NIGERIA SUSTAINABLE AGRICULTURE VALUE CHAINS FOR GROWTH (AGROW) PROJECT

Project ID: P510848

Financed by:
The World Bank

FEDERAL GOVERNMENT OF NIGERIA

Federal Ministry of Agriculture and Food Security (FMAFS)
with Participating State Governments

INTEGRATED PEST MANAGEMENT PLAN (IPMP)

DRAFT

FEBRUARY, 2026

Table of Contents

List of Tables

List of Acronyms

AEPR	Annual Environmental Performance Review
AGROW	Agriculture and Rural Opportunities for Wealth Creation (Project)
CAP	Corrective Action Plan
CHS	Community Health and Safety
DLI	Disbursement Linked Indicator
E&S	Environmental and Social
EHS	Environmental, Health, and Safety
ESF	Environmental and Social Framework (World Bank)
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Standard
FAO	Food and Agriculture Organization of the United Nations
FAW	Fall Armyworm
FMEnv	Federal Ministry of Environment
FPCU	Federal Project Coordinating Unit
GRM	Grievance Redress Mechanism
HRAC	Herbicide Resistance Action Committee
IEC	Information, Education, and Communication
IPM	Integrated Pest Management
IPMP	Integrated Pest Management Plan
IRAC	Insecticide Resistance Action Committee
IVA	Independent Verification Agent
IVR	Interactive Voice Response
KPI	Key Performance Indicator
LGA	Local Government Area
NAFDAC	National Agency for Food and Drug Administration and Control
NASC	National Agricultural Seeds Council
NESREA	National Environmental Standards and Regulations Enforcement Agency
NiMet	Nigerian Meteorological Agency
OHS	Occupational Health and Safety
PHI	Pre-Harvest Interval
PIU	Project Implementation Unit
POP	Persistent Organic Pollutant

PPE	Personal Protective Equipment
REI	Re-Entry Interval
SDS	Safety Data Sheet
SEA/SH	Sexual Exploitation and Abuse / Sexual Harassment
SEPA	State Environmental Protection Agency
SOP	Standard Operating Procedure
SPIU	State Project Implementation Unit
WHO	World Health Organization

Executive Summary

ES1: Context and Purpose

Nigeria's agriculture underpins food security, jobs, and exports but is constrained by climate variability, low mechanization, and unsafe pest control practices. The AGROW project modernizes six priority value chains (rice, maize, soybean, cassava, cocoa, cashew), while ensuring health, environmental, and social safeguards through a rigorous IPM framework compliant with World Bank ESF (ESS3/ESS4/ESS6/ESS10) and Nigerian law (FMEnv/NESREA/NAFDAC). The IPMP covers all AGROW-financed crop production and agribusiness operations under Components 1–2.

Immediate navigational aids include:

- **Legal and conduct**: Annex 1 (VAPP Briefing), Annex 2 (Contractor Code of Conduct).
- **Who does what**: Table 9.1 Responsibility Matrix (Ch. 9).

ES 2: Baseline Risks and Rationale for IPM

Field diagnostics identifies the underlisted:

- Calendar spraying,
- Misuse/over-application (including broad-spectrum and unregistered products),
- Personal protective equipment (PPE) use gaps, and
- Unsafe storage/disposal (washing near streams; container reuse).

High-risk geographies include Sudan/Sahel savannas (moisture stress, migratory pests) and the humid south (fungal disease pressure). The IPMP shifts practice to threshold based, ecosystem-oriented management. -risk geographies include Sudan/Sahel savannas (moisture stress, migratory pests) and the humid south (fungal disease pressure). The IPMP shifts practice to threshold-based, ecosystem-oriented management.

IPMP management tools includes:

- **Scouting and thresholds**: Annex 3 (Weekly Scouting Sheet), Annex 14 (Economic Thresholds Fact Sheet), Annex 23 (Weekly Scouting Log), Annex 24 (Monthly Summary).
- **Seasonal alignment**: Annex 22 (Seasonal IPM Calendar—Rice & Maize).

ES3: The IPM Strategy (Hierarchy of Controls)

The IPM Strategy (hierarchy of controls) includes:

- Prevention and cultural controls (certified resistant seed; SRI in rice;
- Rotation/intercropping;
- Climate-Smart Planting (NiMet-guided planting);

- Field Sanitation and Field Hygiene;
- Habitat/biological control (beneficials, biopesticides, push-pull);
- Mechanical/physical (hand-picking, pheromone/light traps, sticky boards); and
- Chemical (last resort) only when economic thresholds are exceeded, using NAFDAC-registered, low-toxicity (WHO class u/iii) products, with full PPE and drift/runoff safeguards.

The required toolbox guide presented in the annex are under listed:

- **Training and field methods**: Annex 4 ("Scout to Save" Training).
- **Safe chemical choice and procurement**: Annex 15 (Procurement Vetting), Annex 16 (EHS Contract Clause), Annex 17 (Vendor E&S Self-Declaration).

ES 4: Pesticide Stewardship: (Procurement → Storage → Transport → Disposal)

The technical "Logistics Chain" for the AGROW Project highlighted to ensure proper control of every touchpoint from the point of purchase to the final destruction of the empty bottle. This would guide the project to ensure that no hazardous materials leak into the environment or informal markets.

- **Procurement** is centralized; only NAFDAC-registered products; no decanted/unlabeled products. Storage requires locked, ventilated, segregated warehouses with Red Zone for expired stock and FIFO inventory.
- **Transport**: dedicated vehicles, sealed containers, on-board SDS & spill kits.
- **Disposal**: mandatory triple-rinse + puncture, and NESREA-certified pickup—no burning, burying, dumping, or container reuse.

The safe handling guidance tools in the annex incudes:

- **Waste management and disposal**: Annex 5 & 8 (Disposal Protocols), Annex 6 (NESREA Pickup and Manifest).
- **Warehouse and logistics**: Annex 7 (Quarterly Warehouse Audit), Annex 39 (Warehouse Inventory & Safety Log), Annex 40 (Transport Manifest), Annex 41 (Vehicle Spill Drill), Annex 42 (Spill-Kit Checklist).

ES 5: Health, Safety and Community Protection

Health, Safety and Community Protection measures include:

- Zero-tolerance on spraying without full PPE;
- Bee and biodiversity protection measures;
- Implementation of no-spray buffers around water and settlements;
- 24-hour neighbor notice and Safety Flag protocol;
- Emergency first aid, poisoning management, and
- SEA/SH survivor-centric pathways.

Rapid-use materials include:

- **Poisoning control/first aid**: Annex 18 (Emergency Action Card), Annex 27 (Poisoning Incident Report).
- **Community notification**: Annex 19 (24-Hour Notice Script), Annex 20 (Safety Flag Radio Jingle), Annex 21 (Broadcaster's Guide).
- **Post-incident communications**: Annex 28 (Community Briefing Note).

