision and clear coordination mechanisms, it aims to bring coherence to disparate mechanization-related activities, leverage existing programmes, and create the specific conditions necessary to translate Nigeria's broader agricultural ambitions into a tangible, mechanized reality. It is the missing link designed to synchronize all efforts towards a mechanized agricultural sector. The National Agricultural Mechanization Policy (NAMP) 2026 does not exist in isolation. It is strategically designed to align with and operationalize Nigeria's broader national development goals and existing agricultural programmes,



while also contributing to continental and global commitments. Some of these policies/programmes which are multi-layered with NAMP have been implemented by the government over the years, to increase the utilization and adaption of agricultural mechanization, improve agricultural productivity, strengthen food security, and modernize the agricultural sector. However, despite these efforts, agricultural mechanization adoption in Nigeria has remained relatively low due to fragmented implementation, weak coordination, inadequate financing, infrastructural deficits, poor maintenance systems, limited technical capacity, and weak private sector participation.

2.2.1 National Development Policy Context:

NAMP 2026 serves as a coordinating framework that consolidates and strengthens existing initiatives by providing strategic direction for mechanization development across the agricultural value chain. The policy aligns closely with the:

i. **Nigeria's National Development Plan (NDP) 2021–2025:** NAMP 2026 is a direct instrument for achieving the NDP's agricultural sector objectives. The NDP prioritizes achieving food security, promoting agro-processing, and creating jobs through agricultural transformation. Agricultural mechanization is a critical enabler for all these outcomes, and NAMP provides the specific framework to implement the mechanization component of the national plan.

ii. **National Agricultural Technology and Innovation Policy (NATIP) 2021-2025:** NAMP 2026 serves as the specialized sectoral policy under the broader umbrella of NATIP. While NATIP outlines the overall vision for transforming agriculture through technology across all sub-sectors, NAMP provides the detailed road-map, institutional arrangements, and specific interventions required to achieve technological transformation specifically through mechanization.



iii. **National Livestock Transformation Plan (NLTP) and Other Sub-Sectoral Plans:** Agricultural mechanization is essential for modern ranching, fodder production, and dairy processing under the NLTP. NAMP's provisions for appropriate technology and service centers will support such specialized sub-sectoral initiatives.

2.2.2 Existing Government Programmes and Institutional Context.

NAMP 2026 is designed to integrate with, strengthen, and bring coherence to various ongoing governmental efforts, avoiding duplication and creating synergies, such as

- i. **Anchor Borrowers' Programme (CBN):** NAMP will facilitate access to the machinery required by farmers under this programme, enhancing their productivity and loan repayment capacity. The policy's proposed concessionary financing mechanisms complement the CBN's existing agricultural intervention funds.
- ii. **National Agricultural Land Development Authority (NALDA):** NAMP's Section 1 (Sustainable Land Development) directly synergies with NALDA's mandate. The policy calls for collaboration with NALDA to develop vast hectares of arable land, making it ready for mechanized farming.
- iii. **National Centre for Agricultural Mechanization (NCAM):** NAMP 2026 elevates and empowers NCAM, designating it as the national coordinator for research, testing, certification, and fabricator training. The policy provides the mandate and framework to scale up NCAM's activities.
- iv. **Presidential Fertilizer Initiative and Other Input Programmes:** Agricultural mechanization is the vehicle for the efficient and large-scale application of improved inputs like fertilizers and seeds. NAMP ensures that gains from input programmes are maximized through timely and efficient mechanized operations.
- v. **State-Level Agricultural Development Projects (ADPs):** NAMP mandates collaboration with ADPs for extension services, demonstrations, and

grassroots implementation, leveraging their existing farmer networks and field infrastructure.

2.2.3 International and Continental Context.

- i. **African Union's Agenda 2063 and the Malabo Declaration:** NAMP 2026 aligns with the AU's commitment to tripling agricultural productivity and ending hunger by 2025. It is Nigeria's strategic tool to meet its Malabo Declaration commitments on enhancing investment in agriculture, particularly in technology and mechanization.
- ii. **Sustainable Development Goals (SDGs):** The policy directly contributes to SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 8 (Decent Work), and SDG 9 (Industry, Innovation and Infrastructure) by boosting productivity, creating jobs in manufacturing and services, and fostering innovation.
- iii. **Climate Change Commitments (Paris Agreement):** NAMP's 2026 strong focus on Climate-Smart Agriculture (Section 12) ensures that mechanization promotes sustainable resource use, resilience, and adaptation, aligning with Nigeria's Nationally Determined Contributions (NDCs).



Figure 2: Nigeria SDG Dashboard and Trends.



2.2.4 Enabling Environment and Legislative Context.

NAMP 2026 acknowledges and seeks to address gaps in the current enabling environment:

- i. **Land Use Act:** The policy's strategies on land titling, registration, and clustering aims to work within and mitigate the constraints posed by the existing land tenure system to facilitate larger, more contiguous farm sizes suitable for machinery.
- ii. **Need for New Legislation:** The policy explicitly calls for new enabling laws to empower NCAM's testing/certification mandate and to institutionalize mechanization departments, indicating it will shape future legislative agendas.

2.3 Guiding Principles of the Policy

The Guiding Principles of the National Agricultural Mechanization Policy (NAMP) 2026 serve as the foundational philosophy and core values that shape its strategies, actions, and implementation. These principles ensure the policy is coherent, effective, and aligned with national and global best practices. They are:

- i. **Sustainability:** This is the overarching principle, encompassing environmental, economic, and social dimensions. The policy mandates the promotion of technologies and practices that:
 - **Protect the environment:** Minimize soil degradation, promote efficient water use, and reduce greenhouse gas emissions.
 - **Are economically viable:** Ensure technologies are affordable, profitable for farmers, and financially sustainable for service providers and manufacturers.
 - **Are socially inclusive:** Benefit all genders, youth and persons with disabilities, and smallholder farmers, reducing drudgery and creating decent employment.
- ii. **Inclusivity and Equity:** NAMP 2026 emphasizes that the benefits of mechanization must be accessible to all categories of farmers, regardless of scale, gender, or location. It prioritizes:



- Active participation of women and youth.
 - Support for smallholder farmers through cooperative models and tailored service hire schemes.
 - Balanced development across all six geopolitical zones.
- iii. **Private Sector-Led and Public Sector-Enabled Growth:** The policy clearly establishes that the private sector is the primary engine for mechanization investment, manufacturing, and service provision. The role of the government (at all levels) is to:
- Create an enabling environment through incentives, regulations, and infrastructure.
 - Catalyze and de-risk private investment, not to dominate the market.
 - Facilitate Public-Private Partnerships (PPPs) for sustainable service delivery.
- iv. **Appropriateness and Adaptability:** Agricultural Mechanization technologies must be suited to local conditions. This principle guides:
- The promotion of context-specific technologies—from motorized machines to Draught Animal Technology (DAT)—based on crop type, farm size, and ecology.
 - Adaptation of imported technologies to local conditions.
 - Strengthening local capacity for manufacturing, repair, and innovation to ensure relevance and sustainability.
- v. **Systemic and Integrated Approach:** NAMP 2026 recognizes that Agricultural Mechanization cannot succeed in isolation. It must be integrated with:
- Land reform and development (preparation, tenure security, clustering).
 - Access to finance, inputs, and markets.
 - Research and Development, extension services, and skills training.
 - Climate-smart and digital agriculture initiatives.



- vi. **Demand-Driven and Farmer-Centric Focus:** Interventions and technologies should respond to the actual needs and economic realities of farmers. This is ensured through:
 - Stakeholder consultations in policy design and implementation.
 - Promotion of viable business models (like hiring centers) that make mechanization services affordable.
 - Focus on entire value chains (production to processing) based on market demand.
- vii. **Evidence-Based Decision Making and Quality Assurance:** This principle mandates reliance on data, research, and standards to ensure efficiency, safety, and reliability.
 - Strengthening testing, certification, and standardization of all machinery (NCAM's role).
 - Use of data, AI, and GIS for informed planning and monitoring.
 - Routine review of academic curricula and training programmes based on industry needs.
- viii. **Climate Resilience and Environmental Stewardship:** All agricultural mechanization advancements must contribute to a resilient agricultural system. This involves:
 - Promoting Climate-Smart Agricultural (CSA) technologies that optimize resource use.
 - Integrating renewable energy sources where feasible.
 - Supporting practices that enhance soil health and conserve water.

These guiding principles collectively ensure that NAMP 2026 drives a transformative, responsible, and inclusive agricultural mechanization process in Nigeria, moving beyond mere tractorization to a holistic system upgrade for sustainable development.



CHAPTER THREE: VISION, MISSION AND GOAL, OBJECTIVES, AND TARGET POLICY

3.1 Vision

Sustainable, efficient, climate-smart mechanization that drives food security, rural transformation, and reduces drudgery

3.2 Mission

Expand access for small/marginal farmers, promote modern technologies, support private and public service models, and build capacity through training and demonstration.

3.3 Goal

To transform and step-up Mechanization level from 0.27hp per hectare to enviable level of 1.5hp/ha over the 5 years policy cycle

3.4. Strategic Objectives.

To achieve the overarching goal of significantly increasing the level and quality of mechanization across the entire agricultural value chain, the objectives of NAMP are as follow:

- i. **Sustainable Land Development:** Ensure the availability and suitability of agricultural land for mechanization.
- ii. **Technology Promotion and Application:** Promote the adoption of appropriate and sustainable mechanization technologies (both local and imported).
- iii. **Robust Legal/Institutional Framework:** Establish strong laws and institutions to govern and promote mechanization.
- iv. **Human Capital Development:** Facilitate education, training, and skills development for all cadres of manpower in the sector.
- v. **Efficient Land Management:** Facilitate farmland ownership, management, and clustering to enable economies of scale.
- vi. **Private Sector Engagement and Financing:** Promote and facilitate private sector investment in mechanization services and equipment.



