

Country: **(Senegal)**



NATIONAL RICE INVESTMENT ACTION PLAN(NRIAP)

Strategic priorities, aligns with National Rice Development Strategy
(NRDS), and attract investments

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Acronyms and Abbreviations

AfricaRice	Africa Rice Center
ANCAR	National Agency for Agricultural and Rural Advice
BPA	Good Agricultural Practices
CDV	Value Chain
ECOWAS	Economic Community of West African States
NAFSA	National Agricultural Insurance Company of Senegal
CPSP	Price Equalisation and Stabilisation Fund
DER	Rapid Entrepreneurship Delegation
VPD	Plant Protection Directorate
ECOWAP	ECOWAS Agricultural Policy
ERO	Rice ECOWAS Observatory
TWG	Technical Working Group
NPI	National Institute of Pedology
ISRA	Senegalese Institute of Agricultural Research
AML	The Agricultural Bank
M&E	Monitoring and Evaluation
NGO	Non-Governmental Organization
PANIR	National Investment Action Plan for Rice
RRR	Regional rice roadmap
SAED	National Company for the Development and Exploitation of the Lands of the Senegal River Delta and the Senegal River and Falémé River Valleys
NRDS	National Rice Development Strategy
SODAGRI	Agricultural and Industrial Development Company of Senegal
SRI	Rice intensification system
ICT	Information and communication technologies
VFS	Senegal River Valley

Executive Summary

In Senegal, households' preference for rice is clear compared with other staple cereals, as reflected in an estimated consumption of 78.1 kg/head/year. However, local rice production only partially covers needs, and deficits are still offset by imports despite the country's potential.

Faced with this situation, the State of Senegal set the objective of achieving rice self-sufficiency in its National Strategy for the Development of Rice Cultivation, first in 2012 and then in 2017. Although self-sufficiency has not yet been achieved, significant efforts have resulted in the production of 5,788,385 tons of paddy, valued at 723,548,124,606 CFA francs, and stabilised imports at approximately 960,000 tons over a ten-year period despite population growth.

The National Strategy for the Development of Senegalese Rice Cultivation (SNDR 2020–2030) sets a new objective of doubling 2018 production levels by 2030, using the RICE (Resilience, Industrialisation, Competitiveness, Employment) approach. The National Rice Investment Action Plan (PANIR/NRIAP), derived from Senegal's SNDR and the ECOWAS Regional Rice Roadmap (2025–2035), aims to ensure the country's medium-term self-sufficiency in rice and enable exports to sub-regional and international markets by 2035.

The major challenges the NRIAP must address include increasing production capacities, improving access to production factors, accelerating the adoption of technological packages, mobilising a qualified workforce, intensifying national rice production, developing research-action and extension, and adapting to climate change.

With a total cost of approximately 1,535,204,488,214 CFA francs (2.5 US\$bn), financing will be provided by the State, technical and financial partners, NGOs and development associations, grassroots communities, and the private sector.

By 2030, the NRIAP will deliver:

- Increase national production of white rice to 2,000,000 tonnes (equivalent to 3,400,000 tonnes of paddy).
- Significantly reduce rice imports (currently ~900,000 tonnes) by covering the majority of national consumption with local production.
- Improve yields to 8.7 t/ha in irrigated areas and 4.5 t/ha in rainfed areas.
- Develop 25,000 ha in the Senegal River Valley, 9,000 ha in Anambé/Gouloumbou basins, and 145,190 ha in rainfed areas.
- Construct 6,700 km of production tracks and 488 storage warehouses.
- Improve the livelihoods of smallholder farmers, with strong emphasis on women and youth inclusion.



Table 1: Summary of Priority Actions for Senegal's Rice Sector Transformation for the Year 2026-2035

Action	Activities	Estimated Cost (FCFA x 1,000,000)	Estimated Cost (US\$ bn)	Cost Share (%)	Financing Sources	Timeline	Expected Results / Outcomes
1. Sustainably Increase Rice Production to Meet Local Demand	1.1 Water control (development & rehabilitation of irrigated and rainfed areas). 1.2 Control of production factors (seeds, fertilisers, phytosanitary products). 1.3 Modernisation of rice cultivation (mechanisation). 1.4 Climate-smart hydro-agricultural management. 1.5 Climate warning systems and sustainable water management.	1,248,053.7	2.08	81.3%	State budget, DFIs, climate finance, PPPs, World Bank, AfDB, IFAD	2026-2035 (frontloaded Years 1-5)	25,000 ha developed in VFS; 145,190 ha in rainfed; 22,000 ha rehabilitated; yields of 8.7 t/ha (irrigated) and 4.5 t/ha (rainfed) by 2030; real-time hydrometeorological monitoring operational; increased women and youth access to irrigated plots.
2. Produce Quality and Competitive White Rice	2.1 Promote an efficient paddy processing system. 2.2 Support paddy marketing (tracks, warehouses). 2.3 Support the competitiveness of local rice. 2.4 Regional market development strategy. 2.5 Agricultural risk management mechanisms. 2.6 Establish a rice development fund.	271,269.0	0.45	17.7%	Private investment, DFIs, blended finance, State, development partners	2026-2030	70% of paddy mechanically hulled domestically (60% in modern mills); 75 rice mills upgraded; 6,700 km tracks constructed; 488 storage warehouses built; local rice certified and present in 3+ ECOWAS markets; significant reduction in informal imports.
3. Strengthen Action Research and Stakeholder Capacities	3.1 Support research-action (new varieties, technology dissemination, mechanisation adaptation). 3.2 Support organisation of TRC actors (CACs, capacity building, women and youth inclusion).	15,536.8	0.03	1.0%	Public funding, donor support, ISRA, AfricaRice, ANCAR partnerships	2026-2035	New climate-smart varieties popularized; 100+ CACs created; research-extension linkages strengthened; women and youth empowered across the value chain; 1,500+ agribusiness entrepreneurs supported.

4. Coordination of the Action Plan	4.1 Operationalize the National Rice Observatory (ONAR). 4.2 Hold regular coordination meetings. 4.3 Monitoring, evaluation and audit. 4.4 Periodic reviews of plan implementation.	345.0	< 0.01	0.02%	Public funding, State budget, development partner support	2026-2035	Functional ONAR Senegal operational; quarterly coordination reviews conducted; ECOWAS KPIs adopted and tracked; effective M&E and external audit system in place; full ERO reporting compliance achieved.
Total Investment Requirement (to 2030)		1,535,204.5	2.56	2026-2035			

I.0 Introduction

I.1 Current state of the rice sector

Rice is the second-largest cereal produced in the world, but only 6–10% of annual production enters the international market. In Senegal, household preference for rice is clearly the first option among staple cereals, with consumption shares that are the majority in both urban (77%) and rural (59%) areas. This is reflected in the widespread choice of rice for lunch by the majority of households (source: IPAR, 2018).

This predominance is reflected in an average annual per capita consumption of 78.1 kg nationally, with per capita averages of 76.6 kg in urban areas and 80.9 kg in rural areas. Local rice is consumed by the majority of households in both urban (55%) and rural (62%) areas. Broken rice is also widely used among households that consume both local and imported rice.

Rice production in Senegal was estimated at 1,525,464 tons in 2023, representing 38% of cereal production. This increase is mainly driven by upland rice production, while irrigated rice production in the Senegal River Valley remains stable. Despite this progress, supply does not yet cover demand. In the Senegal River Valley, only 67,299 ha are currently under cultivation out of 130,000 ha developed (within an irrigable potential of 240,000 ha). Average yields fluctuate between 5.5–6 t/ha in irrigated areas and 2–3 t/ha in rainfed cultivation, far below the varietal potential of 9–12 t/ha for irrigated and 6 t/ha for rainfed cultivars.

Various government programs, including PRACAS, PNAR, and the Cereal Corridor, have driven improvement, but have not yet achieved self-sufficiency. It is therefore imperative, given rice's centrality to food security, to treat it as a national development priority.

I.2 Problem statement

In Senegal, despite significant progress in recent years, the rice sector still faces multiple constraints. These include the predominance of traditional production methods, limited access to quality inputs, insufficient mechanization, and difficulties related to irrigation, financing, and marketing. All these factors hinder the development of local rice and limit the impact of investments made.