ES 6: Capacity Building and Behavior Change

To ensure adequate capacity building and behaviour change, a 12-module curriculum (monitoring, safety, specialty topics) delivered via FFS/ToT, pictorial SOPs, radio/IVR, and WhatsApp micro-learning. This would ensure vendors become "Safeguard Partners" through dedicated training and audits; only certified vendors will carry the AGROW Certified seal (Annex 37).

Operational annexes include:

- **Curriculum and sessions**: Annex 4 (Scout to Save). https://worldbankgroup-my.sharepoint.com/personal/aolorundare_worldbank_org/_layouts/15/Doc.aspx?sourcedoc={4B2B1342-8FE8-414B-9BAE-D92B4875FCE9}&file=WB_AGROW Project IPMP_Cleam.doc&action=default&mobileredirect=true
- **Vendor program**: Annex 36 (Dealer Workshop Agenda), Annex 37 (Certified Vendor Sticker), Annex 38 (Vendor Audit Checklist), Annex 35 (Rotation & Resistance Guide).

ES 7: Governance, Roles and Financial Intermediation

The FPIU provides national oversight and reporting; while SPIUs screen sub-projects, deliver training, and conduct spot checks. The Fund Manager enforces ESS9 through ESMS, exclusion list, and CAPs. Regulatory partners (NAFDAC, NESREA, NASC, NiMet) shall provide technical and compliance backstops.

Quick oversight and coordination reference tools include:

- **Responsibilities**: Table 9.1 Responsibility Matrix (Ch. 9).
- **Warehouse non-compliance workflow**: Annex 9 (Urgent Notice), Annex 10 (Remediation Tracking Log), Annex 11 (Re-Audit Request), Annex 12 (Closure Report), Annex 13 (Lessons Learned).

ES 8: Screening, Risk Classification and "No-Go" Activities

All sub-projects shall undergo E&S screening:

- **Triggers** (e.g., purchase/storage/application of pesticides) preclude "Low Risk."
- **High-risk** activities (e.g., aerial spraying; WHO Class Ia/Ib; protected habitats) are **ineligible**. Moderate/Substantial risks require site-specific IPMP addenda with water monitoring, biodiversity, OHS/CHS, and SEA/SH GRMs.
- **Rule**: *"No Addendum, No Cash."*

Required forms and checklists:

- Annex 43 (E&S Screening—Pesticide Section); addenda workflow in Ch. 10.

ES 9: Monitoring, KPIs and Reporting

The following approach shall be undertaken:

- KPIs track training coverage,
- Scouting-before-spraying,
- Biopesticide uptake,
- PPE compliance,
- Incident/near-miss reporting, water quality, and aflatoxin levels.
- "Zero Incident" monthly reporting is mandatory even with no events.
- SPIUs are to define sentinel water points (start-/peak-season tests);
- Independent Verification Agents (IVAs) are to verify Disbursement Linked Indicator (DLI) compliance.

The Field-to-Dashboard pipeline is presented below:

- Annex 23 (Weekly Log) → Annex 24 (Monthly Summary) → Ch. 11 quarterly/annual reports; emergency logs in Annex 26 (Outbreak Response).

ES 10: Incident and Emergency Management

The incident handling and emergency management approach is outlined below:

- Unified S-C-N (Stop–Contain–Notify) protocol for spills;
- 2–24–48 hr escalation timelines;
- Specialized handling for SEA/SH cases with survivor-centric care and confidential channels.

The incident handling and emergency management tools presented in the annex is highlighted below:

- Annex 27 (Poisoning Incident Report);
- Annex 26 (Outbreak Response Log);
- Annex 41–42 (Spill drill & kit).

ES 11: Budget and Sustainability (3-Year Indicative: US$2.0m)

The 3 Year Indicative Budget allocations proposed covers:

- training/IEC,
- PPE starter kits,
- Storage upgrades and spill kits,
- Monitoring and labs,
- GRM/outreach, and
- Audits.

Sustainability pathways include vendor partnerships for PPE supply, cooperative safety funds, and integration of the 12-module curriculum into state extension systems.

Chapter One : Introduction and Project Overview

1.1 Background

Nigeria's agricultural sector—encompassing crop production, livestock, forestry, and fisheries—remains a critical pillar of economic development, employment, and food security, contributing over 20 percent of GDP and providing livelihoods for a significant share of the population. Key crops include cassava, maize, yam, and sorghum, with Nigeria recognized as a leading global producer of cassava and yam. With substantial arable land and diverse agro-ecological zones, the sector has strong potential to enhance national food self-sufficiency and regional trade. Despite this potential, the sector faces persistent challenges including inadequate infrastructure, limited mechanization, climate variability, weak institutional capacity, and gaps between public policy and private sector participation. These constraints continue to limit productivity, value addition, and competitiveness, contributing to food import dependence and constrained rural incomes.

In response, the Federal Government of Nigeria, with support from the World Bank, has initiated the Nigeria Sustainable Agriculture Value Chains for Growth (AGROW) Project to promote sustainable agricultural growth, job creation, and private sector participation across priority value chains.

1.2 Purpose of the IPMP

This Integrated Pest Management Plan (IPMP) provides a comprehensive framework for preventing, managing, and mitigating risks associated with pest and pesticide use under AGROW. It is prepared in compliance with:

- World Bank Environmental and Social Framework (ESF);
  - ESS3: Resource Efficiency and Pollution Prevention and Management
  - ESS4: Community Health and Safety
  - ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- Nigerian national laws and regulations (FMEnv, NESREA, NAFDAC)

The IPMP applies to all AGROW-financed activities involving crop production, seed multiplication, demonstration plots, extension services, and agribusiness operations supported under Components 1 and 2.

1.2 Project Development Objectives

The project is designed to create a sustainable ecosystem by focusing on four primary outcomes:

1. **Increased Productivity:** Helping smallholder farmers yield more per hectare.
2. **Private Sector Investment:** Encouraging businesses to invest in processing, logistics, and supply chains.
3. **Food & Nutrition Security:** Ensuring stable access to high-quality food.
4. **Job Creation:** Specifically targeting opportunities for **women and youth** to reduce unemployment and rural-to-urban migration.

1.3 Strategic Components and Environmental Risks

Focusing on **Components 1 and 2**, the project aims to balance the push for higher yields with the environmental responsibility of managing chemical inputs. The Integrated Pest Management Plan (IPMP) is a critical safeguard for the Sudan and Sahel Savanna regions, where the ecosystem is particularly fragile. How these components interact with the geographic and environmental constraints is outlined below:

1.3.1 Component 1: Off-take Arrangements

This component focuses on securing markets for farmers. By linking smallholders to large-scale buyers (off-takers), the project ensures a guaranteed income.

- **The Risk:** To meet the strict quality and quantity standards of private off-takers, farmers may feel pressured to over-use chemical fertilizers and pesticides.

1.3.2 Component 2: Modernization of Smallholder Production

This involves providing better seeds, irrigation, and mechanized tools to increase output.