- vii. **Increased Machinery Ownership:** Increase the ownership of agricultural machinery and equipment among farmers and service providers.
- viii. **Sustainable Financing:** Encourage sustainable financing for local agricultural mechanization technology development.
- ix. **Upgrading Researchers and Fabricators:** Upgrade the skills of researchers and indigenous fabricators.
- x. **Quality Assurance and Standards:** Ensure the quality, safety, and reliability of all agricultural machinery through testing and certification.
- xi. **Institutional Establishment:** Establish dedicated Agricultural Engineering and Mechanization departments at all government levels.
- xii. **Climate-Smart and Digital Adaptation:** Adapt mechanization technologies to optimize Climate-Smart Agriculture (CSA) and integrate digital tools.
- xiii. **Access to Technologies:** Create access to appropriate and affordable mechanization technologies for all farmers.
- xiv. **Effective Extension Services:** Promote sustainable and effective extension services for mechanization technologies.
- xv. **Risk Mitigation and Insurance:** Cover all risks associated with the adoption of mechanization technologies through insurance and incentives.

3.5 Theory of Change of the Policy

The Theory of Change (ToC) for the National Agricultural Mechanization Policy (NAMP) 2026 sets out a clear causal pathway that describes how strategic inputs, activities, and interventions will lead to tangible outputs, progressive outcomes, and the ultimate long-term impact envisioned for Nigeria's agricultural sector. The ToC explains that, through the careful implementation of targeted interventions, the policy expects to transform Nigerian agriculture into a food-secure, economically vibrant, and sustainable sector—one that is modernized, productive, competitive, and resilient to climate change, delivering widespread prosperity and creating decent employment opportunities. To achieve this, the policy aims for several long-term outcomes,



including significantly increased agricultural productivity and yield, dramatic reductions in post-harvest losses, enhanced food and nutrition security, millions of new jobs throughout the mechanization value chain, higher incomes and reduced poverty among rural communities, sustainable land and resource management, and the emergence of a robust indigenous machinery industry.

Reaching these outcomes depends on systemic intermediate changes over the next five to ten years, such as the widespread adoption of appropriate mechanization technologies by farmers at all scales, the emergence of a strong private sector in mechanization services and manufacturing, the scaling and clustering of farm operations for efficiency, the development of a highly skilled workforce, the establishment of robust regulatory and quality assurance systems, and the integration of climate-smart and digital technologies. In the shorter term (within one to five years), direct results are expected, including increased availability and affordability of suitable machinery, improved access to finance for farmers and service providers, better land readiness and tenure security, strengthened institutional capacity, development and enforcement of machinery standards, greater private sector investment, and improved technical knowledge and skills across stakeholders.

These outcomes will be driven by a range of concrete outputs, such as land development, upgraded testing and certification facilities, revised educational curricula, harmonized legal frameworks, establishment of a dedicated Mechanization Development Fund, baseline studies, technology demonstrations, and new insurance and risk-mitigation products. The policy's key activities span land development and clustering, technology identification and promotion, bolstering R&D and local manufacturing, facilitating finance and private investment, building human capacity, establishing quality assurance systems, integrating climate-smart and digital tools, and strengthening both extension and insurance services. Underpinning all these efforts are critical foundational inputs and enablers, including strong political will and leadership, adequate financial resources from diverse sources, robust institutional frameworks, collaborative multi-stakeholder



governance, supportive legal and regulatory environments, and a thriving ecosystem for data, research, and innovation.

3.6 The Causal Logic Pathway (The "If-Then" Chain).

The Theory of Change operates on the following core logic:

IF necessary, input was provided, the necessary inputs and enabling environment (funding, leadership, laws),

AND implementation of the key activities (land development, technology promotion, skills training, quality assurance, etc.) is effectively carried out,

THEN the direct outputs (trained personnel, developed land, service centres, etc.) will be produced

IF these outputs are achieved,

Then, in the short term, availability, access, and awareness of mechanization will increase, and institutional capacity will be strengthened.

IF these short-term outcomes are realized,

THEN in the medium term, we will see widespread adoption of technologies, a vibrant private sector, efficient farm clusters, and a skilled workforce.

IF these intermediate outcomes are sustained,

THEN in the long term, agricultural productivity and incomes will rise significantly, jobs will be created, and the sector will become sustainable and competitive—ultimately contributing to national food security, economic growth, and poverty reduction.

In summary, the Theory of Change for NAMP 2026 is a comprehensive logic model that links targeted interventions to a clear cascade of results, underpinned by critical enablers and mindful of existing risks. It provides the road-map for how mechanization is expected to act as the central lever for transforming Nigerian agriculture, in line with the framework designed below.

Figure 3 illustrates how various elements interact to achieve the overall goal of transforming Nigeria's agricultural sector through sustainable agricultural mechanization. The framework is built on a systemic and integrated logic, moving from foundational enablers to core pillars, supported by cross-cutting strategies, and leading to measurable outcomes.

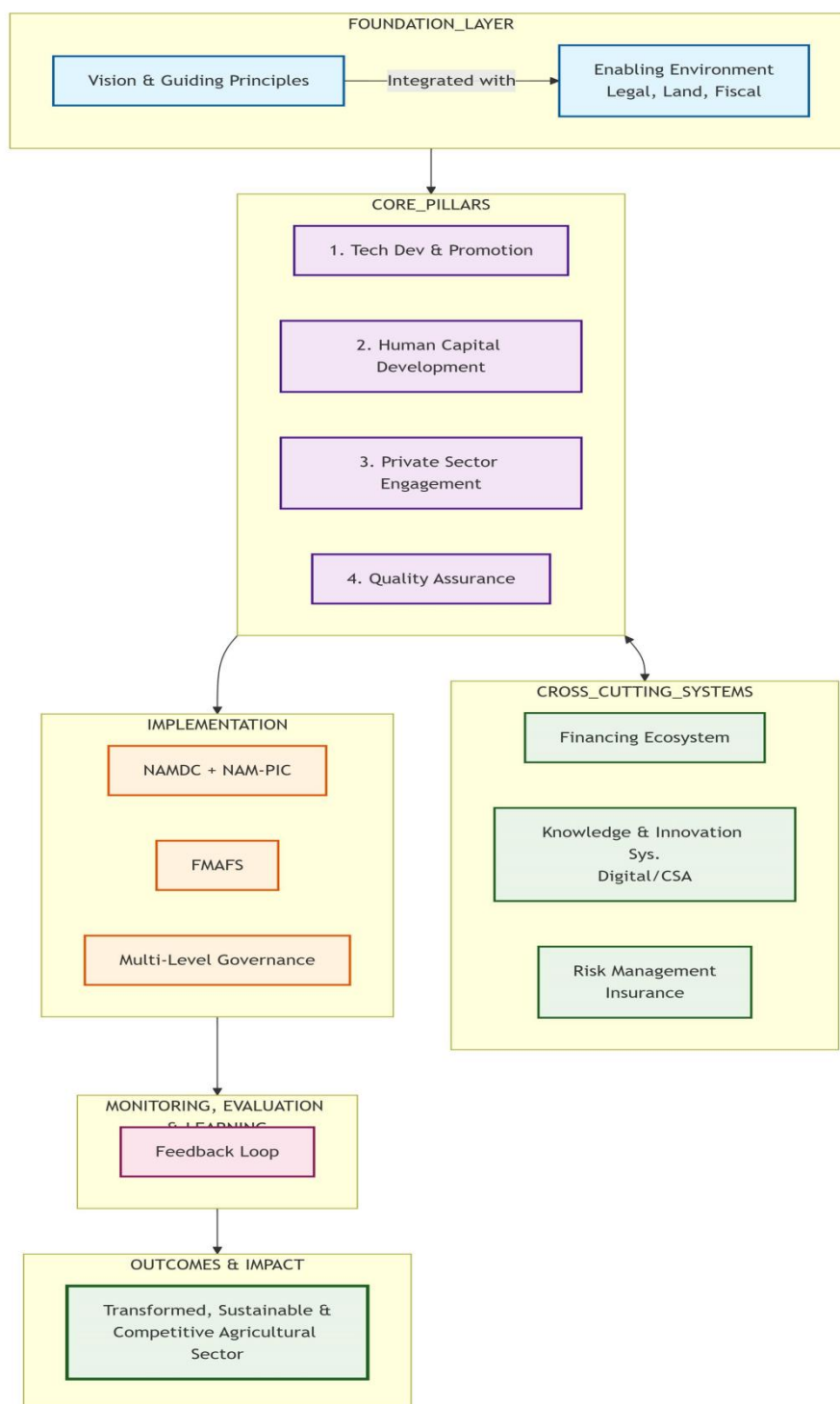


Figure 3: Framework for operationalization of the National Agricultural Mechanization Policy.



3.7 Key Quantifiable Targets

The policy sets several specific, measurable targets to be achieved within the 5-year implementation timeline. These targets also align with the Sustainable Development Goals (SDGs), Africa Union's Agenda 2063, and Nigeria's Agenda 2050. They include:

- i. Land Development:
 - a. Developing a minimum of 10% of each state's available arable land.
 - b. Developing at least 10,000 hectares of land in each Local Government Area (LGA).
- ii. Technology and Manufacturing:
 - a. Revamping iron ore mining and steel production to support local machinery manufacturing.
 - b. Stimulating private investment for the mass production of standardized technologies.
- iii. Institutional and Human Capacity:
 - a. Upgrading testing facilities at NCAM and other centers.
 - b. Carrying out routine review of academic and training curricula.
 - c. Enacting a law for compulsory internship for agricultural graduates.
 - d. Implementing skill acquisition and staff exchange programs with institutions in developed countries.
- iv. Service Delivery and Access:
 - a. Establish agricultural mechanization hiring/service centers in each state.
 - b. Provision of adequate fund to NCAM for the establishment of service centers across the six geopolitical zones.
 - c. Replicate smart agricultural mechanization initiatives across all six geopolitical zones.
- v. Financial:
 - a. Establish an Agricultural Mechanization Development Fund domiciled with the CBN, derived from a 1% levy on imported agricultural machinery.
- vi. Governance:
 - a. Develop and enact a legal framework for R&D and knowledge transfer.
 - b. Develop a harmonized framework for Agricultural Mechanization departments at all levels.