Common challenges include inadequacies in facility quality, seed quality, water management, equipment levels, access to production areas, storage, harvesting, processing, and low levels of organisation among producers.

In a context marked by the inadequacy of State resources to meet the sector's development needs, the mobilization of investments through a public-private partnership logic becomes a strategic priority. The outlook is rooted in continuing NRDS implementation, significantly increasing funding, and accelerating the pace of execution.

I.3 National Rice Policy

Since the 1980s, the Senegalese government has put in place policies aimed at reducing dependence on imports and strengthening domestic production. These measures include subsidies for fertilizers and agricultural equipment, easier access to improved seeds, free support and advisory services,



rehabilitation of hydro-agricultural infrastructure, and the creation of access roads to production areas.

From 2014 onwards, with the technical support of the Coalition for the Development of Rice in Africa (CARD), Senegal has been implementing the National Rice Development Strategy, including the 2020–2030 Coalition. The National Strategy for the Development of Rice Cultivation (SNDR 2020–2030) and the National Rice Self-Sufficiency Program (PNAR) aim to achieve self-sufficiency by 2030.

Key policy priorities include rice self-sufficiency and import substitution; productivity enhancement through seed, irrigation, and mechanization; private-sector-led processing and agro-industrial clustering; and climate-smart agriculture practices aligned with ECOWAS regional frameworks.

I.4 Stakeholder analysis

The national investment action plan is primarily driven by the actors involved in the rice sector. These are classified as direct and indirect actors.

The direct actors in the rice sector in Senegal are grouped in three major colleges:

- The Producers' College : Made up of all producers regardless of level of organisation. Small producers (< 1 ha in rainfed areas, up to 5 ha on irrigated perimeters) account for ~90% of rice farmers and contribute ~70% of global rice production. Large producers have farms of 5–20+ ha organised into cooperatives. Key organisations include CPC, MAPTO, RNPSC, and CTOP.
- The Processors' College : Made up of industrial rice growers and artisanal shellers. Processing service providers range from large modern units to small mills. Processors are now grouped within an interprofessional council (CIRIZ) to promote standards, traceability, and market development.
- The Traders' College : Composed of operators involved in local rice trade, including wholesalers, semi-wholesalers, and retailers. Wholesalers and semi-wholesalers operate formal structures contracting with mostly informal sector retailers.

Indirect actors include state services (ISRA, ANCAR, DPV, SAED, SODAGRI), NGOs, financial institutions (AMLA, DER, BNDE, microfinance institutions, LOCAFRIQUE, CNAAS), political decision-makers, consumers, and technical and financial partners (World Bank, IFAD, AfDB, FAO, GIZ, etc.).

A comprehensive stakeholder mapping guides NRIAP implementation, ensuring structured investment frameworks that support private-sector participation and leverage existing coordination platforms.

I.5 Justification for Increased Investment in Rice Value Chains

The Senegalese rice sector is a pillar of food security and rural development. With continued investments in irrigation, mechanization, infrastructure, and public policies, Senegal aims to reduce its dependence on imports and achieve rice self-sufficiency by 2030, while strengthening employment and the socio-economic role of the sector.

Specific justifications for increased investment include:

- Substituting imports with local production eliminates a significant annual import burden, conserving scarce foreign exchange and strengthening economic resilience.
- Rice is central to food security; ensuring a stable, affordable supply for a population projected to reach 22.3 million by 2030 is a strategic priority.



- The rice sector has high employment multipliers, from on-farm labour to logistics, processing, packaging, and services, with clear opportunities for women and youth.
- Upgrading rice value chains stimulates linked sectors (fertilizer, machinery, logistics, packaging, digital services) and drives wider structural transformation.
- Climate-aligned investments in irrigation, seed, and digital MRV systems can unlock climate finance and improve resilience to shocks.

I.6 Plan of Action

The following sections detail four integrated Investment Actions that span the entire rice value chain, from production and water management to processing, market access, research, and innovative finance structures. Together they provide a comprehensive roadmap for investors and development partners to drive sector transformation and achieve Senegal's rice self-sufficiency objectives.



2.0 Vision, Goal, and Objectives

2.1 Vision

Ensure food sovereignty in rice in the short term and release a security stock in the medium and long term

This vision aligns with national aspirations to make Senegal self-sufficient in rice, ensuring that domestic output meets and exceeds national demand while empowering farmers, processors, and agribusiness actors across the value chain

2.3 Goals and Objectives

The overall objective of the NRIAP is to contribute to a sustainable increase in the national production of rice in quantity and quality to meet the needs and requirements of consumers. Specific objectives include:

- **Self-sufficiency** : Increase national production of white rice to 2,000,000 tonnes (equivalent to 3,400,000 tonnes of paddy) by 2030, meeting the needs of a population of approximately 22.3 million inhabitants.
- **Productivity Enhancement** : Raise yields from current averages (5.5–6 t/ha in irrigated, 2–3 t/ha in rainfed) to 8.7 t/ha and 4.5 t/ha respectively, through improved varieties, fertilisation, mechanization, and water management.
- **Processing and Value Addition** : Ensure that 100% of paddy rice is mechanically hulled domestically, including 70% by modern rice mills (of which 60% by modern facilities in irrigated zones) by 2030.
- **Jobs, Income, and Inclusion** : Create additional jobs across the value chain, with strong support for women and youth, and raise smallholder net incomes via higher yields, reduced losses, and improved market access.
- **Macroeconomic and Fiscal Impact** : Drastically reduce rice imports (currently ~900,000 tonnes), improve the trade balance, and strengthen food price stability.
- **Value Chain Development** : Set up a quality label and certification framework to ensure rice on the market is processed, fortified, and branded locally.
- **Climate Resilience and Sustainability** : Increase irrigated rice area and climate-smart practices to ensure production stability under changing weather conditions.



3.0 Action Plan

This investment plan presents a strategic, integrated, and scalable roadmap for building on existing projects and transforming Senegal's rice sector. It aims to deliver significant economic, social, and food security outcomes while aligning closely with Senegal's national priorities (SNDR 2020–2030, PNAR) and the ECOWAS Regional Rice Development Strategy.

Action I : Sustainably Increase Rice Production to Meet Local Demand

This action focuses on transforming production capacity into the foundational driver of year-round, climate-resilient rice production in Senegal through a multi-track approach combining development of new irrigated and rainfed areas, rehabilitation of existing schemes, control of production factors, modernization of cultivation practices, and climate-smart adaptation. With only 67,299 ha currently under cultivation out of a 240,000-ha irrigable potential in the Senegal River Valley, limited year-round production remains a binding constraint on paddy supply and value chain profitability.

Sub-Action I.1: Ensuring Water Control

This sub-action covers: developing 25,000 ha in the Senegal River Valley (VFS) and 9,000 ha in the Anambé and Gouloumbou basins; developing 145,190 ha in rainfed areas; rehabilitating 22,000 ha in the VFS and 4,000 ha in the Anambé basin; maintaining hydro-agricultural facilities, irrigation canals and hydraulic axes across all ecologies; and protecting rice-growing plots in rainfed areas. Estimated budget: 592,689.8 million CFA francs.

Sub-Action I.2: Ensuring Control of the Factors of Production

This sub-action addresses access to quality inputs, seeds, fertilisers, and phytosanitary products. It includes rehabilitating and equipping seed sorting centres and ISRA production stations, rehabilitating cold rooms, producing basic and pre-basic seeds, and providing phytosanitary products and fertilisers at affordable prices and within required timelines. Key targets: 20,000 t of R1/R2 seed for irrigation, 28,736 t for rainfed; supply of urea, NPK, DAP and plant protection products at the required scale. Estimated budget: 565,146.3 million CFA francs.

Sub-Action I.3: Supporting the Modernization of Rice Cultivation

This sub-action accelerates mechanization to enable crop intensification, compliance with the crop calendar, and improvement of rice quality. Targets include increasing ploughed area from 5% to 60% for rainfed and 100% for irrigation by 2030. Equipment needs include motor pumps, electric pumps, solar pumps, tractors with offsets and trailers, houssines, balers, mowers, ploughs, and transplanters across the VFS, Anambé Basin, and rainfed zones. Estimated budget: 85,927.7 million CFA francs.