- **The Risk:** Agricultural intensification often shifts traditional farming toward monocropping, which can lead to rapid pest outbreaks and soil degradation if not managed via the IPMP.

1.4 Geographic & Ecological Context

The implementation across diverse zones requires tailored approaches to pest and moisture management:

Zone	Primary Challenges	IPMP Focus
Sudan Savanna	Short rainy seasons, locusts, and grain-eating birds.	Drought-resistant crops and biological pest control.
Sahel Savanna	Severe moisture stress, desertification, and high evaporation.	Soil moisture conservation and minimal chemical runoff to protect scarce water.

1.5 The Role of the IPMP

The Integrated Pest Management Plan acts as a "green filter" for the project by:

1. **Prioritizing Non-Chemicals:** Using biological controls (like beneficial insects) and physical barriers before resorting to chemicals.
2. **Pesticide Safety:** If chemicals are necessary, the IPMP mandates training on the least toxic options and proper application techniques to prevent groundwater contamination.
3. **Climate Resilience:** Selecting pest-management strategies that don't further weaken crops already stressed by the heat of the northern Savannas.

1.6 Priority Value Chains

The project concentrates its resources on six key commodities that are vital for domestic consumption and export:

- **Grains:** Rice, Maize, and Soybean.
- **Roots & Tubers:** Cassava.
- **Cash Crops:** Cocoa and Cashew.

1.7 Project Beneficiaries

AGROW is designed to benefit a wide range of stakeholders across the agricultural value chain.

Primary beneficiaries include:

- Smallholder farmers and farmer organizations
- Agribusinesses, aggregators, processors, and off-takers
- Women and youth engaged in agricultural production and entrepreneurship
- Federal and State MDAs involved in agriculture and rural development

The project is expected to directly benefit hundreds of thousands of participants and indirectly benefit several million people through improved access to markets, services, and infrastructure.

Chapter Two : Legal and Regulatory Framework

2.1 Legal and Regulatory Hierarchy

The legal framework for the AGROW Project creates a dual-layered accountability system. By integrating international standards with Nigerian law, the project ensures that high-level protections for the environment, community safety, and labor rights are maintained throughout the six-year implementation.

2.1.1 Nigerian National Framework

The project must also comply with domestic agencies and laws:

- **FMEnv/NESREA:** Oversees Environmental Impact Assessments (EIA) and the management of chemicals.
- **NAFDAC:** Regulates the registration and distribution of all pesticides and agrochemicals.
- **Labour Act:** Sets the baseline for Occupational Health and Safety (OHS).
- **VAPP Act:** Provides the legal backbone for preventing Sexual Exploitation, Abuse, and Harassment (SEA/SH).

2.1.2 World Bank Environmental and Social Standards (ESS)

These are the primary safeguards for the project. Key standards include:

- **ESS3 (Resource Efficiency and Pollution Prevention):** Focuses on managing pesticides and reducing waste.
- **ESS4 (Community Health and Safety):** Addresses risks like vehicle traffic, disease, and structural safety.
- **ESS10 (Stakeholder Engagement):** Mandates continuous consultation with affected communities.
- **WBG EHS Guidelines:** Provides technical benchmarks for general and sector-specific environmental health and safety.

2.2 The Stringency Principle

The most critical rule in this framework is the **Precedence of Standards**. Because discrepancies can occur between local laws and World Bank policies, the project follows a strict protocol. Where national laws and World Bank ESF differ, the stricter standard applies.

Table : Legal and Regulatory Framework .1: Gap Analysis Between Nigerian National Law and World Bank ESF

Feature	Nigerian National Law	World Bank ESF	Project Action
Compensation	Depreciation is often included.	Full Replacement Cost.	Apply World Bank ESF standard.
Grievance	General legal channels.	Dedicated GRM is required.	Establish project-level GRM.
Hazardous Work	Often 16+ years old.	Strictly 18+ years old.	Enforce 18+ for all risk tasks.

2.3 Institutional Oversight

In line with the project environmental and social management framework (ESMF), the project institutional oversight is outlined below:

- **FMAFS (Federal Ministry):** Responsible for overarching policy and coordination.
- **PIU (Federal & State Project Implementation Unit):** Handles day-to-day monitoring of safeguards.

- **State Agencies:** Local Environmental Protection Agencies (SEPAs) ensure regional compliance.

Chapter Three : Baseline Conditions and Pest Management Context

Based on the baseline data for the AGROW Project, the current pest management landscape shows a significant gap between traditional practices and the Integrated Pest Management (IPM) standards required by the World Bank. The reliance on broad-spectrum pesticides without threshold-based scouting creates both environmental risks and potential health hazards for smallholders in different zones. To provide a comprehensive baseline for the AGROW Project, this section details how the intersection of climate and crop biology dictates the environmental risks. Below is an elaboration of these baseline conditions.

3.1 Agro-Ecological Context

Nigeria's agro-ecological diversity creates a complex pest landscape. The shift from the arid North to the humid South significantly affect the biological "window of opportunity" for pests.

- **Sudan and Sahel Savanna:** Characterized by short, intense rainy seasons. Here, moisture stress weakens crops, making them more susceptible to migratory pests like **Desert Locusts** and **Grain-eating Birds (Quelea birds)**. The high heat also accelerates the lifecycle of certain insects, leading to rapid population explosions.
- **Guinea Savanna:** The "breadbasket" of Nigeria. The moderate rainfall supports high maize and soybean yields but also creates ideal conditions for the **Fall Armyworm**.
- **Forest and Derived Savanna:** High humidity levels in the South promote fungal pathogens. Crops like Cocoa and Cashew are at constant risk of **Black Pod disease** and fungal blights, requiring intensive disease management.

3.2 Key Pests by Priority Value Chains

The baseline identifies the below specific "Economic Pests" that threaten the Project Development Objective (PDO) by reducing marketable yields and quality:

Value Chain	Primary Pests & Diseases	Impact Context
Rice	Stem borers, Rice blast, Brown planthopper	Stem borers can cause "dead hearts" in up to 30% of irrigated rice fields if unmanaged.
Maize	Fall armyworm (FAW), Stem borers	FAW is an invasive threat that can defoliate entire maize clusters within 48 hours.
Cassava	Cassava Mosaic Disease (CMD), Mealybugs	CMD is viral; baseline data shows traditional cuttings often carry the virus from season to season.
Soybean	Pod borers, Aphids	Pod borers directly damage the grain, reducing the protein value and oil yield.
Cocoa/Cashew	Capsids, Mirids, Fungal diseases	Fungal diseases in the South are exacerbated by poor pruning and high canopy density.