CHAPTER FOUR: POLICY STATEMENTS, GOALS, STRATEGIES AND RECOMMENDED ACTIONS

Preamble

This chapter outlines the policy goals, strategies and recommended actions necessary to achieve the policy objectives. These strategies and recommended actions, which were developed in collaboration with key stakeholders, aim to transform Nigeria's agricultural sector by promoting the adoption of efficient, appropriate, and sustainable agricultural mechanization technologies. The resolutions from the validation workshop have also been integrated, ensuring clear actor roles, defined timelines, a lead implementation agency, and a dedicated focus on sustainability, monitoring, evaluation, and insurance.

4.1 Lead Agency for Implementation: The Federal Ministry of Agriculture and Food Security (FMAFS) shall be the policy lead and give direction to all other related agencies and stakeholders.

4.1.2 Policy timeline: The implementation plan for this policy is set for a period of **five (5) years (2026 - 2031)**, after which a comprehensive review shall be conducted to assess progress, challenges, and to inform the next policy cycle.

4.2 Policy Framework

4.2.1 Sustainable Agricultural Land Development

Goal: Promote the sustainable development of agricultural land to ensure availability and suitability for mechanization.

Strategy:

- Promote land development of a minimum of 10% of each state's available arable land over the next five years.

Recommended Actions:

- i. Develop a National Agricultural Land Use and Mechanization Master Plan using GIS, remote sensing, and satellite mapping in collaboration with state and local governments.



- ii. Prioritize mechanized land development within agricultural clusters, irrigation corridors, and agro-industrial zones for phased implementation.
- iii. Establish state-level land development programmes targeting at least 10% of available arable land over five years.
- iv. Deploy climate-smart land development practices, including soil conservation, drainage systems, erosion control, and sustainable water management.
- v. Promote Public-Private Partnerships (PPPs) for large-scale land clearing, leveling, irrigation infrastructure, and rural access roads.
- vi. Facilitate access to land development equipment through leasing schemes, mechanization service centers, and subsidized hiring arrangements coordinated by NCAM and NALDA.
- vii. Develop agricultural land banks and digital cadastral systems to improve land accessibility and investment security.

(Actors: FMAFS, NCAM, National Agricultural Land Development Agency (NALDA), State and Local Governments.)

4.2.2. Promotion and Application of Sustainable Mechanization Technologies

Goal: Promotion and application of sustainable agricultural mechanization technologies (both local and imported).

Strategies:

- Identification of appropriate agricultural mechanization technologies (local and imported).
- Encourage and support State and Local Government to promote the use of appropriate agricultural mechanization technologies.
- Stimulate the participation of private investors in mass production/ manufacturing of standardized agricultural mechanization technologies.

Recommended Actions:

- i. Conduct a nationwide baseline assessment to identify appropriate mechanization technologies suitable for Nigeria's agro ecological zones and farm sizes.



- ii. Promote adaptive and smallholder-friendly technologies such as mini-tractors, planters, harvesters, irrigation pumps, and processing equipment.
- iii. Establish mechanization demonstration centers and pilot smart farming sites across the six geopolitical zones.
- iv. Provide tax incentives and import duty waivers for local assembly and manufacturing of mechanization equipment.
- v. Support local fabrication and commercialization of agricultural technologies through NCAM, research institutes, and private innovators.
- vi. Strengthen collaboration among universities, research institutes, and the private sector for technology transfer and innovation.
- vii. Revitalize steel, iron ore, and component manufacturing industries to support local machinery production. (Actors: FMAFS and NCAM; Timeline: 5 years)

4.2.3 Legal and Institutional Framework.

Goal: Establish a robust legal and institutional framework for the promotion of sustainable agricultural mechanization.

Strategies:

- Strengthen Agricultural Mechanization technologies development, testing and certification at the established centers.
- Encourage and strengthen existing agricultural mechanization professional bodies.
- Create an enabling environment for Research and Development (R&D), and knowledge transfer in agencies/centers through a legal framework.

Recommended Actions:

- i. Strengthen Testing Centers: Upgrade facilities for development, testing, and certification of technologies at NCAM and other centers with the digital monitoring systems. (Actors: Federal Government, FMAFS, NCAM and AMMOTRAC; Timeline: 5 years).
- ii. Engage Professional Bodies: Encourage periodic stakeholder consultations involving professional bodies, manufacturers, researchers, and farmer organizations (e.g., AMEFAN, NIAE, COREN, NSE) on



- mechanization issues. (Actors: Federal/State/Local Governments, FMAFS, ARCN; Timeline: 5 years).
- iii. Enabling Legislation: Develop and enact a legal framework to provide an enabling environment for agricultural mechanization regulation, testing, certification, and quality assurance. (Actors: Ministry of Justice, National Assembly, relevant agencies; Timeline: 5 years)
 - iv. Establish a National Agricultural Mechanization Council to coordinate policy implementation across all tiers of government. (Actors: Federal/State/Local Governments, FMAFS, ARCN; Timeline: 5 years).
 - v. Define clear institutional mandates, responsibilities, and performance indicators for all implementing agencies. (Actors: FMAFS and NCAM; Timeline: 5 years).
 - vi. Institutionalize annual mechanization performance reviews and reporting mechanism. (Actors: Federal/State/Local Governments, FMAFS State Gov; Timeline: 5 years)

4.2.4 Education, Training, and Skills Development.

Goal: Facilitate education and training for all cadres of manpower in agricultural mechanization technologies.

Strategies:

- Facilitate training of Engineers, technologist, technicians and craftsmen on agricultural mechanization technologies.
- Encourage Technical and Vocational Education and Training (TVET) institutes to carryout training on agricultural mechanization technologies.
- Institute mandatory internship training for agriculturally based graduates.

Recommended Actions:

- i. Curriculum Review: Review and modernize curricula in universities, polytechnics, TVET institutions, and agricultural colleges to include smart mechanization, precision agriculture, and digital farming systems. (Actors: NUC, NBTE, NIAE and NCAM; Timeline: 5 years).
- ii. Funding for TVET: Allocate dedicated funding for technical and vocational training in machinery operation, maintenance, fabrication,



- and repair. (Actors: FMAFS, ARCN, State/Local Governments; Timeline: 5 years).
- iii. Mandatory Internship: Enact a law to ensure compulsory internship training for agricultural-based graduates. (Actors: FMAFS, National Assembly, COREN; Timeline: 5 years).
 - iv. Staff Exchange: Implement skill acquisition and staff exchange programs with institutions in developed countries. (Actors: FMAFS, ARCN, Ministry of Foreign Affairs, Research Institutes; Timeline: 5 years).
 - v. Upgrade Fabricators' Skills: Strengthen national test codes and standards and train indigenous fabricators. (Actors: FMAFS, NCAM, NIAE and SON; Timeline: 5 years).
 - vi. Establish regional agricultural mechanization training and certification centers across the six geopolitical zones. (Actors: FMAFS, ARCN, ITF and NCAM; Timeline: 5 years).
 - vii. Develop youth-focused mechanization entrepreneurship programmes and startup incubation schemes. (Actors: FMAFS, FMI&T, ITF, NCAM and SMEDAN; Timeline: 5 years).

4.2.5 Farmland Ownership, Management, and Clustering

Goal: Facilitate efficient farmland ownership, management, and clustering to enable economies of scale for mechanization.

Strategies:

- State Government to accelerate land mapping and cadastral projects.
- Identification and delineation of agricultural lands.
- All tiers of government shall develop appropriate regulatory frame work to create enabling environment for agricultural mechanization services.

Recommended Actions:

- i. Land Titling and Registration: Accelerate land mapping, cadastral projects, and registration with the National Collateral Registry to enable farmers to use titles as collateral for credit. (Actors: State/Local Governments, CBN).



- ii. Cooperatives: Incentivize and promote the formation of farmer cooperatives for collective land acquisition and ownership, as well as land pooling and cluster farming systems. (Actors: Departments of Cooperatives at all levels).
- iii. Efficient Land Use: Encourage efficient land use, soil-water conservation, and the production of regional soil maps. (Actors: All tiers of government).
- iv. Enabling Environment: Develop a regulatory framework to create an enabling environment (tax relief, incentives) for the mechanization manufacturing industry.
- v. Establish agricultural land banks and mechanized farming estates in all states.
- vi. Introduce incentives such as subsidized inputs, irrigation support, and machinery access for clustered farming systems.
- vii. Develop enabling policies for mechanization-friendly land management and agricultural investment.

4.2.6 Private Sector Engagement and Financing

Goal: Promote and facilitate private sector engagement and investment in mechanization services and equipment supply.

Strategies:

- All tiers of Government to promote private sector participation in mechanization services and equipment supply.
- All tiers of government shall establish financing mechanisms to support farmers and private sector investors in accessing mechanization technologies.
- Government at all levels shall provide growth support for all agricultural machinery ownership (with validation of support letter from NCAM and other relevant centers).

**Recommended Actions:**

- i. Develop Support Programmes: Create standards and programmes that support private sector-led mechanization services. (Actors: All tiers of government).
- ii. Concessional Financing: Establish financing mechanisms through CBN and other institutions offering single-digit interest rates with extended moratorium and repayment periods. (Actors: CBN, Other Financial Institutions).
- iii. Encourage Public Private Partnership (PPP) in the provision of agricultural mechanization services. (Actors: All tiers of government).
- iv. Expand NIRSAL-backed guarantees and insurance support for mechanization financing.
- v. Develop agricultural mechanization venture funds and green financing windows for agritech startups and machinery service providers.
- vi. Provide fiscal incentives, tax holidays, and import support for private investors in mechanization services and manufacturing.
- vii. Encourage commercial banks and development finance institutions to establish dedicated agricultural mechanization financing products.

4.2.7 Increased Ownership of Machinery and Equipment

Goal: Increase ownership of agricultural machinery and equipment to accelerate the pace of agricultural mechanization.

Strategies:

- Encourage government at all levels to provide incentives that will reduce the cost of farm machinery and equipment to ensure that machinery services are affordable, reliable, durable and accessible to farmers and processors.
- Provide adequate financing through government, donor agencies and private sector.

Recommended Actions:

- i. Provide Incentives: Government to provide incentives to reduce the cost of machinery, making services affordable, reliable, and accessible.