Sub-Action I.4: Integrating Climate-Smart Approaches into Hydro-Agricultural Management

This sub-action reconciles sustainable water management with increased agricultural productivity and adaptation to climate change. Activities include protection works (reforestation, contour lines) upstream and downstream to reduce erosion, and the active involvement of local actors in diagnosis and implementation to guarantee ownership and sustainability. Estimated budget: 770.0 million CFA francs.



Sub-Action 1.5: Strengthening Climate Warning Systems and Sustainable Water Management

This sub-action establishes a climate early warning system and sustainable water management framework. Activities include: improving real-time data collection via hydrometeorological stations, sensors, and satellite images integrated with artificial intelligence; ensuring timely information dissemination to local populations, especially the most vulnerable; and facilitating collaboration between local actors for balanced resource sharing. Estimated budget: 3,520.0 million CFA francs.

Action 2: Produce Quality and Competitive White Rice

This action focuses on closing Senegal's processing and quality gap by promoting efficient paddy processing, supporting paddy marketing infrastructure, enhancing the competitiveness of local rice, integrating regional market development, implementing agricultural risk management mechanisms, and establishing a rice development fund. While processing capacity has expanded since the first NRDS phase, quality inconsistency, high energy costs, and a fragmented marketing infrastructure limit competitiveness against imported rice.

Sub-Action 2.1: Promoting an Efficient Paddy Processing System

This sub-action improves processing technology across 79 rice mills and 35 shelling units in the VFS, and deploys threshers, shellers, mini rice mills, and combine harvesters across all ecologies. Key targets: 70% of produced quantities mechanically hulled (including 60% in modern rice mills for irrigated); 60% of rainfed production machine-hulled. Estimated budget: 112,079.0 million CFA francs.

Sub-Action 2.2: Supporting Paddy Marketing

This sub-action supports development of paddy marketing through opening up production areas and improving storage conditions. Activities include construction of 1,700 km of tracks in irrigated areas and 5,000 km in rainfed zones, and construction of 488 storage warehouses (259 in VFS, 29 in Anambé, 200 in rainfed zones) by 2030. Estimated budget: 151,700.0 million CFA francs.

Sub-Action 2.3: Supporting the Competitiveness of Local Rice

This sub-action addresses competitiveness through solarization to reduce energy bills, improving connectivity between production and marketing areas, facilitating access to spare parts for processing units, promoting rice ranges for specific market niches (aromatic rice, parboiled rice), continuing incentive measures on duties and taxes on imported rice, and strengthening labelling of local rice. Estimated budget: 4,650.0 million CFA francs.

Sub-Action 2.4: Integrating a Regional Market Development Strategy

This sub-action integrates the Senegalese market into regional markets (particularly WAEMU countries), reaching at least 400 million consumers. Activities include standardizing harvesting, drying, storage, and packaging techniques with ECOWAS, strengthening regional certification of products, and promoting Senegalese rice for export. Estimated budget: 510.0 million CFA francs.

Sub-Action 2.5: Implementing Agricultural Risk Management Mechanisms

This sub-action promotes production and management of scientific/technical knowledge for risk decision-making, strengthens operational risk management systems, and promotes contract farming and the Matching Funds for Inclusive Rice Enterprises (a strategic mechanism financing inclusive rice



businesses by encouraging private investment while integrating smallholder producers). Estimated budget: 300.0 million CFA francs.

Sub-Action 2.6: Establishing a Rice Development Fund

This sub-action establishes a rice development fund/window to facilitate access to credit for producers for production, equipment acquisition, construction of conservation and storage infrastructure, processing and marketing of rice products. The fund is fed by State grants, technical and financial partner contributions, and private sector contributions. Financing mechanisms include counterpart grants for equipment and developments, campaign credits for seeds and pesticides, and subsidized credit access for cooperatives via partner banks. Estimated budget: 2,030.0 million CFA francs.

Action 3: Strengthen Action Research and Stakeholder Capacities

This action promotes research and development and supports the organization and technical capacity of actors to ensure empowerment, a guarantee of sustainability. It combines upstream investment in new variety development, technology dissemination, mechanization adaptation, and organizational strengthening of the rice value chain (TRC) actors.

Sub-Action 3.1: Supporting Research-Action

This sub-action invests in research structures to: popularize new varieties and produce suitable pre-basic seeds; adapt and disseminate rice production techniques, soil fertility management, water management, and pest management; adapt and popularize existing innovative technologies (RiceAdvice/WeedManager, PPU, SRI, GIR, floating stations, contractual arrangements); conduct demonstration units; develop and adapt mechanization on AHAs; recruit sufficient staff for research and advisory support; strengthen the capacity of consultation frameworks including SNRASP; and systematize contracting between value chain actors. Estimated budget: 2,135.0 million CFA francs.

Sub-Action 3.2: Supporting the Organization of TRC Actors

This sub-action revitalizes producer organizations and the interprofession, and sets up community agricultural cooperatives (CACs) in the TRC. Activities include raising awareness among actors of opportunities and responsibilities, revitalizing umbrella organizations, creating at least 100 CACs, strengthening technical capacity across value chain links, building the technical, organizational, administrative, and financial capacities of the inter-branch organization, and strengthening the empowerment and integration of women and youth along the value chain. Estimated budget: 13,401.7 million CFA francs.

Action 4: Coordination of the Action Plan

This action strengthens effectiveness in mobilizing necessary resources and ensures coherent and concerted implementation of interventions for the investment plan by 2030. It covers operationalizing the national rice observatory, holding regular coordination meetings, monitoring and evaluation, and conducting periodic reviews.

Sub-Action 4.1: Operationalize the National Rice Observatory (ONAR)

This sub-action strengthens ONAR's capacity to better manage sector actions through: providing the Senegalese ONR and technical structures with adequate infrastructure and equipment; strengthening the secretariat's capacity for data collection, monitoring, and observation; strengthening



communication channels between ERO and local ecosystems through national chapters and technical partners; and training experts in project management and implementation. Estimated budget: 90.0 million CFA francs.

Sub-Action 4.2: Hold Regular Coordination Meetings

This sub-action ensures regular multi-stakeholder coordination to review implementation of production, processing, and marketing forecasts. Quarterly meetings are planned to review progress against targets. Estimated budget: 20.0 million CFA francs.

Sub-Action 4.3: Monitoring, Evaluation and Audit

This sub-action implements a robust M&E system including: establishing an external audit system to review accounts and expenditure management; monitoring and evaluating the plan's actions; adopting ECOWAS Key Performance Indicators (KPIs) for rice monitoring; and conducting periodic reviews on the implementation of various measures. Estimated budget: 235.0 million CFA francs.



Table 2: Summary of National Rice Action Plan

Action	Activities & Description	Estimated Cost (US\$ bn)	Estimated Cost (FCFA x 1,000,000)	Cost Share (%)	Expected Outcomes
Action 1: Sustainably Increase Rice Production to Meet Local Demand	1.1 Water control (development & rehabilitation of irrigated and rainfed areas) 1.2 Control of production factors (seeds, fertilisers, phytosanitary products) 1.3 Modernization of rice cultivation (mechanisation) 1.4 Climate-smart hydro-agricultural management 1.5 Climate warning systems and sustainable water management	2.08	1,248,053.7	81.29%	25,000 ha developed in VFS; 145,190 ha in rainfed; 22,000 ha rehabilitated; yields of 8.7 t/ha (irrigated) and 4.5 t/ha (rainfed) by 2030
Action 2: Produce Quality and Competitive White Rice	2.1 Promote an efficient paddy processing system 2.2 Support paddy marketing (tracks, warehouses) 2.3 Support the competitiveness of local rice 2.4 Regional market development strategy 2.5 Agricultural risk management mechanisms 2.6 Establish a rice development fund	0.45	271,269.0	17.67%	75 rice mills improved; 488 warehouses built; 6,700 km of tracks constructed; local rice certified and present in ≥3 ECOWAS markets
Action 3: Strengthen Action Research and Stakeholder Capacities	3.1 Support research–action (new varieties, technology dissemination, mechanisation adaptation) 3.2 Support organisation of TRC actors (CACs, inter-professional capacity building, women and youth inclusion)	0.03	15,536.8	1.01%	New climate-smart varieties popularized; 100+ CACs created; research-extension linkages strengthened; women and youth empowered in TRC
Action 4: Coordination of the Action Plan	4.1 Operationalize the National Rice Observatory (ONAR) 4.2 Hold regular coordination meetings 4.3 Monitoring, evaluation and audit	< 0.01	345.0	0.02%	Functional ONAR Senegal; quarterly reviews conducted; ECOWAS KPIs adopted; effective M&E and audit system in place
TOTAL INVESTMENT REQUIREMENT (to 2030)		2.56	1,535,204.5	100%	

4.0 Financing Strategy

4.1 Cost Estimates of the Investment Plan

The total estimated cost of implementing Senegal's National Rice Investment Action Plan (NRIAP) is 1,535,204,488,214 CFA francs (approximately 1,535,204.5 million CFA francs) over 2026–2030, with a focus on four priority actions to achieve rice self-sufficiency. These estimates are derived from unit costs for infrastructure rehabilitation, equipment deployment, capacity building, and operational scaling, benchmarked against similar projects in the West African region. A detailed, year-by-year budget breakdown is provided in Annex I.