3.3 Critical Weaknesses in Existing Practices and Risks

The baseline assessment identifies three areas requiring immediate intervention under the Integrated Pest Management Plan (IPMP). Current "Business as Usual" (BAU) practices among smallholders present significant Environmental and Social (E&S) risks that the AGROW project aims to mitigate as outlined below:

3.3.1 Technical Risks: Misuse and Over-application

- **Inappropriate Selection:** Farmers often use "cocktails" of unregistered or broad-spectrum chemicals (e.g., Lindane or Endosulfan residues) which are persistent in the environment and kill beneficial

predators like spiders and ladybirds. Current "intermittent reliance" on broad-spectrum chemicals often kills beneficial insects (predators), leading to pest resurgence.

- **Calendar Spraying and Decision Making:** Rather than scouting for pests, farmers spray on a fixed schedule. This leads to pesticide resistance and unnecessarily high input costs. A lack of **scouting** means farmers spray on a schedule (calendar-based) rather than when pest populations actually reach an economic threshold.

3.3.2 Health Risks: Exposure and Occupational Hazards

- **PPE Gaps and Safety Protocols:** Baseline surveys indicate less than 15% of smallholders use full Personal Protective Equipment. Most spray in everyday clothing, leading to dermal absorption and long-term respiratory issues. Variable use of PPE increases the risk of acute and chronic poisoning among farmers.
- **Vulnerable Groups:** Women and youth with limited capacity are often involved in post-harvest handling or secondary application, where exposure risks are high.

3.3.3 Environmental Risks: Storage and Disposal

- **Water Contamination and Waste Management:** Poor storage near domestic water wells and the common practice of washing sprayers in streams lead to acute aquatic toxicity. Weak storage and disposal lead to environmental leaching, particularly dangerous in the moisture-stressed Sudan and Sahel Savanna where water sources are shared.
- **Container Reuse:** There is a high baseline incidence of empty pesticide containers being repurposed for household water or food storage, a direct violation of World Bank ESS4.

3.4 Strategic Transition from Baseline to AGROW Standard

To address these conditions, the project will transition from this baseline to a Threshold-Based IPM model. This involves shifting the focus from "killing pests" to "managing ecosystems" through the use of resistant varieties, biological controls, and strictly regulated, NAFDAC-approved chemical interventions. To move from the baseline to the "Modernization" goal of Component 2, the following shifts are mandatory:

- **Threshold-Based Monitoring:** Training extension workers and farmers to count pests before deciding to spray.
- **Biological Controls:** Introducing "push-pull" technology (e.g., planting Desmodium to repel pests) or using pheromone traps for Fall Armyworm.
- **NAFDAC Compliance:** Ensuring only registered, "green-label" (low toxicity) pesticides are used, strictly prohibiting any World Bank-banned chemicals.
- **Community Training:** Implementing "Farmer Field Schools" to demonstrate proper chemical handling, storage (away from food and children), and triple-rinsing of containers.

3.5 AGROW Risk Mitigation Matrix Transitioning to IPM Standards

This Risk Mitigation Table serves as a strategic bridge between the baseline weaknesses and the AGROW project's environmental and social safeguards. It aligns the existing "Business as Usual" risks with specific interventions mandated by World Bank ESS3 and the IPMP. As presented in Table 2.2.

Table : Baseline Conditions and Pest Management Context.2: AGROW Risk Mitigation Matrix

Existing Risk Category	Specific Baseline Risk	AGROW Project Intervention	Monitoring Indicator
Technical / Ecological Health & Safety	Pesticide Resistance due to "Calendar Spraying" (spraying regardless of pest levels).	Farmer Field Schools (FFS): Training on threshold-based scouting using the AGROW Scouting	% of farmers using scouting sheets before spraying.

		Sheet.	
	Loss of Biodiversity: Use of broad-spectrum chemicals killing beneficial insects.	Bio-Control Prioritization: Introduction of botanical extracts (Neem) and "Push-Pull" technology.	Population count of "Farmer Friends" (Spiders/Ladybirds) in plots.
	Chronic/Acute Poisoning: Farmers spraying in civilian clothes without PPE.	PPE Provision & Mandate: Distribution of certified PPE kits to all participating smallholders and contractors.	# of PPE kits distributed and verified in use during spot checks.
	Vulnerable Group Exposure: Women and youth exposed during post-harvest or mixing.	Targeted Safeguard Training: Gender-sensitive training sessions on safe handling and "No-Go" zones for children.	% of women farmers trained in safe chemical management.
Environmental	Water Contamination: Washing sprayers in streams/wells; runoff from over-application.	**Buffer Zone Enforcement:** Mandatory 30-meter "No-Spray" zones around water bodies and "Fadama" lands.	Water quality testing (pesticide residues) in project catchment areas.
	Toxic Waste Accumulation: Burying, burning, or repurposing empty pesticide containers.	**Container Management System:** Implementation of the "Triple Rinse" protocol and NESREA-certified waste pickup.	# of containers recovered and destroyed by certified contractors.
Institutional	**Unregulated Inputs:** Use of "Red Label" or unregistered chemicals from local markets.	**NAFDAC Compliance Registry:** Only NAFDAC-registered "Green/Blue Label" chemicals allowed for project financing.	Audit of warehouse inventory against the approved Pesticide List.

3.6 Implementation Strategy for Field Officers

To ensure these mitigations are effective, Field Officers should follow the "Three-Check" Rule during every site visit:

1. **The Crop Check:** Are pests actually above the economic threshold on the scouting sheet?
2. **The Gear Check:** Is the operator wearing the full PPE kit provided by the project?
3. **The Waste Check:** Are empty containers being rinsed, punctured, and stored in the designated collection bin?

3.7 Sustainability Factor and The Economic Incentive

It is vital to communicate to farmers that these mitigations are not just "rules"—they are cost-saving measures.

- Using thresholds reduces the number of sprays per season, saving money.
- Using "Green Label" chemicals and biologicals preserves soil health, ensuring long-term productivity.
- Proper PPE use prevents medical expenses related to chemical exposure.

Chapter Four : Integrated Pest Management Approach

To align with World Bank and FAO standards, the IPMP defines a decision-making hierarchy. The model treats the chemical intervention as a "failure" of the upper tiers, used only when all other methods cannot prevent economic loss. The AGROW Project therefore utilizes an IPM Pyramid strategy. This hierarchical approach ensures that the most environmentally friendly and cost-effective methods are utilized first, with chemical toxicity introduced only as a final, monitored necessity.