- ii. Create Synergy: Foster synergy between research institutions, manufacturing industries, and the private sector for steady technology flow.
- iii. Agricultural Mechanization Development Fund: Establish an Agricultural Mechanization Development Fund domiciled with the CBN, derived from a 1% levy on imported agricultural machinery, to revolutionize the sector. (Actors: FMAFS, ARCN, CBN).
- iv. Promote machinery hiring and leasing systems to reduce the burden of individual ownership.
- v. Establish state-level mechanization hubs and shared equipment service centers.
- vi. Provide targeted subsidies and incentives for locally assembled machinery and spare parts.
- vii. Support cooperative ownership models for tractors, harvesters, and processing equipment.
- viii. Strengthen local spare-parts production, maintenance systems, and after-sales service networks.

4.2.8 Financing of Agricultural Mechanization Technologies

Goal: Encourage sustainable financing of agricultural mechanization technologies development in Nigeria.

Strategy:

- Facilitating skill acquisition on relevant agricultural mechanization machines and tools through staff exchange programs with similar institutions in the developed countries.

Recommended Actions:

- i. Training of researchers, technologists, technicians and artisans in the fabrication, operation and management of modern machines tools for the production of agricultural mechanization technologies (Actors: FMAFS, ARCN, Ministry of foreign affairs and relevant agricultural mechanization research institutes and State Governments; Timeline: 5 years).



- ii. Establish Agricultural Mechanization Innovation and Commercialization Funds. (Actors: FMAFS, MAN, NUC, TETFUND, PTDF)
- iii. Promote international technical exchange programmes and partnerships for advanced mechanization skills acquisition. (FMAFS, FMOJ)
- iv. Strengthen collaboration between research institutes and manufacturing industries for commercialization of innovations. (FMAFS, MAN, NUC, TETFUND, PTDF)
- v. Expand access to climate-smart agricultural financing and green technology funds. (FMAFS, National Agency on Climate Change, TETFUND, PTDF, AFDB)

4.2.9 Researchers and Indigenous Fabricators

Goal: Upgrade the skills of researchers and Indigenous fabricators in agricultural mechanization technologies.

Strategies:

- Developing national test codes and standards for agricultural mechanization technologies and techniques.
- Encouraging NCAM and other relevant agencies to train indigenous fabricators on the production of standardized agricultural mechanization technologies in their localities.

Recommended Actions:

- i. Strengthening the NCAM-NIAE-SON committee on agricultural mechanization technologies to develop and enforce national standards, testing codes, and certification systems for locally fabricated equipment. (Actors: FMAFS, NCAM, NIAE and SON; Timeline: 5 years).
- ii. NCAM to coordinate the training for indigenous fabricators on the production of standardized agricultural mechanization technologies (Actors: FMAFS and NCAM; Timeline: 5 years).
- iii. Establish regional fabrication and mechanization innovation hubs.
- iv. Support local content policies that prioritize locally fabricated mechanization equipment in government procurement.



- v. Facilitate access to financing and technical upgrading for local fabricators and SMEs.

4.2.10 Quality Assurance and Standards

Goal: Ensure quality assurance of all agricultural mechanization technologies and techniques through testing and certification.

Strategies:

- Testing and certifying all agricultural mechanization technologies and techniques developed in Nigeria or imported.
- Enacting an enabling legislation to enforce statutory mandate of NCAM on testing and certification of agricultural mechanization technologies and techniques developed locally or imported.
- Develop a harmonized framework to guide the operations of the proposed department of Agricultural Mechanization

Recommended Actions:

- i. Upgrade Testing Facilities: Upgrade NCAM and SON testing laboratories and certification facilities. (Actors: SON, FMAFS, NCAM; Timeline: 5 years).
- ii. Enabling Law: Enact legislation to enforce NCAM's statutory mandate for testing and certification of compulsory testing and certification for all locally manufactured and imported mechanization equipment. (Actors: National Assembly, FMAFS; Timeline: 5 years).
- iii. Harmonized Framework: Develop a harmonized framework to guide the operations of agricultural mechanization departments at all government levels. (Actors: FMAFS, NCAM and NIAE; Timeline: 5 years).
- iv. Develop digital registration and traceability systems for agricultural machinery.
- v. Strengthen enforcement against substandard machinery imports.

4.2.11 Establishment of Agricultural Engineering and Mechanization Dept. Across States

Goal: Establish Agricultural Engineering and Mechanization departments at Federal, State and Local Government levels.

**Strategy:**

- Developing a framework to guide the operations of the proposed department of Agricultural Mechanization.

Recommended Actions:

- i. A committee comprising FMAFS, NCAM, NIAE and other relevant agricultural mechanization agencies shall carry out the task of creating a harmonized framework for the proposed department of Agricultural Mechanization within Federal, State, and Local Government agriculture ministries. (Actors: FMAFS, NCAM, NIAE and other relevant agencies; Timeline: 5 years).
- ii. Develop harmonized operational guidelines for mechanization departments nationwide.
- iii. Deploy trained agricultural engineers and mechanization specialists across all states.
- iv. Integrate mechanization planning, monitoring, and extension coordination into departmental responsibilities. (Actors: FMAFS, NCAM, NIAE and other relevant agencies; Timeline: 5 years)

4.2.12 Climate-Smart and Digital Agriculture

Goal: Adapt all agricultural mechanization technologies to optimize Climate-Smart Agriculture.

Strategies:

- Strengthen weather data capturing and sharing.
- Support and strengthen research on smart agricultural mechanization technologies and its application.
- Replicate smart agricultural mechanization across the six Geo-Political zones in Nigeria.
- Promote Conservation Agriculture using Appropriate Mechanization Technologies.

Recommended Actions:

- i. Strengthen Data Capture: Promote the use of AI, IoT, GIS, drones, remote sensing, and precision agriculture systems and informed decision-



- making (Actors: Federal/State/Local Governments, NCAM, and NARIs; Timeline: 5 years).
- ii. Fund Smart Tech R&D: The government and private sector should fund research and development of smart agricultural mechanization technologies. (Actors: Federal/State/Local Governments, NCAM and NARIs; Timeline: 5 years.
 - iii. Upgrade Satellite Facilities: The government and the private sector shall sustain and upgrade Nigeria's satellite facilities for accurate data capturing on climate data sharing. (Actors: Federal, states, local governments, NASRDA and NIMET).
 - iv. Replication Across Zones: Replicate smart agricultural mechanization initiatives across all six geopolitical zones to include the use of Drones, Unmanned Aerial Vehicle (UAV), GIS, IoT, etc.
 - v. Strengthen weather forecasting, climate data systems, and digital advisory services through NIMET and NASRDA.
 - vi. Promote renewable energy-powered mechanization systems and conservation agriculture technologies. (Actors: FMAFS and REA).
 - vii. Expand rural broadband connectivity and digital infrastructure for smart agriculture adoption. (Actors: FMAFS, FMDE&C, NITDA and NCC)

4.2.13 Access to Agricultural Mechanization Technologies.

Goal: Creation of Access to Appropriate and Affordable Agricultural Mechanization Technologies.

Strategies:

- Stimulating the participation of Private Investors in the manufacturing and distribution of agricultural mechanization technologies.
- Providing agricultural mechanization hiring and servicing Centers in each state of the federation.

Recommended Actions:

- i. Government to provide an enabling environment, such as patronage, tax holiday, single-digit loan, to Private Investors on the manufacturing



- and distribution of agricultural mechanization technologies (Actors: Federal, States and Local Governments; Timeline: 5 years).
- ii. Establish new and encourage the existing agricultural mechanization service providers in all the states of the federation (Actors: Federal, states and local governments; Timeline: 5 years).
 - iii. NCAM is to be funded to establish agricultural mechanization technologies service centers across the six geopolitical zones of the country (Actors: FMAFS and NCAM; Timeline: 5 years).
 - iv. Enable Private Investors: Provide an enabling environment (patronage, tax holidays) for private investors in manufacturing and distribution.
 - v. Digitize machinery booking, hiring, payment, and service delivery systems.
 - vi. Strengthen spare-parts distribution and maintenance networks nationwide.

4.2.14 Extension Services and Access

Goal: Promotion of sustainable extension services for Agricultural Mechanization Technologies.

Strategies:

- Adoption of existing Agricultural mechanization technologies extension framework.
- Strengthen capacity building and synergy among stakeholders in agricultural mechanization extension services.
- Championing of extension on agricultural mechanization technologies by professional experts.

Recommended Actions:

- i. Strengthen Extension Framework: Strengthen coordination among extension stakeholders and develop a dedicated agricultural mechanization extension framework. (Actors: Federal Department of Extension, NAERLS, NCAM, ADPs; Timeline: 5 years).



- ii. Demonstrations: Equip service centers to carry out demonstrations of technologies for end-users. (Actors: Federal/State/Local Governments, Private Sector; Timeline: 5 years).
- iii. Federal Department of Extension and NAERLS to facilitate coordinated extension activities in the agricultural mechanization development to train mechanization-specific extension agents and service providers. (Actors: Federal Department of Extension and NAERLS; Timeline: 5 years).
- iv. A committee comprising NAERLS, NCAM, ADP's and the Federal Department of Extension shall be set up to develop an agricultural mechanization technologies extension framework (Actors: FMAFS, NAERLS and NCAM; Timeline: 5 years).
- v. Department of Agricultural Mechanization to establish demonstration farms and mechanization field schools in all states.
- vi. Promote digital extension systems using mobile platforms, radio, GIS, and local language communication tools.

4.2.15 Insurance for Agricultural Mechanization

Goal: Cover all related risks in the Adoption of Agricultural Mechanization Technologies.

Strategies:

- Develop comprehensive insurance products that cover machinery, operators, and related operational risks to build confidence among investors, financiers, and farmers.
- Extend occupational hazard allowance and other incentives to all cadres involved in Agricultural Mechanization technology, development and adoption.

Recommended Actions:

- i. Encourage and incentivize insurance companies and risk agents to expand their product classes to cover all risks associated with agricultural mechanization adoption (Actors: Employers of Agricultural Mechanization Labors, NAIC and relevant stakeholders, Timeline: 5 years).



- ii. Extend occupational hazard allowances and other incentives to all cadres involved in agricultural mechanization technology, development and adoption. (Actors: Nigerian Agricultural Insurance Corporation (NAIC), NIRSAL, Insurance Brokers, Other Risk Agents; Timeline: 5 years).
- iii. Promote awareness campaigns on mechanization insurance benefits.