Table 3: Summary of Indicative Budget for the Implementation of the National Rice Action Plan¹

Key Action	Estimated Cost (US\$ bn)	Estimated Cost (x 1,000,000)	Timeframe	Cost Share (%)
Action 1: Sustainably increase rice production to ensure local demand is met	2.08	1 248 053,7	2026-2030	81.29%
Action 2: Produce quality and competitive white rice	0.45	271 269,0	2026-2030	17.67%
Action 3: Strengthen action research and stakeholder capacities	0.03	15 536,8	2026-2030	1.01%
Action 4: Coordination of the sector.	< 0.01	345,0	2026-2030	0.02%
TOTAL INVESTMENT REQUIREMENT (5 Years)	2.56	1 535 204,5	2026-2030	100.00%

4.2 Sources of funding: public budget, private sector, and donors

Funding will be mobilized through a balanced mix of public budgets, private investments, and development partner contributions, leveraging each source's proven track record in Senegal's rice value chain. This approach ensures sustainability by aligning with ongoing or past projects for credibility and continuity.

- **State Financing (Own Resources):** Annual multi-annual budget allocations for agriculture; budget allocations from related Ministries; tax incentives; exemptions; direct subsidies.
- **External Financing:** Donations, loans, and TFP projects and programmes from bilateral partners (France, Japan, India, Korea, China, Netherlands) and multilateral partners (World Bank, EU, IDB, AfDB, EDF, GEF, FAO, GIZ).

¹ Diagnostics/feasibility peak early to unlock procurement-ready designs, safeguards, and sequencing across basins/clusters (especially irrigation, mills, and corridors). For heavy civil works, rehabilitation typically mobilizes over 2–3 years, peaks mid-programme, then tapers as schemes are commissioned, and O&M regimes take over. Technology rollouts - small-scale irrigation, mechanization fleets, and digital registries follow an adoption curve of rapid scale early in priority belts, then taper to expansion/refresh. Standards, branding, corridor competitiveness are most effective once supply, quality, and aggregation systems are strong enough to sustain formal trade and premium market positioning. RSIF early years focus on structuring + first close; mid years scale equity/mezzanine + guarantees; later years sustain the portfolio and recycle capital.

- Private Sector Investment: PPP support arrangements; financial credits from banks and microfinance institutions; corporate agribusiness investment.
- Financial Contributions from Farmers and Cooperatives: Financial resources for production, small-scale processing, and cooperative co-financing of equipment and storage.

4.3 Funding Gaps and Financing Scenarios

Financing by bilateral and multilateral partners has been on a strong downward trend in recent years due to an unfavourable international context. The State faces multiple development challenges, and private sector financing of the rice sector has been insufficient. The ideal scenario is to dedicate global funding to the NRDS and develop all necessary mechanisms to mobilize the required resources by 2030.

Three financing scenarios are proposed:

- Structured Finance and PPPs (Agropole Scenario): Mobilising via PPPs for agropoles (Vallée du Fleuve, Niayes); setting up guarantee funds (FOGARISE type) to encourage banks to finance production and processing.
- Green Financing and Resilience (Sustainability Scenario): Using the Green Climate Fund to finance rice adaptation (irrigation, resistant seeds); leveraging climate finance mechanisms for sustainable production.
- Resource Mobilization Levers: The National Agro-Sylvo-Pastoral Development Fund (FNDASP); the Northern Agro-Industrial Processing Zone (PZTA-North) agropole project; and contract farming linking producers and processors to facilitate bank credit access.

A round table must be organized with all donors to present the investment plan. The Ministries of Agriculture, Budget, Planning, Finance, Energy, Water and Sanitation, and Industry all have a major role to play in resource mobilization.

4.4 Investment Readiness and Bankable Projects

Since the last phase, work has continued in the various sectors of activity with dedicated structures.

- **Developments:** In irrigated areas, SAED and SODAGRI continue to carry out developments, maintain and rehabilitate them. In rainfed areas, NGOs, projects and programmes support the implementation of development in the valleys, the construction of water retention dikes and anti-salt dikes in collaboration with the decentralised technical services of the State. Projects exist in this direction to be able to cover needs.
- **Access to inputs:** The State, NGOs, TFPs, ISRA, Africa Rice, the private sector, SAED, SODAGRI... are working to facilitate access to inputs for producers. The needs are significant and recurrent. Funding is ongoing and must be repeated every year, every season
- **Access to equipment:** The State, NGOs, TFPs, the private sector, SAED, SODAGRI, etc. are working to facilitate access to equipment for producers and processors. The needs are great. Funding is ongoing and the equipment must be renewed after a few years.
- **Research and advisory support:** This is an important area that must be supported financially on an ongoing basis to ensure satisfactory performance of the rice sector. Funding must be secured throughout the implementation of the NRDS.
- **Placing local rice on the market:** If local rice does not penetrate the national consumption market, it will be a wasted effort. This will discourage all the actors of the TRC. Thus, every



effort must be made to ensure that the activities planned in this direction are continuously financed and executed so that the majority of consumers adopt local rice.



5.0 Implementation Arrangements

5.1 Operationalisation of the investment priorities

Operationalisation will follow a programme-based approach, with each investment area implemented through multi-year programmes supported by annual and rolling 3–5-year work plans, clear outputs and performance indicators, and costed schedules aligned with the national budget cycle. Implementation will be sequenced by readiness, distinguishing shovel-ready investments, bankable projects requiring limited upstream work, and early-stage concepts requiring feasibility or piloting.

The Master Plan identifies five priority areas: (i) improving access to inputs; (ii) improved access to equipment; (iii) strengthening of hydro-agricultural developments; (iv) construction of storage warehouses; and (v) construction of production tracks. These interventions are designed to achieve rice self-sufficiency by 2030.

Implementation instruments include:

- Structuring public investments: Realization of hydro-agricultural facilities and production/marketing infrastructures; support for training, research, and dissemination of new technologies; capacity building of structures in charge of standards and quality.
- Targeted incentives: Mechanization promotion incentives, installation of processing units and agricultural inputs (tax exemption, import exemption, adequate subsidy, subsidized credit rates, reduced energy costs); institutional purchasing; reduction of imports; and specific support policies for smallholder farmers (women, youth, people with disabilities).
- Legal and institutional reforms: Various reforms provided for in agricultural policy to improve the business climate in the agricultural sector, ensuring inclusive development and encouraging private investment through PPPs.