4.1 Prevention and Cultural Controls (The Foundation)

Prevention is the most sustainable tier, focusing on creating an environment where pests struggle to establish themselves by applying the outlined measures:

- **Certified Pest-Resistant Varieties:** AGROW will distribute seed varieties specifically bred for the Nigerian context, such as CMD-resistant cassava and Striga-tolerant maize. Distribution of NSI-certified seeds (e.g., FARO varieties for Rice, TELA for Maize) that possess genetic resistance to local pests like Stem Borers and Rice Blast.
- **Climate-Smart Planting (NiMet Advisories):** Using **NiMet Seasonal Climate Predictions** to adjust planting dates. Timing planting to avoid the peak emergence of pests like the Fall Armyworm can reduce initial infestation by up to 40%.
- **System of Rice Intensification (SRI):** Implementing SRI methods (alternate wetting and drying) to reduce humidity in the rice canopy, which naturally suppresses fungal diseases and Brown Planthopper.
- **Urea Deep Placement (UDP):** Using briquettes placed deep in the soil rather than broadcasting. This prevents "lush" nitrogen-heavy surface growth that attracts sap-sucking insects.
- **Intercropping and Rotation:** Breaking monocultures (e.g., intercropping maize with soybeans) disrupts the lifecycle of specialized pests like stem borers.
- **Field Sanitation and Field Hygiene:** Farmers are trained to "clean the farm" by removing and safely destroying crop residues that harbor overwintering pests or fungal spores (e.g., Rice Blast). Mandatory removal of "volunteer" plants and crop residues that serve as wintering homes for pests.
- **Soil Health Management:** Using balanced fertilization (NPK + Organic matter) ensures vigorous plant growth; healthy plants have natural "immune responses" that are more resistant to minor pest attacks.

4.2 Habitat Management and Biological Control (Harnessing Nature)

This tier focuses on utilizing living organisms or their derivatives to suppress pest populations. Moving from "killing" to "balancing," this tier uses nature to control nature through the outlined approach:

- **Bio-Control Agents (Natural Predators):** Conserving local "Farmer Friends" such as spiders, ladybird beetles, and lacewings. Field staff will train farmers to recognize these beneficial insects so they aren't accidentally killed.
- **Biopesticides:** Promotion of Neem-based extracts and microbial agents like *Bacillus thuringiensis (Bt)*. These are highly targeted and have low toxicity to mammals and water bodies.

- **Habitat Management:** Maintaining flowering borders around fields to provide nectar for parasitoid wasps, which naturally kill crop-eating caterpillars. Planting "Refugia" or flowering borders (e.g., Marigolds or Desmodium) to attract natural enemies like parasitoid wasps and hoverflies.
- **Push-Pull Technology:** Intercropping maize with *Desmodium* (which "pushes" pests away) and planting *Napier Grass* around the border (which "pulls" them out of the field).

4.3 Mechanical and Physical Control (Direct Intervention)

Manual methods are highly effective for smallholder plots and reduce the need for expensive chemical inputs. Low-cost, high-impact tools that provide immediate results without chemical residue are outlined below:

- **Manual Removal:** Hand-picking egg masses or clusters of Fall Armyworm (FAW) during the seedling stage. Organized "hand-picking" days during the early vegetative stage of crops.
- **Pheromone and Light Traps:**
  - **Light Traps:** Used at night in rice fields to catch adult moths before they lay eggs.
  - **Pheromone Traps:** Pheromone Traps: Using scent-based traps to monitor and "confuse" male insects, preventing them from mating and laying eggs on the crops.
- **Physical Barriers (Sticky Traps):** Netting for high-value nurseries or the use of sticky traps to capture flying insects like aphids and whiteflies. Use of yellow and blue sticky boards to capture aphids, thrips, and whiteflies in vegetable and nursery plots.

4.4 Chemical Control (The Last Resort)

Chemicals are only introduced when the Economic Threshold (ET) is reached—the point where the cost of the damage exceeds the cost of the treatment.

- **Threshold-Based Decision:** No spraying is permitted without a completed Scouting Sheet proving that pest levels have exceeded the safety limit.
- **Selection Criteria:** Only NAFDAC-registered pesticides are permitted. The project strictly prohibits World Bank Class Ia, Ib (Extremely/Highly Hazardous) and Class II (Moderately Hazardous) chemicals if they cannot be used safely by smallholders.
- **The "Green/Blue" Preference:** Priority is given to World Bank Class U (Unlikely to present acute hazard) and Class III (Slightly hazardous) chemicals, typically indicated by Green or Blue labels.

4.5 Technical Monitoring Checklist

For a farm to be certified as "IPM Active," the Extension Worker must verify:

Table : Integrated Pest Management Approach.3: Technical Monitoring Checklist

Tool Category	Minimum Requirement
Preventive	Use of certified seeds + Evidence of balanced fertilization.
Cultural	Evidence of rotation or intercropping (no monoculture).
Monitoring	Presence of at least one trap (Light or Pheromone) per hectare.
Biological	Use of biopesticides before any synthetic chemical is considered.

4.6 The "Climate-Pest" Connection

Because pests move with the weather, all State Project Management Units (SPIUs) must integrate the NiMet Weekly Weather Update into their farmer's SMS alerts. If a dry spell is predicted, farmers should be alerted to scout for mites; if high humidity is predicted, the focus shifts to fungal blights.

Chapter Five : Pesticide Selection and Use

This section defines the strict regulatory and safety guardrails for the AGROW Project. By setting clear boundaries on what can be bought and how it must be applied, the project mitigates the "Business as Usual" risks of chemical misuse in the Savanna and Forest regions. ESS3: Resource Efficiency and Pollution Prevention (including Integrated Pest Management - IPM)

5.1 Selection Criteria

All pesticides financed or promoted by the AGROW Project must undergo a rigorous screening process to ensure they do not compromise the health of smallholders or the integrity of the ecosystem as outlined below:

- **NAFDAC Registration:** Every product must carry a valid NAFDAC registration number. This ensures the chemical has been tested for efficacy and safety within the Nigerian environment.
- **WHO Hazard Classification:** The project prioritizes the use of **WHO Class III (**Slightly Hazardous) and **Class U** (Unlikely to present acute hazard) chemicals. Use of **WHO Class II** (Moderately Hazardous) is only permitted when no viable alternative exists and strictly under expert supervision.
- **Environmental Profile:** Chemicals must have low persistence (break down quickly in soil/water) and low bioaccumulation (do not build up in the food chain).
- **IPM Compatibility:** Preference is given to "Selective Pesticides" that target specific pests while leaving beneficial predators (like spiders and ladybirds) unharmed.

5.2 Prohibited Substances

To protect project-affected persons and biodiversity, the following categories are **strictly banned** from procurement, storage, or use:

- **Extremely/Highly Hazardous (WHO Class Ia and Ib):** These pose an immediate lethal risk to humans and are non-compliant with World Bank **ESS3**.
- **Persistent Organic Pollutants (POPs):** Chemicals listed under the **Stockholm Convention** (e.g., DDT, Endosulfan) are prohibited due to their long-term environmental toxicity.
- **Unregistered/Counterfeit Products:** Any product sold in "open-market" unlabelled containers or missing NAFDAC certification is prohibited.
- **Prohibited by International Law:** Any substance banned under the **Rotterdam Convention** on Prior Informed Consent.

5.3 Safe Handling and Application

Correct application is as critical as chemical selection. The project mandates a "Safety-First" culture for all field staff and farmers.