4.2.16 Create Access to Agricultural Mechanization for Persons with Disabilities (PWD)

Goal: To encourage PWD to participate actively in the Agricultural Mechanization activities ensure that inclusiveness

Strategies:

- Agricultural mechanization technology is ergonomically friendly to PWD.
- Provide access and support for people with disabilities in Agricultural Mechanization.

Recommended Actions:

- i. Promote the development and adoption of ergonomically adaptive mechanization technologies for PWDs. (Actors: FMAFS; NCAM; SON; Universities and Polytechnics; National Commission for Persons with Disabilities (NCPWD); Private Agricultural Equipment Manufacturers)
- ii. Provide targeted financing and training support for PWD participation in mechanized agriculture. (Actors: BOA; CBN; NIRSAL; FMofHAPR; NDE; State Ministries of Agriculture; Development Partners; NGOs)
- iii. Mainstream disability inclusion into mechanization policies, training, and service delivery systems. (Actors: FMAFS; NCPWD; National Assembly Committees on Agriculture and Disability Affairs; Agricultural Development Programmes (ADPs); NCAM; Federal Ministry of Labour and Employment)
- iv. Encourage innovation in assistive agricultural technologies and equipment. (Actors: Tertiary Institutions; NCAM; NASENI; RMRDC; Private Sector Innovators; Research Institutes; Technology Incubation Centres)



4.2.17 Women and Youth in Agricultural Mechanization

Goal: Ensure Women and youth participation in all aspect of Agricultural Mechanization development and application.

Strategy:

- Ensure women and youth have equitable access to Agricultural Mechanization Technology.

Recommended Actions:

- i. Establish dedicated Women and Youth Agricultural Mechanization Funds. (Actors: CBN; BOA; FMF; FMYD; FMWA; Development Finance Institutions; State Government)
- ii. Promote gender-responsive and youth-friendly mechanization technologies. (Actors: NCAM; FMWA; FMYD; Universities and Research Institutes; Agricultural Equipment Manufacturers; NGOs and Development Partners)
- iii. Provide startup grants, leasing schemes, and entrepreneurship support for women and youth agripreneurs. (Actors: SMEDAN; BOA; BOI; NIRSAL; State Governments; International Development Partners; Private Sector Investors)
- iv. Expand digital agriculture, smart farming, and agritech innovation programmes targeting youths and persons with disabilities. (Actors: FMCIDE; NITDA; NCAM; NASRDA; Universities; Agri-tech Companies; Innovation Hubs)
- v. Ensure equitable access to land, credit, training, and mechanization services for women and youths. (Actors: FMAFS; State Ministries of Agriculture; State Land Bureaus; Traditional Institutions; BOA; Cooperative Societies; Agricultural Development Programmes (ADPs))
- vi. Integrate women and youth representation into mechanization policy implementation structures. (Actors: FMAFS; National Council on Agriculture and Food Security; State Governments; Farmers' Associations; Women and Youth Agricultural Cooperatives; Civil Society Organizations).



CHAPTER FIVE: INSTITUTIONAL ARRANGEMENTS AND LEGAL FRAMEWORK FOR POLICY IMPLEMENTATION AND COORDINATION

5.1 Overview

The successful implementation of the National Agricultural Mechanization Policy (NAMP) requires a strong institutional, legal, financial, and operational framework capable of addressing the structural challenges that have historically constrained agricultural mechanization in Nigeria. Previous mechanization interventions in the country were weakened by fragmented institutional responsibilities, poor coordination among stakeholders, inadequate financing systems, weak monitoring mechanisms, inconsistent policy implementation, limited private sector participation, and insufficient maintenance and sustainability structures. Consequently, this chapter provides the governance architecture and implementation framework required to ensure that agricultural mechanization becomes sustainable, inclusive, climate-resilient, and results-oriented across the country.

The institutional arrangements under NAMP are designed around the principles of:

- cooperative federalism,
- stakeholder inclusiveness,
- transparency and accountability,
- climate-smart governance,
- private sector participation,
- digital transformation,
- sustainability,
- social inclusion,
- evidence-based planning,
- and decentralized implementation.

The framework recognizes that agricultural mechanization is not merely a technical intervention involving tractors and machinery, but a comprehensive ecosystem involving financing, infrastructure, land systems, human capital



development, climate adaptation, digital technologies, manufacturing systems, extension services, research and innovation, and institutional coordination.

The Federal Ministry of Agriculture and Food Security (FMAFS) shall serve as the national focal institution and lead coordinating agency for agricultural mechanization policy implementation, programme planning, intergovernmental coordination, stakeholder engagement, monitoring, and reporting. However, implementation shall involve a broad network of federal institutions, state and local governments, research institutions, development partners, financial institutions, private sector operators, farmer organizations, civil society organizations, and professional bodies.

To ensure effective implementation, the policy adopts a multi-level governance framework involving:

- national policy coordination,
- state-level implementation structures,
- local government operational support,
- private sector-driven service delivery,
- and community-level participation mechanisms.

The implementation framework also integrates climate-smart agriculture principles, ESG considerations, digital governance systems, gender and youth inclusion, and Sustainable Development Goal (SDG) alignment to ensure long-term sustainability and resilience of the mechanization agenda.

5.2 Leadership, Structures, and Institutions.

The Nigerian Agricultural Mechanization Development Council (NAMDC) shall be the apex policy coordination and decision-making body for agricultural mechanization in Nigeria. The Council shall provide overall strategic leadership, policy direction, implementation oversight, institutional coordination, and accountability for the National Agricultural Mechanization Policy.



The Council shall:

- approve national mechanization strategies and operational guidelines;
- oversee implementation of NAMP;
- coordinate inter-ministerial collaboration;
- approve annual mechanization implementation plans;
- monitor policy performance;
- supervise the Agricultural Mechanization Development Fund;
- review national mechanization performance indicators;
- and submit annual implementation reports to the National Assembly.

The NAMDC shall operate under principles of:

- transparency,
- accountability,
- inclusiveness,
- evidence-based governance,
- and sustainability.

The Council shall meet biannually, while emergency meetings may be convened when necessary.

5.2.2 Membership of NAMDC

The membership of the Council shall include:

- Honourable Minister of Agriculture and Food Security — Chairman;
- Governor of the Central Bank of Nigeria (or representative);
- Executive Director, National Centre for Agricultural Mechanization (NCAM);
- Director-General, Standards Organization of Nigeria (SON);
- Managing Director, Nigerian Agricultural Insurance Corporation (NAIC);
- Comptroller-General, Nigeria Customs Service;
- Representatives of the Manufacturers Association of Nigeria (MAN);
- Representatives of National Farmers' Organizations;
- Representatives of Women in Agriculture Associations;
- Representatives of Youth Agripreneurs;



- Representatives of Persons with Disabilities in Agriculture;
- Representatives of Research and Academic Institutions;
- Representatives of Development Partners;
- Permanent Secretary, Federal Ministry of Agriculture and Food Security — Secretary.

5.2.3 Technical Committees of NAMDC

To enhance operational effectiveness, the NAMDC shall establish specialized technical committees, including:

i. Technical Standards and Quality Assurance Committee

Responsible for machinery standards, certification, testing, and quality control.

ii. Climate-Smart Mechanization Committee

Responsible for sustainability, renewable energy systems, environmental compliance, and climate adaptation.

iii. Mechanization Financing and PPP Committee

Responsible for mechanization financing, investment mobilization, PPP coordination, and private sector participation.

iv. Digital Agriculture and Innovation Committee

Responsible for smart agriculture systems, digital platforms, GIS systems, AI integration, and data management.

v. Gender, Youth, and Social Inclusion Committee

Responsible for ensuring equitable participation of women, youths, and persons with disabilities.

The National Agricultural Mechanization Policy requires an effective institutional arrangement to ensure a results-oriented programme implementation. The implementation is the responsibility of the FMAFS in collaboration with other stakeholders, including the organized private sector, development partners, professional bodies, and civil society organizations.



5.3 Key Implementation Bodies and Their Roles

S/N	Institution	Primary Roles
1.	Federal Ministry of Agriculture and Food Security (FMAFS) The FMAFS shall serve as the policy coordinating institution and secretariat of NAMDC	i. coordinate implementation across sectors; ii. convene stakeholder meetings; iii. prepare annual implementation reports; iv. coordinate donor engagements; v. Monitor implementation performance; vi. Supervise state-level implementation structures.
2.	Nigerian Agricultural Mechanization Development Council.	i. Provide overall policy guidance for implementing the National Agricultural Mechanization Policy. ii. Approve operational guidelines for managing the Fund. iii. Receive and approve annual reports from the Secretariat.
3.	National Centre for Agricultural Mechanization (NCAM) NCAM shall serve as the national technical institution for mechanization research, innovation, testing, and certification	It shall: i. coordinate mechanization R&D; ii. test and certify agricultural machinery; iii. Support for technicians
4.	FMAFS-(AMMOTRAC/BATSU) shall serve as the national capacity development centers.	i. support local fabrication; ii. train agricultural machinery operators and mechanics; iii. establish zonal mechanization service centers
5.	State and Local Governments	State governments shall: i. develop state mechanization implementation plans;



		ii. establish state mechanization committees; iii. support land development programmes; iv. establish mechanization service centers; v. provide counterpart funding; vi. and coordinate local implementation activities.
6	Local Governments	Local governments shall: • support farmer mobilization; • facilitate cooperative formation; • provide extension support; • identify mechanization clusters; • and coordinate community-level implementation.
8.	Private Sector (Investors, Manufacturers,	The private sector shall: i. drive machinery manufacturing and assembly; ii. operate leasing and hiring services; iii. support mechanization financing; iv. invest in agro-industrial mechanization; v. and participate in PPP arrangements.
9.	Financial Institutions (CBN, Commercial Banks, NIRSAL)	i. Provide concessional financing ii. (single-digit loans). Host and manage the Agricultural Mechanization Development Fund. iii. Facilitate credit access using land titles as collateral.



10.	Insurance and Risk Agencies (NAIC, Insurance Brokers)	i. Develop comprehensive insurance products machinery, operators, and related risks. ii. Provide occupational hazard coverage.
11.	Development Partners	i. Resource support, technology transfer, evidencebased advocacy, and technical expertise.
12.	Research and Academic Institutions (NARIs, NIAE, Universities)	i. Conduct baseline studies and technology adaptation research. Review and update academic/training curricula. ii. Participate in skills development and staff exchange programs.