5.2 Coordination Mechanisms

Due to the importance and complexity of the rice sector, NRIAP implementation will be carried out through programs and projects executed by the State, technical and financial partners, and rice sector actors. Implementation is based on principles of consultation between actors and their accountability in relation to sector functioning. An annual evaluation will be instituted to correct any malfunctions in time. The governance of the NSDR is articulated around three bodies:

Table 4: Coordination Structures and Their Roles

Structures/Frameworks	Mandates/Missions	Composition
Steering body (Interministerial Committee extended to TFPs)	Orientation and steering of the NSDR in setting strategic objectives	Ministers of Agriculture, Food Sovereignty, Livestock, Energy, Water and Sanitation, Infrastructure, Technical and Financial Partners, Social Partners
Technical Consultation Body (Executive Actors)	A body for coherence, harmonization of interventions, pooling of resources, sharing of good practices	Executing agencies, projects and programmes for the implementation of activities contributing to the achievement of objectives

Permanent Secretariat (NSDR Coordination Unit)	Centralized monitoring and evaluation of public resources for the benefit of the rice value chain. Ensures priorities in AWPPs of implementing agencies are consistent with NSDR objectives	Multidisciplinary team with proven expertise in rice farming, development, monitoring and evaluation, computer science and rural sociology
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5.3 Coordination with private sector and development partners

The agricultural sector mobilizes a diversity of actors essential for implementation. The public sector occupies a central place in the rice value chain and plays a crucial role at all links. This coordination takes place at international, national, regional, and local levels.

Engagement with the private sector will be structured through: biannual public-private investment forums; PPPs in irrigation, mechanization, processing, and digital infrastructure; contract farming and aggregation models that link farmers to markets; and joint quality assurance programmes aligning millers, input suppliers, and regulators.

Development partner coordination will focus on aligning donor programmes to NRIAP priorities, co-financing infrastructure and systems, and conducting joint technical missions and annual reviews to harmonize approaches, avoid duplication, and streamline reporting.

Key institutions to be mobilized include: public sector (SAED, SODAGRI, DRDR, Plant Protection, INP, ISRA); private sector (suppliers, service providers, design offices); producers, processors, traders, transporters, NGOs, financial institutions, consular chambers, universities and institutes, local authorities; and technical and financial partners.

5.4 Implementation Timeline and Phasing

Implementation will be phased across three periods. In the short term (2026–2027), the emphasis will be on diagnostics, pilots, rapid rollout of irrigation systems, strengthening the seed system, initial processing upgrades, digital platform design, and establishing the Rice Development Fund. The medium term (2028–2030) will focus on scaling infrastructure, processing clusters, trade corridors, national data systems, and financing across all rice-producing ecologies. The long term (2031–2035) will consolidate nationwide coverage, integrated value-added clusters, regional market penetration, advanced digital analytics, and sustained mobilization of private capital.

Table 5: Summary of Implementation Timeline and Phasing

Investment Area / Priority Action	Short Term (Years 1–2) 2026–2027	Medium Term (Years 3–5) 2028–2030	Long Term (Years 6–10) 2031–2035	Lead Agency
Action I: Climate-Resilient Production & Water Control	Diagnostics; pilot irrigated developments; rapid deployment of solar pumps; seed system baseline	Large-scale irrigation rehabilitation; expansion of rainfed areas; mechanization scale-up; seed system strengthening	National irrigation consolidation; climate-smart water management mainstreamed; full mechanization coverage	Ministry of Agriculture / SAED / SODAGRI / PNAR

Action 2: Processing, Quality & Market Access	Diagnostics of mills and processing units; priority mill upgrades; tracks and warehouses pilot construction; branding framework launch	Scale processing cluster upgrades; full track and warehouse construction; ECOWAS SPS compliance; trade corridor pilots	Fully integrated value-added clusters; regional market penetration; national quality certification operational	Ministry of Agriculture / PNAR / Colleges of Processors & Traders
Action 3: Research & Capacity Building	Expand breeder seed production; launch demo hubs and GAP training; strengthen advisory structures	Large-scale technology dissemination; hybrid adoption; capacity building of TRC actors; 100+ CACs created	Sustained varietal replacement cycles; full research-extension linkage; empowered women and youth in value chain	ISRA / AfricaRice / ANCAR / Universities
Action 4: Coordination & M&E	Establish ONAR; launch coordination meetings; design M&E system; adopt ECOWAS KPIs	Full ONAR functionality; quarterly reviews; annual sector reports; external audits	AI-driven analytics; full ECOWAS reporting compliance; real-time coordination dashboard operational	Permanent Secretariat / Ministry of Agriculture

5.5 Capacity Needs and Support

Successful implementation requires targeted capacity strengthening at institutional, technical, and farmer levels:

- **Rice Producers:** Capacity building on agricultural production techniques, integrated pest management, sustainable land management, integrated water resources management, adoption of new technologies and rice varieties, maintenance of facilities and water axes, and organisational/institutional development of EIGs, CACs, and producer umbrella organizations.
- **Processors:** Capacity building on agro-industrial processing standards, equipment upkeep and maintenance, labelling, standardized processing processes, stock management, quality control, modern parboiling techniques, marketing, packaging, standards, and traceability.
- **Retailers and Distributors:** Capacity building on storage, stock and quality management, and contracting with other actors.
- **Research and Technical Support Structures:** Capacity building in production of new technologies, new varieties, and extension; support in development of new climate-smart varieties; technical staff recruitment/strengthening; provision of research and extension equipment and digitalisation tools; and strengthening of certification and quality control laboratories.

Support needs span four dimensions:

- **Institutional Support:** Facilitate land access via ZAAP and rice-growing perimeters; set up a secure contractual framework between producers, processors, and traders; revitalise rice interprofessional links; facilitate standardisation and certification (standards, labels, traceability).



- **Financial Support:** Establish pre-financing mechanisms for agricultural inputs; set up lines of credit, agricultural guarantee and insurance funds; implement tax incentive mechanisms through tax reforms; and provide mechanisms for access to agricultural credit via microfinance and banks.
- **Technical and Technological Support:** Support research and innovation; provide access to high-performance climate-smart varieties; develop lowlands and irrigated perimeters; ensure water control by production area; construct/rehabilitate storage, conservation, and marketing infrastructures; and build agro-industrial processing infrastructures.
- **Digitalization:** Set up a rice market information system; deploy applications for traceability, group purchasing, and management; and establish a cash-out application for distribution of agricultural inputs.

5.6 Resource Mobilization Strategy

The resource mobilization strategy aims to mobilize in a sustainable, diversified, and coordinated manner the financing necessary to support planned investments in production, processing, and marketing of local rice. Resource mobilization is based on four pillars:

- **Internal Source:** Public funding from State and national institutions; NGO contributions; national program co-financing.
- **External Source:** Bilateral and multilateral financing in the form of debt and grants from Senegal's usual partners (France, Japan, India, Korea, China, Netherlands; World Bank, EU, IDB, AfDB, EDF, GEF, FAO, GIZ).
- **Private Sector Contributions:** Promotion of private investment and PPPs; engagement of agribusiness in processing, equipment, and marketing infrastructure.
- **Innovative Financing Mechanisms:** Climate finance instruments (Green Climate Fund); blended finance facilities; guarantee funds (FOGARISE-type); the Rice Development Fund; ECOWAS regional blended finance platform integration.

Resource mobilization work will be carried out with full efficiency through a dedicated round table with all donors to present and validate the investment plan, with active engagement from the Ministries of Agriculture, Budget, Planning, Finance, Energy, Water and Sanitation, and Industry.

5.7 Communication Plan

The communication plan mobilizes stakeholders, ensures transparency, and promotes the support of financial and institutional partners. The objective is to raise awareness of the NRDS and NRIAP, promote their adoption by all actors, and mobilize sufficient resources for implementation.

Key communication actions include:

- The official launch of the plan.
- Dissemination of information on good investment practices and opportunities.
- Agricultural shows, open days, and round tables.
- Technical workshops and training sessions.

Communication tools include: digital media (advertisements, promotional sessions, demonstrations, influencers); physical media (guides, brochures); social networks; television; radio; posters and radio spots; and the digital monitoring and documentation platform. New information and communication technologies will be fully integrated to maximize outreach.



6.0 Conclusion

Rice is one of Senegal's most critical staple foods, consumed by nearly every household and closely linked to food security, inflation, social stability, and poverty outcomes. Today, the country continues to import hundreds of thousands of tonnes of rice annually — exporting jobs and foreign exchange, and remaining vulnerable to external price shocks.

This National Rice Investment Action Plan (NRIAP) constitutes an ambitious and realistic structuring framework that can enable Senegal to achieve rice self-sufficiency by 2030. Based on the country's agro-ecological potential, strong political will, the National Rice Development Strategy, and the regional orientations of ECOWAS, this plan proposes a profound and sustainable transformation of the rice value chain.