A. Personal Protective Equipment (PPE)

No chemical application is permitted without full PPE, which must include:

- **Chemical-resistant gloves** (Nitrel or Neoprene).
- **Face masks/Respirators** to prevent inhalation of mists.
- **Boots and long-sleeved coveralls** to prevent dermal absorption.

B. Equipment Integrity and Calibration

- **Leak Checks:** Sprayers must be inspected for leaks in hoses and nozzles before every use.
- **Calibration:** Extension workers will train farmers to calibrate sprayers to ensure the **correct dose** is applied preventing "under-dosing" (which causes resistance) and "over-dosing" (which causes pollution).

C. Environmental Buffer Zones

To protect the community and natural resources, the following "No-Spray" rules apply:

- **Water Bodies:** No spraying within **30 meters** of streams, rivers, or domestic wells.
- **Weather Conditions:** Spraying is prohibited during high winds (to prevent drift into neighboring homes/crops) or immediately before heavy rain (to prevent runoff into groundwater).
- **Time of Day:** Spraying should occur in the early morning or late evening to protect non-target pollinators like bees.

Table 5.1 present a summary of the "Red-Yellow-Green" selection guide

Table : Pesticide Selection and Use.4 Summary of The "Red-Yellow-Green" Selection Guide

Category	Status	Action
WHO Class Ia/Ib	✗ PROHIBITED	Immediate removal and reporting to PIU.
WHO Class II	⚠ RESTRICTED	Use only with full PPE and Specialist approval.
WHO Class III/U	✓ PREFERRED	Use according to IPMP scouting thresholds.

Chapter Six : Procurement, Storage, Transport, and Disposal

This section establishes the technical "Logistics Chain" for the AGROW Project. By controlling every touchpoint from the point of purchase to the final destruction of the empty bottle the project ensures that no hazardous materials leak into the Nigerian environment or informal markets.

6.1 The Quality Gatekeeper Procurement Process

To eliminate the risk of adulterated or dangerous chemicals, AGROW strictly controls the source of all inputs.

- **Centralized Purchasing:** All project-financed chemicals are sourced through a vetted list of manufacturers or primary distributors. This prevents "open-market" procurement where quality cannot be guaranteed.
- **Anti-Decanting Rule:** The sale or use of "decanted" products (chemicals poured into unbranded plastic bottles or bags) is strictly prohibited. Every product must be in its original, factory-sealed container with a NAFDAC-approved label.
- **Batch Tracking:** Every procurement order is logged by batch number, allowing for rapid recall if a specific lot is found to be defective or causing adverse reactions.

6.2 Storage as the "Fortress" Approach

Safe storage is the most critical barrier against accidental poisoning and environmental leakage in regional hubs and at the farm level as outlined below:

- **Secure Facilities:** All AGROW regional warehouses must be locked, gated, and accessible only to authorized personnel. They must be constructed with non-flammable materials and feature concrete floors to prevent soil seepage in the event of a spill.
- **Ventilation & Light:** Facilities must be well-ventilated to prevent the buildup of toxic fumes and kept cool to prevent the chemical breakdown of the products.
- **Segregation & Labeling:** Chemicals must be stored by class. Herbicides must be separated from Insecticides to prevent cross-contamination. Every shelf must have clear signage, and a "Red Zone" must be maintained for expired or damaged items.
- **Strict Prohibitions:** Under no circumstances should pesticides be stored in residential homes, near animal feed, or in areas used for food preparation.
- **Safety Equipment:** Every store must have a functional Fire Extinguisher (CO2 or Dry Powder), a Chemical Spill Kit (sand, broom, shovel, and heavy-duty bags), and clear Danger: Poison signage in English and local languages.
- **Inventory Logs:** A "First-In, First-Out" (FIFO) system is used to ensure older stocks are used before they expire.

6.2 Transport: Ensuring Leak-Proof Logistics

The transport of pesticides across Nigeria's diverse terrain requires specialized handling to prevent "transit spills" by applying the outlined measures:

- **Dedicated Vehicles:** Pesticides must never be co-transported with food, seeds, livestock, or passengers. In smallholder contexts, if a motorcycle or small truck is used, the chemicals must be in a secondary, leak-proof container (like a plastic crate) secured to the vehicle.
- **Secure Containers:** Before transport, every cap and seal must be checked for integrity. Containers must be strapped down to prevent movement on uneven Savanna roads.
- **Emergency Kit on Board:** Every transport vehicle (including project-managed trucks) must carry a basic "Transit Spill Kit" consisting of sand/sawdust, a shovel, and heavy-duty bags.

- **Driver Training:** Drivers must be trained on how to handle a spill and provided with an emergency contact list for the PIU and local fire/health services.
- **Safety Data Sheets (SDS):** Every driver must carry a folder containing the SDS for every chemical on board. This provides emergency responders with critical information on how to handle a crash involving that specific cargo.

6.3 Disposal: Closing the Loop

The "Cradle-to-Grave" management of pesticide waste is a mandatory requirement under **World Bank ESS3**. The following measure shall be observed:

1. **The Triple-Rinse Standard:** This is the project's "Golden Rule" for empty plastic containers.
   i. Add water to 1/4 of the container.
   ii. Shake vigorously and pour the rinse-water (rinsate) into the sprayer tank to be used on the crop.
   iii. Repeat three times.
2. **Puncture & Crush:** Once triple-rinsed, the container must be punctured (to prevent any human reuse for water or food storage) and crushed to reduce volume.
3. **Return Schemes and NESREA Collection:**
   i. Where available, "Take-Back" schemes with vendors will be utilized.
   ii. Otherwise, containers must be brought to the Regional Warehouse collection point for pickup by a NESREA-certified hazardous waste contractor.
4. **Absolute Bans:** Open dumping in bushes, burial in "fadama" lands, and open-air burning are **strictly prohibited**, as these release dioxins into the air and toxins into the water table.
5. **Obsolete Stock Management:** Any chemicals that have expired or degraded must be quarantined in a "Red Zone," inventoried, and removed only by authorized national facilities.

Table 6.1 present quick audit guide for field officers

Table : Procurement, Storage, Transport, and Disposal .5: Quick Audit Guide for Field Officers

Safety Feature	Pass Mark	Fail Mark
Storage	Locked, concrete floor, signs in local language.	Stored under a bed or in a kitchen.
Transport	Sealed in a crate, tied down.	Carried in a bag with the family's food.
Disposal	Triple-rinsed, punctured, and logged.	Given to a child to use as a water bottle.
Bunded Floor	Liquid stays in the room if a drum leaks.	Liquid flows out the door into the soil.
Signage	Skull and Crossbones visible from 10m.	No warning signs on the door.
Puncturing	Hole in the bottom of the bottle.	Bottle looks clean and reusable.

Chapter Seven : Health, Safety, and Environmental Risk Management

This section defines the core protections for people and nature, moving beyond simple compliance to active risk prevention. Under the AGROW Project, the health of the farmer, the consumer, and the ecosystem are treated as a single, interconnected priority.