5.4 Institutional Arrangements

5.4.1 Nigerian Agricultural Mechanization Development Council (NAMDC).

The NAMDC shall be the highest decision-making body on agricultural mechanization in Nigeria. It would oversee the delivery of interventions in addressing Nigeria's mechanization challenges. The Agricultural Mechanization Development Council shall be domiciled/secretariat at the Federal Ministry of Agriculture and Food Security. The Chairman of the NAMDC would be the Honourable Minister of Agriculture and Food Security, while the FMAFS would coordinate the activities of the council. The council is expected to submit an annual report to the National Assembly, including audited accounts of the Fund and policy implementation progress.

5.4.2 Membership of the NAMDC

- Chairman: Honourable Minister of Agriculture and Food Security.
- Governor of the Central Bank of Nigeria (or representative).
- Executive Director, National Centre for Agricultural Mechanization (NCAM).
- Director-General, Standards Organization of Nigeria (SON).



- Managing Director, Nigerian Agricultural Insurance Corporation (NAIC).
- Representatives of the Manufacturers Association of Nigeria (MAN).
- Representatives of the National Association of Nigerian Farmers.
- Secretary: Permanent Secretary, Federal Ministry of Agriculture and Food Security.

5.4.3 Federal Ministry of Agriculture and Food Security (FMAFS)

The FMAFS shall serve as the secretariat, administrative and technical arm of the council for NAMDC and coordinate with their counterparts at the State and LGA level. The Permanent Secretary of the FMAFS will serve as the Head of the Secretariat. As the secretariat of the NAMDC, the FMAFS will convene biannual meetings of the NAMDC and produce annual progress reports made on agricultural mechanization across the country.

5.4.4 Central Bank of Nigeria (CBN)

The CBN would act as the Fund Manager of the National Agricultural Mechanization Development Fund and manage the Fund in accordance with Council-approved guidelines.

5.4.5 National Centre for Agricultural Mechanization (NCAM) and Standards Organization of Nigeria (SON)

NCAM & SON are jointly responsible for mandatory testing, certification, and standardization of all agricultural machinery and they would have the power to recommend prohibition of sub-standard equipment.

5.4.6 Nigeria Customs Service (NCS)

The NCS would be responsible for collecting the **1%** levy on imported agricultural machinery at the point of entry and remit to the National Agricultural Mechanization Fund.

5.5 Legal Framework

The legal framework for actualizing the National Agricultural Mechanization Policy (2026-2031) would be anchored on the proposed Nigerian Agricultural Mechanization Bill. In this regard, the preparation of the bill has undergone a



series of consultative meetings with relevant stakeholders at both the federal and state levels, including engagements with the Honourable Attorney-General of the Federation and Minister of Justice. These consultations are essential to ensure policy coherence, consistency, and inclusive ownership throughout the implementation process. The entire process of strengthening accountability and governance is to be institutionalized through legislation. These legislative actions will focus on enacting a law to provide a legal framework for the development of agricultural mechanization in Nigeria, which is crucial for realizing the policy objectives, vision, and effective implementation.

5.6 Agricultural Mechanization Development Fund

A National Agricultural Mechanization Development Fund shall be established to finance mechanization interventions nationwide.

Sources of the Fund shall include:

- Federal Government budgetary allocations;
- 1% levy on imported agricultural machinery;
- contributions from development partners;
- PPP investments;
- grants and donations;
- climate finance and green funds;
- private sector contributions.

The Fund shall support:

- machinery acquisition;
- mechanization service centers;
- local manufacturing;
- climate-smart mechanization;
- training and capacity development;
- digital agriculture systems;
- and mechanization research.

The Fund shall be independently audited annually.



5.7 Digital Governance and Data Systems

The policy shall establish a National Agricultural Mechanization Digital Platform for:

- machinery registration,
- GIS-based land mapping,
- digital extension systems,
- mechanization data collection,
- machinery tracking,
- and performance monitoring.

Digital systems shall integrate: AI, IoT, remote sensing, drone technologies, satellite systems, and precision agriculture tools.

5.8 Climate-Smart Mechanization Governance

The policy shall promote environmentally sustainable agricultural mechanization systems through:

- renewable energy-powered machinery,
- precision agriculture,
- minimum tillage systems,
- climate-resilient technologies,
- sustainable land management,
- and emissions reduction strategies.

Environmental and Social Impact Assessments (ESIAs) shall be mandatory for major mechanization projects.

5.9 Public-Private Partnership (PPP) Framework

The policy shall promote PPPs in:

- machinery assembly,
- leasing systems,
- irrigation infrastructure,
- agro-industrial mechanization,
- digital agriculture systems,
- and mechanization service delivery.



Government shall provide:

- tax incentives,
- concessionary financing,
- investment guarantees,
- and local content support.

5.10 Gender, Youth and Social Inclusion Framework

The policy shall ensure inclusive agricultural mechanization implementation by:

- establishing dedicated financing windows for women and youths;
- supporting PWD-friendly mechanization technologies;
- promoting youth agritech entrepreneurship;
- ensuring representation of women and youths in governance structures;
- and mainstreaming gender-responsive mechanization systems.

5.11 Stakeholder Engagement and Communication Strategy

The implementation framework shall adopt continuous stakeholder engagement involving: farmers, cooperatives, traditional institutions, manufacturers, researchers, development partners, civil society organizations, and agritech innovators. National mechanization forums and annual stakeholder dialogues shall be organized periodically.

5.12 Risk Management Framework

Potential implementation risks include:

- corruption, policy inconsistency, insecurity, climate shocks, exchange rate volatility, weak institutional coordination, and machinery import dependence.

Mitigation measures shall include:

- independent audits, digital procurement systems, diversified financing, local manufacturing promotion, climate adaptation systems, and strong monitoring frameworks.



5.13 Legal Framework

The implementation of NAMP shall be anchored on the proposed Nigerian Agricultural Mechanization Act.

The legislation shall provide:

- legal backing for NAMDC; establishment of the Agricultural Mechanization Development Fund; machinery standards and certification requirements; implementation responsibilities; financing mechanisms; enforcement provisions; and sanctions for non-compliance.

The legal framework shall align with:

- the Land Use Act, SON Act, NCAM Act, Environmental Laws, PPP Laws, Customs and Excise Laws, Climate Change Act,
- and relevant agricultural regulations.

5.14 Implementation Timeline and Sequencing

Immediate Phase (Year 1)	Medium-Term Phase (Years 2–3)	Long-Term Phase (Years 4–5)
• Establish NAMDC; • operationalize the Fund; • commence baseline studies; • develop digital systems; • pilot mechanization clusters.	• Expand mechanization service centers; • strengthen local manufacturing; • scale digital agriculture systems; • expand financing programmes.	• Achieve nationwide mechanization scale-up; • strengthen export competitiveness; • consolidate climate-smart mechanization systems; • conduct policy review and impact evaluation.

5.15 Governance and Implementation Structure

Figure 4 illustrates the governance and implementation structure of NAMP. The structure demonstrates the hierarchical and collaborative relationships among federal institutions, state governments, private sector actors, financial institutions, research organizations, and development partners involved in agricultural mechanization implementation. The governance structure is designed to ensure policy coherence, institutional accountability, operational coordination, and decentralized implementation across all levels of government.

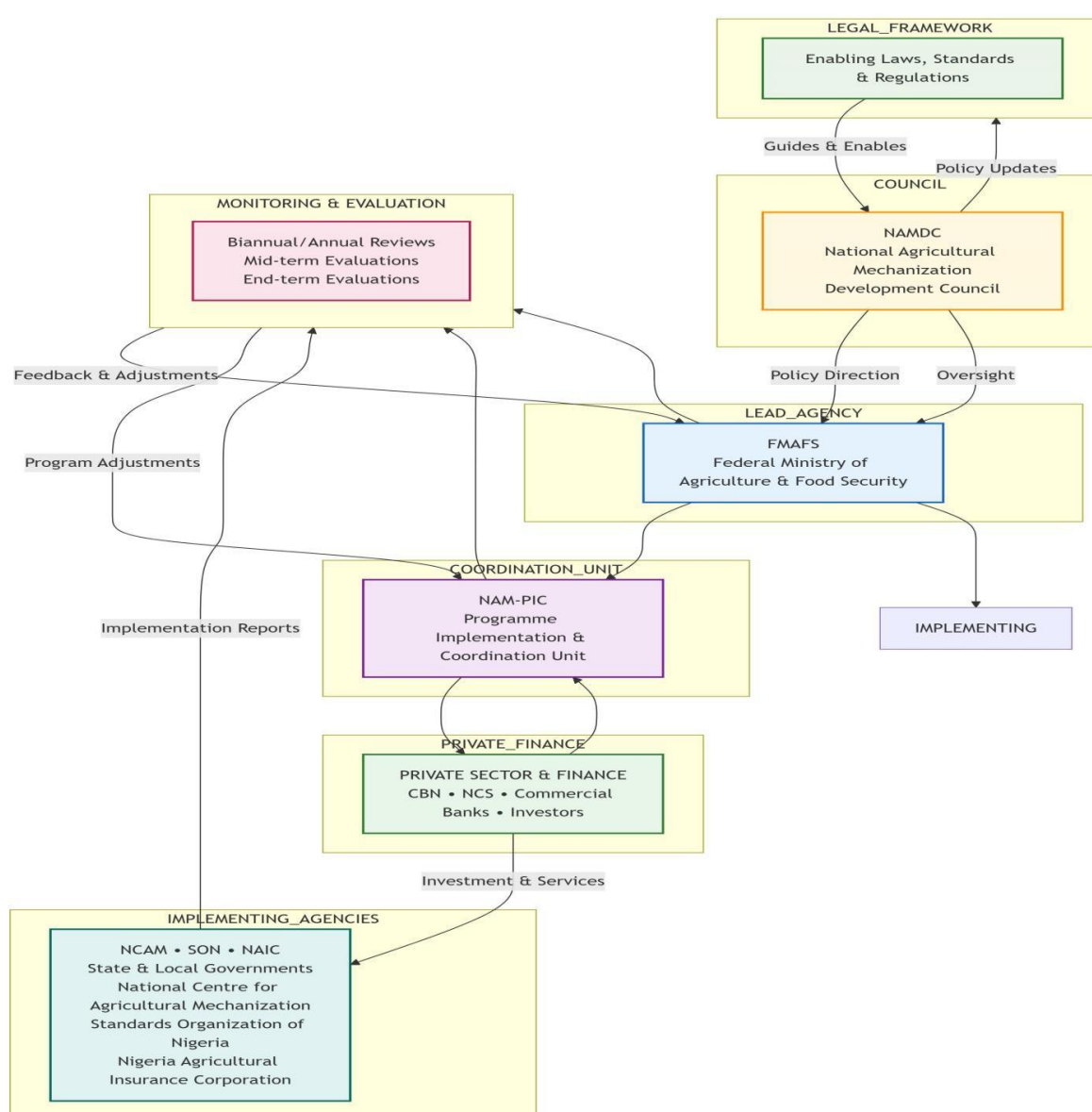


Figure 4: Governance and Implementation Structure of NAMP.