With a total financing envelope of 1,535,204,488,214 CFA francs, the NRIAP provides an opportunity to transform vulnerability into opportunity by:

- Scaling up productivity to 8.7 t/ha in irrigated areas and 4.5 t/ha in rainfed areas, expanding irrigated and developed rainfed area to stabilize production and reduce climate risk.
- Ensuring that all paddy is processed domestically through modern, energy-efficient mills and value-added clusters, with 70% mechanically hulled by modern rice mills.
- Building a competitive seed, mechanization, and processing ecosystem that underpins commercialization and youth-led agribusiness growth.
- Strengthening market systems, SPS/quality standards, and trade corridors to enable Senegal to become a competitive rice producer in the West African region, in line with the ECOWAS Regional Rice Roadmap.

The coordinated implementation of the four planned intervention actions will not only significantly reduce dependence on rice imports but also create local added value, stable jobs, and a resilient, competitive economic fabric. The success of this plan rests on collective commitment from the State, private sector, colleges of actors, technical and financial partners, NGOs, and local authorities. Realising the NRIAP's vision requires joint commitment and timely action:

- Federal and State Governments must ensure policy coherence, predictability, and adequate budget allocations, and operationalize platforms such as the proposed National Rice Development Council to provide long-term governance of the rice sector.
- Development partners (World Bank, AfDB, IFAD, FAO, EU, USAID, GCF and others) are called upon to fund and scale the bankable pipeline of TWG-developed concepts, and to anchor broader programme lending to the NRIAP.
- Private investors, millers, seed companies, mechanization and energy service providers, and financial institutions are encouraged to leverage PPP frameworks to invest in irrigation, processing clusters, mechanization hubs, storage, and digital platforms.
- Farmers, cooperatives, women's and youth groups are central to adoption. With targeted extension, incentives, and inclusive financing, they will convert investment into productivity, jobs, and income gains.

This action plan is not only a planning tool but a catalytic instrument for investments, capable of positioning the rice sector at the heart of Senegal's economic and social development. Its effective implementation will ensure modern, efficient, and resilient rice cultivation, contributing to the achievement of food sovereignty.



Annexes

Annex I: Detailed Budget Table (FCFA)

No.	Wording		Costs per year (x 1,000,000) FCFA										
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	Total
Action I: Sustainably increase rice production to ensure local demand is met		685 822,3	52 351,1	59 200,1	54 947,3	62 659,1	60 992,2	53 064,0	50 897,1	49 862,4	51 402,3	62 955,7	1 248 053,7050640
Sub-action I.1: Water control		113 777,1	47 643,3	54 325,3	49 624,1	57 640,7	46 676,2	46 581,5	44 508,0	43 156,9	44 129,5	44 627,2	592 689,8
Activity I.1.1	Develop 25,000 ha in GBV by 2030	-	15 000,0	15 000,0	15 000,0	15 000,0	15 000,0	15 000,0	15 000,0	15 000,0	15 000,0	15 000,0	150 000,0000000
Activity I.1.2	Develop 9,000 ha in the Anambé basin by 2030	-	5 400,0	5 400,0	5 400,0	5 400,0	5 400,0	5 400,0	5 400,0	5 400,0	5 400,0	5 400,0	54 000,0000000
Activity I.1.3	Develop 145,190 ha in rainwater by 2030	11 277,1	14 493,3	21 175,3	16 474,1	23 990,7	11 526,2	11 431,5	9 358,0	8 006,9	8 479,5	8 977,2	145 189,7531260
Activity I.1.4	Rehabilitate 20,000 ha in GBV by 2030	-	8 000,0	8 000,0	8 000,0	8 000,0	8 000,0	8 000,0	8 000,0	8 000,0	8 000,0	8 000,0	80 000,0000000
Activity I.1.5	Rehabilitate 5,000 ha in the Anambé basin by 2030	-	2 250,0	2 250,0	2 250,0	2 250,0	2 250,0	2 250,0	2 250,0	2 250,0	2 250,0	2 250,0	22 500,0000000
Activity I.1.6	Ensure the maintenance of hydroagricultural facilities and irrigation canals for an amount of 28 billion in the VFS	2 000,0	2 000,0	2 000,0	2 000,0	2 000,0	3 000,0	3 000,0	3 000,0	3 000,0	3 000,0	3 000,0	28 000,0000000
Activity I.1.7	Ensure the maintenance of hydroagricultural facilities and irrigation canals for an amount of 8.5 billion in the Anambé basin	500,0	500,0	500,0	500,0	500,0	1 000,0	1 000,0	1 000,0	1 000,0	1 000,0	1 000,0	8 500,0000000
Activity I.1.8	Ensure the maintenance of hydroagricultural facilities and protect rice plots for an amount of 4.5 billion in rainfed	-	-	-	-	500,0	500,0	500,0	500,0	500,0	1 000,0	1 000,0	4 500,0000000
Activity I.1.9	Construction of Branch A of the Delta Outfall	100 000,0											100 000,0000000
Sub-action I.2: Ensuring control of the factors of production		559 538,8	417,3	461,3	510,1	564,4	624,6	672,5	752,1	779,8	825,4	-	565 146,3
Activity I.2.1	Rehabilitate the cold room of Saint Louis for an amount of 5,500,000 FCFA								10,0				10,0000000
Activity I.2.2	Rehabilitate the cold room of Djibélor for an amount of 10,000,000 FCFA								5,5				5,5000000
Activity I.2.3	Produce 102 t of pre-basic seed for rainfed by 2029	7,62	8,2	8,9	9,6	10,4	11,3	12,0	12,9	13,6			94,4000000

Activity 1.2.4	Produce 1319 t of rainfed staple seed by 2029	369,41	409,1	452,5	500,6	554,0	613,3	660,5	723,7	766,3	825,4		5 874,6000000
Activity 1.2.5	Produce 28,736 t of R1 and R2 seed for rainfed by 2030	109 241,75											109 241,7511990
Activity 1.2.6	Produce 20,000 t of R1 and R2 seeds for irrigation by 2030	57 977,40											57 977,4000000
Activity 1.2.7	To provide 14,368 t of urea for rainwater in 2030	34 738,88											34 738,8768810
Activity 1.2.8	To provide 19,157 t of NPK in 2030 for rainfed	48 940,30											48 940,3045370
Activity 1.2.9	To supply 49887T of urea in 2030 for irrigated	165 458,58											165 458,5800000
Activity 1.2.10	To provide 16,667 T of NPK for irrigated by 2030	40 881,50											40 881,5000000
Activity 1.2.11	Supplying 4.5 billion in phytosanitary products for rainfed rice cultivation by 2030	45 548,34											45 548,3393210
Activity 1.2.12	Provide 10 billion plant protection products for irrigated rice cultivation by 2030	56 375,00											56 375,0000000
Sub-action 1.3: Improve the modernization of irrigated and rainfed production		12 116,5	4 290,5	4 413,5	4 813,0	4 454,0	13 691,5	5 810,0	5 637,0	5 925,7	6 447,5	18 328,5	85 927,7
Activity 1.3.1	Sown an area of 478,930 ha in 2030 to ensure a production of 1,393,876 tons of paddy												-
Activity 1.3.2	Sown an area of 185,867 ha in 2030 to ensure a production of 1,159,600 tons of paddy												-
Activity 1.3.3	Allocate 720 Tractors+offsets+,trailers in the VFS	5 920,0	593,0	593,0	593,0	593,0	6 513,0	1 186,0	1 186,0	1 186,0	1 186,0	7 106,0	26 655,0000000
Activity 1.3.4	Grant 62 tractors+offsets+trailers in the Anambé Basin	332,0	-	142,0	119,0	-	332,0	24,0	320,0	296,0	178,0	510,0	2 253,0000000
Activity 1.3.5	Allocate 431 Tractors+offsets+trailers in the rainwater	1 998,0	111,0	37,0	259,0	259,0	3 219,0	703,0	444,0	781,7	1 110,0	7 030,0	15 951,7000000
Activity 1.3.6	To provide VFS with 3,263 GMPs	3 560,0	3 560,0	3 560,0	3 560,0	3 560,0	3 560,0	3 560,0	3 560,0	3 560,0	3 560,0	3 560,0	39 160,0000000
Activity 1.3.7	Equip the VFS with 168 plows	80,0	10,0	7,5	65,0	12,5	12,5	80,0	17,5	17,5	97,5	20,0	420,0000000
Activity 1.3.8	Equip the Anambé Basin with 7 ploughs	2,5	-	2,5	-	-	-	2,5	2,5	2,5	2,5	2,5	17,5000000
Activity 1.3.9	Equip the rainwater with 171 ploughs	52,5	2,5	57,5	35,0	5,0	37,5	37,5	65,0	40,0	47,5	47,5	427,5000000
Activity 1.3.10	Equip the VFS with 209 transplanters	87,5	10,5	7,0	133,0	17,5	17,5	164,5	28,0	28,0	203,0	35,0	731,5000000
Activity 1.3.11	Equip the Anambé Basin with 8 transplanters	7,0	-	3,5	-	-	-	3,5	3,5	3,5	3,5	3,5	28,0000000
Activity 1.3.12	Equip the rainwater with 81 transplanters	77,0	3,5	3,5	49,0	7,0	-	49,0	10,5	10,5	59,5	14,0	283,5000000
Sub-action 1.4: Integrating climate-smart approaches into hydro-agricultural management		70,0	70,0	70,0	70,0	70,0	70,0	70,0	70,0	70,0	70,0	70,0	770,0