7.1 Occupational Health and Safety (OHS)

The project identifies farmers and warehouse workers as "frontline handlers" who face the highest risk of chemical exposure as outlined below:

- **Targeted Training Modules:**
  - **For Farmers:** "The Science of Safety" focusing on PPE usage, dermal absorption risks, and the dangers of spraying in high heat.
  - **For Extension Agents:** "First Responder Training" equipping them to identify symptoms of poisoning and supervise field-level compliance.
  - **For Agribusiness Workers:** "Warehouse Excellence" focusing on chemical spill containment and safe stacking heights to prevent accidents.
- **Emergency Response for Poisoning:**
  - **The "First Aid" Protocol:** Every regional warehouse must display a clear, icon-based chart for "Ingestion," "Skin Contact," and "Inhalation" emergencies.
  - **Hospital Liaison:** The project will provide local health centers with a list of active ingredients used in the area to ensure they have the correct antidotes (e.g., Atropine for organophosphates) in stock.

7.2 Community Health and Safety

Pesticide use impacts people beyond the farm gate. The project enforces "Good Neighbor" policies to prevent accidental exposure to non-farmers, especially children and the elderly as outlined below:

- **Mandatory Buffer Zones:**
  - A minimum 30-meter "No-Spray" buffer must be maintained around residential settlements, schools, and marketplaces.
  - A 50-meter buffer is required around domestic water wells and community "fadama" drinking points.
- **Advance Notification:**
  - Farmers are required to provide 24-hour verbal or written notice to immediate neighbors before applying chemicals.
  - This allows neighbors to move livestock, cover water sources, and keep children indoors during the application window.
- **Drift Management:** No spraying is permitted if wind speeds are high enough to carry chemical mists into community spaces.

7.3 Biodiversity Protection

Nigeria’s ecosystems, particularly in the Savanna and Forest zones, provide essential services (like pollination) that the AGROW Project must protect to ensure long-term food security.

- **Avoidance of Critical Habitats:** No project-financed agricultural activities or chemical use are permitted within Protected Areas, National Parks, or sensitive wetlands (Ramsar sites).
- **Pollinator Protection:**

- The "Bee Window": Spraying is encouraged in the late evening when bees are less active.
- Flowering Borders: Encouraging farmers to leave strips of native wildflowers to provide safe forage for bees and butterflies.

- **Aquatic Ecosystems:**
  - To prevent "Fish Kills," the project prohibits the washing of sprayers or disposal of rinsate in streams or irrigation canals.
  - Use of "highly toxic to fish" chemicals (e.g., certain synthetic pyrethroids) is restricted in areas with high aquaculture or fishing activity.

Table 7.1 pre the safe-farm compliance checklist

Table : Health, Safety, and Environmental Risk Management.6: **Safe-Farm Compliance Checklist**

Risk Area	**Daily Requirement**
Occupational	Is the operator wearing a mask, gloves, and boots?
Community	Did you tell your neighbor you are spraying today?
Biodiversity	Is the wind blowing toward the stream or the beehives?

Chapter Eight : Capacity Building, Training, and IEC

This section ensures that the IPMP is not just a document on a shelf but a set of living skills transferred to every level of the project. The 12-module curriculum is designed to be modular—allowing for 15-minute "Toolbox Talks" in the field or intensive 2-day workshops for Extension Agents.

8.1 The 12-Module AGROW Curriculum

The curriculum is divided into three "Pillars": Monitoring, Safety, and Specialized Control.

Pillar	Module #	Title & Key Learning Objective
I. Monitoring	1	**Scouting & Thresholds:** How to use the "W-Walk" and when to act.
	2	**Pest/Disease ID:** Identifying Rice Blast, Fall Armyworm, and Blight.
	3	**Recordkeeping:** Mastering the Scouting Log and Pesticide Usage Log.
II. Safety	4	**Safe Handling:** Mixing, loading, and the "Triple-Rinse" protocol.
	5	**Storage & Disposal:** Bunding, ventilation, and container puncturing.
	6	**PPE Mastery:** Correct donning, doffing, and cleaning of gear.
	7	**Spill Response:** Using the Spill Kit and managing transit leaks.
	8	**First Aid/Poisoning:** Recognizing symptoms and using the Action Card.
III. Specialty	9	**FAW Management:** Specific rotation cycles for Fall Armyworm.
	10	**Aflatoxin Control:** Post-harvest management (moisture and storage).
	11	**Water Protection:** Understanding buffers and the 50m "No-Spray" rule.
	12	**IPM Decision Support:** Choosing between Bio vs. Chemical controls.

8.2 Information, Education, and Communication (IEC) Tools

To ensure messages stick, the project uses a "Multi-Channel" approach tailored to the Nigerian context as outlined below:

- **IPM Field Briefs:** Laminated, pocket-sized cards for Extension Agents to carry. One side shows the pest; the other shows the IPM "Action Point."
- **Pictorial SOPs:** Large posters placed at Warehouse and Cooperative Hubs. These use 80% images and 20% text to explain complex tasks like PPE donning.
- **Radio & IVR (Interactive Voice Response):** Weekly "Safety Minutes" aired on local community radio in Hausa, Yoruba, Igbo, and Pidgin.
- **WhatsApp Micro-Learning:** 30-second video clips sent to Farmer Group leaders showing "How to Clean a Sprayer" or "How to Set a Pheromone Trap."

8.3 Training Target Groups

Table 8.1 present the training target group.

Table : Capacity Building, Training, and IEC.7: Training Target Groups

Target Audience	Frequency	Method
SPIU / Safeguards Officers	Bi-Annual	Intensive 3-Day Technical Certification.
Extension Agents	Quarterly	Training-of-Trainers (ToT) / Demo Plot visits.
Farmer Cooperatives	Monthly	Farmer Field Schools (FFS) & Peer-to-Peer learning.
Offtakers / Vendors	Annual	Responsible Sourcing & Storage Workshops.

8.4 "Safety First" Pictorial SOP Example

The Visual guide for PPE Donning for farmers before entering the field is outlined below:

1. **Check Gear:** Ensure boots have no holes and masks have fresh filters.
2. **Bottom-Up:** Put on trousers (over the boots), then the jacket.
3. **The Mask:** Ensure a tight seal around the nose and mouth.
4. **The Gloves:** Put gloves **over** the sleeves for downward spraying.
5. **The Shield:** Lower the face shield only when mixing begins.

8.5 Implementation Note for SPCs

All training sessions must be documented with attendance sheets (disaggregated by gender) and Pre/Post-Test Scores. The World Bank will look for evidence that training actually changed behavior (e.g., increased use of biopesticides or improved container disposal rates).

Chapter Nine : Implementation Arrangements and Roles

This section outlines the governance structure of the Integrated Pest Management Plan (IPMP). Success depends on clear accountability, ensuring that environmental and social safeguards are not just policy but a day-to-day operational reality at every level of the AGROW Project.