CHAPTER SIX: FUNDING STRUCTURE AND PARTNER COORDINATION.

6.1 Financing Framework

Sustainable financing is critical to the successful implementation of the National Agricultural Mechanization Policy (NAMP). Previous mechanization programmes in Nigeria were often constrained by inadequate funding, fragmented financing systems, weak credit access, high machinery acquisition costs, foreign exchange volatility, poor maintenance funding, and limited private sector investment. To address these challenges, the National Agricultural Mechanization Development Fund (NAMDF) shall be established as the primary financing mechanism for implementing the National Agricultural Mechanization Policy.

The Fund shall be managed by the Central Bank of Nigeria (CBN) under the supervision of the Nigerian Agricultural Mechanization Development Council (NAMDC), in accordance with approved operational and governance guidelines. The Fund is intended to provide sustainable, transparent, and targeted financing for agricultural mechanization development across the entire agricultural value chain.

The objectives of the Fund shall include:

- supporting mechanization access and adoption;
- promoting local manufacturing and assembly of agricultural machinery;
- strengthening mechanization service delivery systems;
- financing mechanization research and innovation;
- supporting climate-smart and digital mechanization systems;
- enhancing human capital development and technical training;
- and promoting inclusive mechanization for women, youths, and persons with disabilities.

6.1.2 Sources of Funding

The National Agricultural Mechanization Development Fund shall derive its resources from multiple sources, including:

- i. A 1% levy on the Cost-Insurance-Freight (CIF) value of imported agricultural machinery and equipment.



- ii. Annual budgetary allocations from the Federal Government of Nigeria.
- iii. Grants, loans, and technical support from bilateral and multilateral development partners.
- iv. Contributions from state governments and local government authorities.
- v. Returns on investments, accruals, and operational surpluses from Fund-supported projects.
- vi. Contributions from the private sector, agribusiness firms, and financial institutions.
- vii. Climate finance, green financing mechanisms, and sustainability funds.
- viii. Public-Private Partnership (PPP) investments and concession arrangements.
- ix. Donations, endowments, and intervention support from international foundations and philanthropic organizations.

6.1.3 Utilization of the Fund

The Fund shall be dedicated exclusively to strategic mechanization interventions, including:

- i. Provision of concessional financing and single-digit interest loans for agricultural machinery acquisition.
- ii. Financing local manufacturing, assembly, and fabrication of agricultural machinery and spare parts.
- iii. Provision of grants and financing support to farmer cooperatives, mechanization service providers, women and youth agripreneurs, and agro-industrial enterprises.
- iv. Support for mechanization hiring and leasing schemes nationwide.
- v. Financing research, innovation, and development in agricultural engineering, precision agriculture, climate-smart mechanization, and digital agriculture.
- vi. Support for mechanization training centers, technical institutions, and human capital development programmes.
- vii. Establishment and strengthening of mechanization service centers and agro-mechanization hubs.



- viii. Promotion of renewable energy-powered mechanization technologies and sustainable land management systems.
- ix. Support for digital agriculture systems, machinery tracking, GIS mapping, AI-driven farming systems, and smart agriculture technologies.
- x. Financing pilot projects, demonstration farms, and mechanization innovation clusters.

6.1.4 Fund Governance and Accountability

To ensure transparency, accountability, and efficient resource utilization, the Fund shall operate under strict financial governance mechanisms, including:

- i. Independent annual financial audits.
- ii. Periodic monitoring and evaluation of funded projects.
- iii. Digital financial tracking and reporting systems.
- iv. Transparent disbursement procedures and eligibility criteria.
- v. Annual reporting to the National Assembly and relevant oversight institutions.
- vi. Anti-corruption and procurement compliance mechanisms.
- vii. Performance-based financing and impact assessment systems.

The financing framework shall prioritize sustainability, inclusion, climate resilience, and private sector participation in order to build a resilient and competitive agricultural mechanization ecosystem in Nigeria.

6.2 Development Partners, Private Sector, Networks, and Professional Bodies

The implementation of the National Agricultural Mechanization Policy requires strong collaboration among government institutions, development partners, private sector operators, research institutions, professional bodies, financial institutions, civil society organizations, and international agencies. Mechanization development is multidisciplinary and capital-intensive; therefore, coordinated stakeholder participation is essential for achieving sustainable and large-scale impact.



The policy adopts a multi-stakeholder partnership framework aimed at mobilizing technical expertise, financing, innovation, technology transfer, human capital development, research support, and institutional strengthening.

6.2.1 Professional Bodies

Relevant professional bodies, including the Nigerian Institution of Agricultural Engineers (NIAE), Council for the Regulation of Engineering in Nigeria (COREN), Nigerian Society of Engineers (NSE), Nigerian Institution of Mechanical Engineers (NIMechE), and related technical associations, shall support the implementation of the National Agricultural Mechanization Policy through the provision of technical expertise, professional guidance, research support, capacity-building, standardization, and quality assurance services.

Professional bodies shall support policy implementation through:

- i. Providing technical expertise and professional guidance for mechanization policy formulation, implementation, monitoring, and review.
- ii. Developing, promoting, and enforcing professional standards, codes, guidelines, and best practices in agricultural mechanization.
- iii. Supporting machinery testing, certification, quality assurance, and standardization processes.
- iv. Strengthening human capital development through pre-service training, in-service training, continuous professional development, mentorship, and technical certification programmes.
- v. Supporting research, innovation, and evidence generation in agricultural engineering and mechanization systems.
- vi. Facilitating knowledge sharing, technical collaboration, conferences, workshops, and policy dialogue platforms.
- vii. Promoting ethical engineering practices, safety standards, and environmental compliance in mechanization operations.
- viii. Supporting local fabrication and technology commercialization initiatives.



6.2.2 Private Sector

The private sector shall serve as the primary driver of machinery manufacturing, mechanization service delivery, innovation, investment, and commercialization within Nigeria's agricultural mechanization ecosystem. The policy recognizes that sustainable mechanization development cannot be achieved through government interventions alone. Consequently, strong private sector participation shall be encouraged through enabling policies, investment incentives, financing support, and Public-Private Partnership (PPP) arrangements.

Private sector collaboration shall align with existing laws, regulations, and the strategic objectives of the National Agricultural Mechanization Policy.

Specific areas of private sector participation shall include:

- i. Investment in local manufacturing, assembly, and distribution of agricultural machinery and spare parts to promote import substitution and local content development.
- ii. Establishment and operation of mechanization hiring, leasing, and service delivery centers nationwide.
- iii. Provision of innovative financing models, including leasing systems, pay-per-use models, equipment financing, and agritech investment platforms.
- iv. Development and deployment of smart agriculture technologies, digital mechanization platforms, precision agriculture systems, AI-driven farming tools, and GIS-based services.
- v. Development of mechanization value chains, including maintenance systems, spare-parts distribution, logistics, and after-sales services.
- vi. Participation in Public-Private Partnerships (PPPs) for agro-industrial parks, irrigation systems, land development projects, and mechanization infrastructure.
- vii. Promotion of renewable energy-powered mechanization systems and climate-smart agricultural technologies.



viii. Support for agritech startups, mechanization innovation hubs, and youth-led agricultural enterprises.

ix. Collaboration with research institutions and universities for technology transfer and innovation commercialization.

Government shall provide fiscal incentives, tax waivers, investment guarantees, and enabling business environments to encourage increased private sector investment in mechanization development.

6.2.3 Development Partners (DPs)

Development partners — including multilateral organizations, bilateral agencies, international financial institutions, international NGOs, and philanthropic foundations — shall play strategic roles in supporting the implementation of the National Agricultural Mechanization Policy. Their comparative advantage lies in providing catalytic financing, technical assistance, institutional strengthening, technology transfer, capacity development, and policy support.

Key development partners may include the World Bank, African Development Bank (AfDB), Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), United States Agency for International Development (USAID), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Japan International Cooperation Agency (JICA), Islamic Development Bank (IsDB), International Institute of Tropical Agriculture (IITA), and other relevant international organizations.

Development partners shall support policy implementation through:

- i. Provision of catalytic financing, blended finance mechanisms, guarantees, and risk-sharing instruments for mechanization investments.
- ii. Technical assistance in policy formulation, institutional strengthening, governance systems, digital agriculture, and climate-smart mechanization.
- iii. Funding research, innovation, pilot programmes, technology adaptation, and mechanization demonstration projects.



- iv. Supporting human capital development, technical training, extension systems, and institutional capacity strengthening.
- v. Supporting inclusive mechanization programmes targeting women, youths, smallholder farmers, and persons with disabilities.
- vi. Promoting climate-smart mechanization systems, renewable energy integration, sustainable land management, and low-carbon agricultural technologies.
- vii. Supporting monitoring, evaluation, digital governance systems, and evidence-based policy implementation.
- viii. Facilitating international technology transfer, South-South cooperation, and global technical partnerships.
- ix. Supporting Public-Private Partnerships (PPPs), agribusiness ecosystems, and mechanization innovation platforms.
- x. Supporting pilot mechanization hubs, smart agriculture clusters, and scalable demonstration projects across Nigeria's agro-ecological zones.