Activity 1.4.1	Carry out upstream and downstream actions to reduce erosion through protection work (reforestation, contour lines) and agricultural development of the lowlands.	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	550,000000
Activity 1.4.2	Involve local actors in diagnosis and implementation to ensure ownership and sustainability	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	220,000000
Sub-action 1.5: Strengthen climate warning systems and sustainable water management.		320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	320,0	3 520,0
Activity 1.5.1	Improve real-time data collection via hydrometeorological stations, sensors and satellite images, integrating artificial intelligence.	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	1 100,000000
Activity 1.5.2	Ensuring that information reaches local populations in a timely manner, especially the most vulnerable	200,0	200,0	200,0	200,0	200,0	200,0	200,0	200,0	200,0	200,0	200,0	2 200,000000
Activity 1.5.3	Collaborate between local actors (local authorities, farmers, companies) for a balanced sharing of the resource.	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	220,000000
Action 2: Produce quality and competitive white rice		155 844,0	7 487,0	8 967,0	7 289,0	7 213,0	18 513,0	9 217,0	9 526,0	9 856,0	10 435,0	26 922,0	271 269,0
Sub-action 2.1: Promote an efficient paddy processing system »		13 144,0	4 957,0	5 492,0	5 869,0	6 018,0	17 118,0	7 922,0	8 181,0	8 511,0	9 090,0	25 777,0	112 079,0
Activity 2.1.1	Equip VFS producers with 8056 threshers by 2030	2 334,0	2 568,0	2 400,0	2 601,0	2 334,0	2 499,0	2 133,0	2 268,0	1 800,0	1 899,0	1 332,0	24 168,000000
Activity 2.1.2	Equip producers at the VFS with 553 shellers by 2030	632,0	84,0	66,0	-	58,0	58,0	58,0	-	50,0	50,0	50,0	1 106,000000
Activity 2.1.3	Leveraging 79 rice mills to boost transformation by 2030 in VFS	800,0	100,0	75,0	200,0	100,0	100,0	100,0	200,0	100,0	100,0	100,0	1 975,000000
Activity 2.1.4	Equip Anambé producers with 775 threshers by 2030	201,0	201,0	249,0	201,0	201,0	201,0	180,0	210,0	240,0	180,0	201,0	2 265,000000
Activity 2.1.5	Equip Anambé producers with 53 shellers by 2030	60,0	-	6,0	-	-	-	20,0	-	12,0	-	8,0	106,000000
Activity 2.1.6	Support the installation of 02 rice mills by 2030 in the Anambé basin	25,0	-	25,0	-	-	25,0	25,0	25,0	25,0	50,0	25,0	225,000000
Activity 2.1.7	Equip rainwater producers with 6898 threshers by 2030	1 119,0	1 185,0	1 440,0	1 524,0	1 884,0	1 587,0	1 923,0	2 031,0	2 421,0	2 562,0	3 018,0	20 694,000000
Activity 2.1.8	Allocate 440 hullers for rainwater by 2030	576,0	34,0	36,0	-	46,0	48,0	-	54,0	56,0	-	30,0	880,000000
Activity 2.1.9	Support the installation of 155 mini-rice mills by 2030 for rainfed	125,0	125,0	150,0	225,0	275,0	275,0	400,0	425,0	525,0	625,0	725,0	3 875,000000
Activity 2.1.10	529 combine harvesters for irrigated irrigation	6 600,0	600,0	1 000,0	800,0	1 000,0	1 150,0	2 600,0	2 800,0	3 000,0	3 000,0	18 500,0	51 400,000000
Activity 2.1.11	536 Irrigated balers	309,0	39,0	33,0	249,0	48,0	48,0	303,0	66,0	66,0	366,0	81,0	1 608,000000
Activity 2.1.12	1203 mowers for rainwater	318,0	18,0	9,0	42,0	66,0	777,0	153,0	96,0	210,0	222,0	1 698,0	3 609,000000

Activity 2.1.13	56 rainwater balers	45,0	3,0	3,0	27,0	6,0	-	27,0	6,0	6,0	36,0	9,0	168,0000000
Sub-action 2.2: "Paddy marketing" updated		142 700,0	1 725,0	750,0	825,0	750,0	750,0	800,0	900,0	900,0	900,0	700,0	151 700,0000000
Activity 2.2.1	To build 1700 km of tracks in the irrigated area by 2030	42 500,0											42 500,0000000
Activity 2.2.2	To build 5000 km of tracks in the rainfed zone by 2030	100 000,0											100 000,0000000
Activity 2.2.3	To build 259 storage warehouses in the Senegal River Valley by 2030	-	1 525,0	550,0	550,0	550,0	550,0	550,0	550,0	550,0	550,0	550,0	6 475,0000000
Activity 2.2.4	To build 29 storage warehouses in Anambé by 2030	-	-	-	75,0	-	-	50,0	150,0	150,0	150,0	150,0	725,0000000
Activity 2.2.5	To build 200 rainfed storage warehouses by 2030	200,0	200,0	200,0	200,0	200,0	200,0	200,0	200,0	200,0	200,0		2 000,0000000
Sub-action 2.3: Support the competitiveness of Senegal's rice		-	545,0	445,0	445,0	445,0	545,0	445,0	445,0	445,0	445,0	445,0	4 650,0000000
Activity 2.3.1	Reducing energy bills by solarization and the abolition of the fixed premium		100,0				100,0						200,0000000
Activity 2.3.2	Improving connectivity between production and marketing areas		50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	500,0000000
Activity 2.3.3	Facilitate access to common spare parts for processing units (cost, local manufacturing, credit, etc.)		100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	1 000,0000000
Activity 2.3.4	Making packaging accessible		50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0	500,0000000
Activity 2.3.5	Strengthening the framework for stakeholder consultation for the setting of paddy and processed rice prices		15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	150,0000000
Activity 2.3.6	Promote rice ranges specific to certain market niches (aromatic rice, parboiled rice, quality, culinary, organoleptic, etc.)		30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0	300,0000000
Activity 2.3.7	Continue incentives, (subsidy of local rice, measures on duties and taxes on imported rice)		100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	1 000,0000000
Activity 2.3.8	Strengthening the labelling of local rice		100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	1 000,0000000
Activity 2.4: Integrating a Regional Market Development Strategy			180,0	180,0	150,0	-	-	-	-	-	-	-	510,0000000
Activity 2.4.1	Encourage the adoption of harvesting, drying and storage techniques to reduce losses and improve the breakage rate of rice, including packaging to ECOWAS standards.		100,0	100,0	100,0								300,0000000
Activity 2.4.2	Strengthening regional standardization and certification		30,0	30,0									60,0000000