The Government of Nigeria shall strengthen coordination mechanisms with development partners to avoid duplication, improve alignment with national priorities, and ensure long-term sustainability of mechanization interventions.



CHAPTER SEVEN: MONITORING, EVALUATION, AND IMPLEMENTATION STRATEGY

7.1 Introduction

The successful implementation of the National Agricultural Mechanization Policy (NAMP) requires a robust, transparent, adaptive, and results-oriented Monitoring, Evaluation, Reporting, and Learning (MERL) framework. This framework shall guide policy implementation, monitor progress, strengthen accountability, facilitate evidence-based decision-making, and ensure continuous improvement throughout the policy cycle. The strategy recognizes that effective agricultural mechanization governance depends not only on policy formulation but also on systematic implementation tracking, performance measurement, institutional coordination, and adaptive policy management.

The Monitoring, Evaluation, and Implementation Strategy shall therefore establish a comprehensive governance and accountability system designed to ensure that all policy interventions are implemented efficiently, effectively, transparently, and sustainably. The framework shall institutionalize a data-driven culture in which continuous learning, operational feedback, innovation, transparency, stakeholder participation, and performance accountability become central principles guiding all mechanization interventions undertaken by government institutions, private sector actors, development partners, research institutions, and other stakeholders.

The strategy shall support the generation of reliable, timely, interoperable, and dis-aggregated mechanization data through integrated information systems, digital monitoring platforms, GIS-based tracking systems, real-time reporting mechanisms, and operational research. The framework shall also strengthen policy coherence and implementation alignment across federal, state, and local government levels while supporting climate-smart mechanization, digital agriculture systems, social inclusion, and sustainable development objectives.

The operational procedures, institutional mandates, reporting structures, performance indicators, financing accountability systems, digital governance mechanisms, and enforcement arrangements under this strategy shall be fully



aligned with the implementation provisions of the National Agricultural Mechanization Policy and related legislative instruments.

7.2 Goal and Objectives of Monitoring and Evaluation (M&E)

7.2.1 Goal

The primary goal of the Monitoring, Evaluation, Reporting, and Learning (MERL) framework is to strengthen performance, accountability, transparency, institutional learning, and evidence-based implementation of the National Agricultural Mechanization Policy in order to achieve sustainable agricultural transformation and improved mechanization outcomes across Nigeria.

7.2.2 Objectives

The objectives of the MERL framework shall include:

- i. Tracking progress toward the achievement of NAMP goals, targets, and expected outcomes.
- ii. Monitoring the efficiency, effectiveness, sustainability, and inclusiveness of mechanization interventions nationwide.
- iii. Generating timely, accurate, reliable, and dis-aggregated mechanization data for evidence-based decision-making.
- iv. Strengthening transparency, accountability, and responsible utilization of public and private resources.
- v. Supporting adaptive management, continuous learning, and policy improvement.
- vi. Assessing socioeconomic, environmental, and climate-related impacts of mechanization interventions.
- vii. Monitoring gender, youth, and disability inclusion in mechanization programmes.
- viii. Facilitating stakeholder participation, policy dialogue, and institutional coordination.
- ix. Supporting national reporting obligations related to SDGs, Agenda 2063, climate commitments, and national development plans.



- x. Strengthening digital governance and innovation-driven mechanization planning systems.

7.3 Implementation Structure

7.3.1 National Agricultural Mechanization Policy Implementation Committee (NAM-PIC)

A National Agricultural Mechanization Policy Implementation Committee (NAM-PIC) shall be established to coordinate and supervise the implementation of the National Agricultural Mechanization Policy. The Committee shall serve as the central implementation coordination platform responsible for translating policy objectives into actionable programmes, projects, annual work plans, and measurable outcomes.

The NAM-PIC shall be chaired by the Honourable Minister of Agriculture and Food Security and shall comprise representatives from all key implementing institutions and stakeholders, including:

- Federal Department of Agricultural Mechanization (FDAM);
- National Centre for Agricultural Mechanization (NCAM);
- National Agricultural Research Institutes (NARIs);
- Central Bank of Nigeria (CBN);
- Standards Organization of Nigeria (SON);
- Nigerian Agricultural Insurance Corporation (NAIC);
- Nigeria Customs Service (NCS);
- State Ministries of Agriculture;
- Development partners;
- Private sector associations;
- Financial institutions;
- Professional bodies;
- Farmer organizations;
- Women and youth agricultural groups;
- Civil society organizations;
- and relevant academic and research institutions.



The Committee shall be responsible for:

- i. Coordinating the implementation of NAMP across all levels of government.
- ii. Developing detailed annual implementation plans, budgets, and resource mobilization strategies.
- iii. Coordinating stakeholder participation and institutional collaboration.
- iv. Monitoring implementation progress and addressing implementation bottlenecks.
- v. Strengthening policy coherence and alignment across sectors and institutions.
- vi. Facilitating digital governance and data management systems.
- vii. Supervising monitoring, evaluation, reporting, and learning activities.
- viii. Supporting climate-smart mechanization implementation and sustainability integration.
- ix. Coordinating development partner engagements and PPP arrangements.
- x. Reviewing implementation performance and recommending policy adjustments where necessary.

7.3.2 State and Local Government Implementation Structures

State governments shall establish State Agricultural Mechanization Implementation Committees (SAMICs) to coordinate policy implementation at the sub-national level. These committees shall align state mechanization programmes with national priorities while addressing state-specific agricultural and mechanization challenges.

Local Government Mechanization Support Units (LGMSUs) shall also be established to support:

- farmer mobilization,
- extension coordination,
- cooperative development,
- community-level mechanization support,
- and grassroots monitoring activities.



7.4 Monitoring and Evaluation Framework

The NAM-PIC shall establish and operationalize a robust Monitoring, Evaluation, Reporting, and Learning (MERL) framework with clearly defined indicators, baselines, targets, timelines, institutional responsibilities, and reporting mechanisms derived from the expected outcomes of the National Agricultural Mechanization Policy.

The framework shall monitor:

- machinery acquisition and utilization rates;
- mechanized land development;
- mechanization service delivery;
- financing performance;
- local manufacturing growth;
- mechanization adoption rates;
- climate-smart mechanization indicators;
- employment generation;
- youth and women participation;
- environmental sustainability;
- and digital agriculture adoption.

Monitoring Tools and Systems

The MERL framework shall utilize:

- GIS and remote sensing systems;
- digital mechanization databases;
- satellite monitoring systems;
- mobile reporting platforms;
- AI-enabled data analytics;
- precision agriculture monitoring tools;
- digital dashboards;
- and integrated national mechanization information systems.

Evaluation Schedule

- i. Quarterly internal implementation reviews.
- ii. Biannual progress monitoring and performance assessment.



- iii. Annual national mechanization performance reviews.
- iv. Mid-term evaluation at the end of Year 2 or Year 3.
- v. Comprehensive end-of-policy evaluation in Year 5.

Independent evaluations shall be conducted periodically to assess policy effectiveness, institutional performance, financial accountability, sustainability outcomes, and socioeconomic impact.

7.5 Reporting and Accountability Framework

The NAM-PIC shall submit biannual implementation progress reports to the Nigerian Agricultural Mechanization Development Council (NAMDC).

The reporting framework shall include:

- i. Quarterly technical implementation reports.
- ii. Biannual progress reports.
- iii. Annual national mechanization implementation reports.
- iv. Financial accountability and audit reports.
- v. Climate-smart mechanization and sustainability reports.
- vi. Gender and social inclusion performance reports.
- vii. State-level implementation scorecards.

To strengthen transparency and public accountability:

- annual implementation reports shall be publicly accessible;
- stakeholder consultation forums shall be conducted annually;
- and implementation performance dashboards shall be digitized and publicly monitored.

The Federal Ministry of Agriculture and Food Security shall present annual implementation reports to the National Assembly and relevant oversight institutions.

7.6 Digital Innovation and Smart Monitoring Systems

The Nigerian Agricultural Mechanization Development Council (NAMDC) shall actively pursue digital innovation and strategic partnerships to improve monitoring efficiency, operational effectiveness, transparency, and value-for-money across all mechanization interventions.



The policy shall promote the use of:

- Artificial Intelligence (AI),
- Internet of Things (IoT),
- GIS and remote sensing,
- drone technologies,
- block chain traceability systems,
- smart sensors,
- cloud-based data systems,
- and digital extension platforms.

Digital innovation shall support:

- i. Real-time machinery tracking and utilization monitoring.
- ii. National agricultural mechanization databases and digital registries.
- iii. E-extension and digital advisory services.
- iv. Digital financing and mechanization leasing platforms.
- v. Mechanization demand forecasting and planning.
- vi. Environmental monitoring and climate-smart agriculture systems.
- vii. Digital procurement and anti-corruption monitoring systems.
- viii. Online reporting, feedback, and grievance redress systems.

The Government shall collaborate with technology firms, research institutions, development partners, telecom companies, agritech startups, and innovation hubs to strengthen digital mechanization governance and smart agriculture systems nationwide.

7.7 Learning, Knowledge Management, and Policy Adaptation

The implementation strategy shall institutionalize continuous learning, knowledge management, innovation exchange, and adaptive policy management.

This shall include:

- annual national mechanization summits;
- policy dialogue forums;
- publication of policy briefs and technical reports;
- research dissemination workshops;



- stakeholder learning platforms;
- and cross-country knowledge exchange programmes.

Lessons learned from implementation shall be used to periodically review and strengthen mechanization policies, implementation strategies, financing systems, and governance arrangements.

7.8 Risk Management and Adaptive Implementation

Potential implementation risks may include:

- inadequate funding,
- policy discontinuity,
- corruption,
- insecurity,
- climate shocks,
- foreign exchange instability,
- weak institutional coordination,
- poor maintenance culture,
- and low technology adoption.

To address these risks, the implementation strategy shall adopt:

- contingency planning mechanisms;
- diversified financing systems;
- digital accountability systems;
- phased implementation approaches;
- climate adaptation strategies;
- and strong stakeholder coordination mechanisms.

Adaptive implementation systems shall ensure that policy interventions remain responsive to emerging realities, technological changes, climate conditions, and national development priorities throughout the policy cycle.

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