Activity 2.4.3	Promoting the export of Senegal rice to neighbouring countries		50,0	50,0	50,0								150,0000000
Sub-action 2.5: Implement agricultural risk management mechanisms (insurance instruments (index insurance, health insurance, AC, etc.))		-	50,0	100,0	-	-	100,0	50,0	-	-	-	-	300,0
Activity 2.5.1.	Setting up insurance instruments (index-based insurance, health insurance)		-	50,0	-	-	50,0	-	-	-	-	-	100,0000000
Activity 2.5.1.	Promoting contract farming		-	50,0	-	-	-	50,0	-	-	-	-	100,0000000
Activity 2.5.1.	Promote the Inclusive Rice Business Matching Fund.		50,0				50,0						100,0000000
Sub-action 2.6: Establish a rice development fund		-	30,0	2 000,0	-	-	-	-	-	-	-	-	2 030,0
Activity 2.6.1	Establish a Rice Development Fund (Window)		-	2 000,0		-	-	-	-	-	-	-	2 000,0000000
Activity 2.6.2	Integrate the ECOWAS regional blended finance platform.		30,0										30,0000000
Action 3: Strengthen action research and stakeholder capacities		-	-	-	-	-	-	-	-	-	-	-	15 536,8
Sub-action 3.1: Support action research		-	-	-	-	-	-	-	-	-	-	-	2 135,0340000
Activity 3.1.1	Popularizing new varieties and producing adapted pre-basic seeds												-
Activity 3.1.2	Adapt and disseminate rice production techniques, soil fertility management, water management, pest management												-
Activity 3.1.3	Adapt and popularize existing innovative technologies (Riceadvice/ Weedmanager, PPU, SRI, GIR, floating stations, contractual arrangements, ...)												-
Activity 3.1.4	Conduct demonstration units												-
Activity 3.1.5	Developing and adapting mechanization on AHAs												-
Activity 3.1.6	Recruit sufficient staff for research and advisory support												-
Activity 3.1.7	Strengthen the capacity of research staff and advisory support agents in specific areas												-
Activity 3.1.8	Support local artisans in the manufacture and adaptation of equipment												-
Activity 3.1.9	Strengthen the capacity of consultation frameworks, including SNRASP												-
Activity 3.1.10	Strengthening the Research-Extension Liaison												-

Activity 3.1.11	Strengthening relay producers												-
Activity 3.1.12	Systematize contracting between the different actors in the value chain												-
Sub-action 3.2: Support the organization of actors		-	-	-	-	-	-	-	-	-	-	-	13 401,7491500
Activity 3.2.1	Raise awareness among the actors in the value chain of the opportunities of the different links and their responsibilities												-
Activity 3.2.2	Supporting the revitalization of the ridges												-
Activity 3.2.3	Strengthening the technical capacity of the actors in the various links												-
Activity 3.2.4	Strengthen the technical, organisational, administrative and financial capacities of the inter-branch organisation												-
Activity 3.2.5	Strengthening the empowerment and integration of women and youth along the value chain												-
Action 4: Coordination of the sector.		-	112,0	57,0	22,0	22,0	22,0	22,0	22,0	22,0	22,0	22,0	345,0
Sub-action 4.1: Operationalize the national rice observatory to better manage the actions of the sector		-	90,0	-	-	-	-	-	-	-	-	-	90,0
Activity 4.1.1	Provide the Senegalese ONR and the technical structures with adequate infrastructure and equipment (rolling stock, plant seed conservation equipment, etc.)		50,0	-	-	-	-	-	-	-	-	-	50,0000000
Activity 4.1.2	Strengthening the secretariat's capacity for data collection, monitoring and observation		10,0										10,0000000
Activity 4.1.3	Strengthen communication channels between the ERO and local ecosystems through national chapters and technical partners.		10,0										10,0000000
Activity 4.1.4	Train experts at the national level on project management and implementation (e.g., management of specific agricultural programs for producers and millers) to ensure effective project delivery		20,0										20,0000000
Sub-action 4.2: Hold coordination meetings			2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	20,0000000
Activity 4.2.1	Hold quarterly meetings to review the implementation of production, processing and marketing forecasts established by the actors in the sector		2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	2,0	20,0000000
Sub-action 4.3: Monitoring, evaluation and audit		-	20,0	55,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0	235,0
Activity 4.3.1	Establish an external audit system to review the plan's accounts and expenditure management practices		-	20,0	-	-		-	-	-	-		20,0000000

Activity 4.3.2	Monitor and evaluate the actions of the plan		10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	100,000000
Activity 4.3.3	Adopt ECOWAS Key Performance Indicators (KPIs) for rice monitoring			15,0									15,0000000
Activity 4.4.1	Conduct periodic reviews on the implementation of the various measures		10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	10,0	100,0000000
Total		41 666,3	59 950,1	68 224,1	62 258,3	69 894,1	79 527,2	62 303,0	60 445,1	59 740,4	61 859,3	89 899,7	1 535 204,5

Annex 2: List of Core Key Performance Indicators (KPIs)

Monitoring and evaluation consist of a dynamic and progressive assessment of actions, sub-actions, and activities, making necessary corrections in real time. This work, carried out by the technical team, will generate deliverables to be exchanged with all actors through established coordination frameworks. Monitoring and evaluation will be carried out within the framework of adaptive management.

Key Performance Indicators

Category	KPI	Unit	Baseline	End Target (2035)	Data Source	Frequency
Productivity	Average rice yield per hectare	Tonnes/ha	6 (irrigated) 2.6 (rainfed)	8.7 (irrigated) 4.5 (rainfed)	Investigations	Yearly
Access to inputs	% of farmers using certified seeds	%	TBD	TBD	Outreach Reports	Yearly
Infrastructure	Hectares under irrigation for rice	Ha	TBD	TBD	Irrigation Authority	Semi-annual
Market	Volume of locally processed rice sold	Metric tons	TBD	TBD	Rice Processors Association	Yearly

Capacity	Number of farmers trained	Number	TBD	TBD	Project Reports	Quarterly
Finance	Volume of agricultural credit in the rice value chain	USD	TBD	TBD	Banks, MFIs	Yearly
Gender/Youth	% women and youth beneficiaries in the rice VC	%	TBD	TBD	M&E Program	Annual

Annex 3: Risk and Mitigation Framework

The major factors that could lead to the failure of the NSDR were identified and analysed according to their impacts and probability. The overall level of risk is considered moderate. However, specific mitigation measures have been planned for each risk category. Key cross-cutting considerations include:

- **Gender mainstreaming:** Due to the strong involvement of women and youth in rice farming, their participation in NRDS implementation is essential. They must be closely involved in all decisions and actions.
- **Respect for the environment:** In a context of climate change, it is imperative to ensure environmental respect in all actions undertaken. Environmental and social impact studies must be carried out before any large-scale action, with mitigation measures rigorously applied.
- **Opening up production sites:** Development of access roads to major rice cultivation sites is essential to ensure input supply and sale of production.
- **Access to finance:** All value chain actors, particularly the private sector, require lines of credit to ensure production, mechanization, processing, and marketing functions.

Risks and Mitigation Measures

Risks	Mitigation Measures	Risk Assessment
Availability of human, financial and material resources in time and quantity	Include office furniture, equipment and salaries in the governance component of the NRDS	Moderate
Rainfall variability related to climate change	Develop complementary irrigation (wells, drains); develop adapted varieties; apply Integrated Soil Fertility Management	Substantial
Non-compliance with technical standards for works/developments	Recruit specialized office for control of works; training of technical officers	Moderate
Financial instability (exchange rate)	Negotiate projects in unit-linked manner or taking inflation into account	Negligible
Low access to credit	Set up dedicated lines of credit for rice actors	Moderate

Low stakeholder buy-in	Conduct awareness and communication campaigns	Moderate
Diversity of approaches among partner projects and programmes	Discussions on harmonization within the Interministerial Committee; introduce consensual approach in MoUs	Moderate
Low gender mainstreaming along the value chain	Develop a specific communication and policy in favour of women and youth	Negligible
Failure to take into account environmental mitigation measures	Conduct ESIA's prior to implementation; develop and implement an environmental and social management plan	Moderate
Difficulties in input supply and disposal of production	Build access tracks to production sites	Moderate
Inadequacy of the monitoring and evaluation system	Establish a dedicated M&E unit within the coordination of the NSDR	High

Annex 4: NRIAP Validation