9.1 National Oversight (The FPIU)

The Federal Project Implementation Unit (FPIU), specifically the Environmental and Social Specialists, serves as the primary custodian of the IPMP by carrying out the following responsibilities:

- **Oversight:** Conduct periodic audits of State-level activities.
- **Reporting:** Consolidate quarterly reports for submission to the World Bank.
- **Policy Support:** Interface with national regulators like NAFDAC and the Federal Ministry of Agriculture.

9.2 State Operations (The SPIUs)

The State Project Implementation Units (SPIUs) are the "engine room" of the IPMP by carrying out the following responsibilities:

- **Screening:** Ensure every sub-project is screened for pest risks before funding.
- **Training:** Cascade the 12-module curriculum to Extension Agents.
- **Supervision:** Conduct field spot-checks on PPE usage and buffer zones.

9.3 The Fund Manager (ESS9 Compliance)

As the intermediary for financing, the **Fund Manager** plays a critical role in enforcing environmental standards through Financial Intermediaries (FIs) by enforcing the under listed:

- **ESMS Checks:** Ensure that borrowing cooperatives have an Environmental and Social Management System (ESMS) in place.
- **Exclusion List:** Strictly enforce the ban on WHO Class Ia/Ib chemicals. No funds can be used to purchase prohibited substances.
- **Corrective Action Plans (CAPs):** Require borrowers to fix safeguard lapses (e.g., lack of storage) before releasing further tranches of funding.

9.4 Execution: Offtakers and Cooperatives

These are the frontline implementers who deal directly with the land and the laborers. They should ensure:

- **IPM Implementation:** Prioritize biological and mechanical controls over chemicals.
- **Log Maintenance:** Keep accurate Pesticide Usage Logs and Scouting Logs for audit.
- **Health & Safety:** Provide mandatory PPE to all workers and ensure they are trained in its use.

9.5 Regulatory and Technical Partners

While Table 9.1 present the IPMP responsibility matrix, outlined below is the detailed responsibilities of the IPMP operating parties:

- **NASC (National Agricultural Seeds Council):** Quality control to ensure only certified, pest-resistant seeds are used.
- **SEPAs / NESREA:** Conduct independent compliance inspections and verify that waste disposal (container puncturing) meets national standards.
- **NiMet:** Provide the **Seasonal Climate Predictions** used to trigger the IPM Seasonal Calendar.

- **Independent Verification Agent (IVA):** Provide third-party verification that the project's Disbursement Linked Indicators (DLIs) related to safeguards have been met.

Table : Implementation Arrangements and Roles.8: Responsibility Matrix

Task	Primary Responsibility	Oversight Body
Selecting Chemicals	Offtaker / Cooperative	SPIU (Safeguards Officer)
Distributing PPE	Cooperative Lead	Fund Manager (Audit)
Checking Buffer Zones	Extension Agent	SPIU / SEPAs
Reporting Poisoning	Extension Agent	FPCU / World Bank
Verifying Disposal	NESREA-Licensed Vendor	SPIU / NESREA

Chapter Ten : Screening, Risk Classification, and Instruments

This section acts as the "Regulatory Gatekeeper" for the AGROW Project. It ensures that no funding is released to a sub-project (Cooperative, Offtaker, or Individual) until its pest management risks have been professionally assessed and mitigated through the correct legal instruments.

10.1 The E&S Screening Process

Every sub-project must undergo a mandatory Environmental and Social (E&S) screening before approval as outlined below:

- **The Trigger:** If the screening indicates that a sub-project will involve the purchase, transport, storage, or increased application of pesticides, it cannot be classified as Low Risk.
- **The "No-Go" List:** Any activity involving High-Risk pesticide use (e.g., aerial spraying, use of WHO Class Ia/Ib, or activities in protected primary forests) is strictly Ineligible for funding.

10.2 Risk Classification and Instrument Requirements

The level of E&S instrument to be prepared should be proportional to the level of risk as highlighted in Table 10.1.

Table : Screening, Risk Classification, and Instruments .9: Risk Classification and Instrument Requirements

Risk Level	Trigger Condition	Required Instrument
Low Risk	No pesticide use; traditional manual weeding only.	Generic ESMP.
Moderate Risk	Standard pesticide use for Rice/Maize; small-scale storage.	IPMP Addendum or Sub-project IPMP + ESMP.
Substantial Risk	Large-scale chemical storage; use near sensitive wetlands.	Full Site-Specific IPMP + Detailed ESMP.
High Risk	Prohibited chemicals; aerial application.	INELIGIBLE FOR FUNDING.

10.3 Mandatory Site-Specific Components

For Moderate and Substantial risk sub-projects, the following site-specific plans must be embedded in the instrument:

- **Water Quality Monitoring:** Regular testing of nearby community wells and streams to ensure no chemical runoff (especially for Rice sub-projects).
- **Biodiversity Protection:** Specific protocols to protect non-target species, such as Bee Protection Zones and preserving beneficial insects (ladybugs, spiders).
- **OHS & CHS Plans:**
  - **Occupational Health & Safety (OHS):** Focused on the sprayer (PPE, training, medical checks).
  - **Community Health & Safety (CHS):** Focused on the neighbors (Notice periods, flags, buffer zones).
- **Specialized GRMs:** Dedicated channels for reporting SEA-SH (Sexual Exploitation, Abuse, and Sexual Harassment), ensuring that women in the workforce have a safe, confidential way to report misconduct by labor leads or extension staff.

10.4 The "Addendum" Workflow

To speed up implementation for small cooperatives, the SPIU can provide a Standard IPMP Addendum.

1. **Screening:** Extension Officer completes the checklist.
2. **Mapping:** Identify all water bodies within 100m of the farm.

3. **Adoption:** The Cooperative Lead signs the "Commitment to IPM" and attaches the Project's standard safety protocols.
4. **Verification:** The SPIU Safeguards Officer approves the addendum, triggering the release of funds.

10.5 Implementation Note for SPCs

The Fund Manager must not disburse any tranches for "Agricultural Inputs" until they receive a copy of the Approved Screening Report and the Site-Specific IPMP Addendum. This "No Addendum, No Cash" rule is the project's most effective safeguard.

Chapter Eleven : Monitoring, Indicators, and Reporting

This final section of the IPMP establishes the "Feedback Loop." By tracking these specific metrics, the AGROW Project can prove to the World Bank and Nigerian regulators that it is reducing chemical dependency while increasing farm safety and productivity.

11.1 Key Performance Indicators (KPIs)

The project monitors three types of indicators:

- **Process** (Are we doing the work?),
- **Compliance** (Are we following the rules?), and
- **Impact** (Is the environment safer?).

Table 11.1 presents the key performance indicators (KPIs).

Table : Monitoring, Indicators, and Reporting .10: Key Performance Indicators (KPIs)

Category	Key Indicator	Target / Goal
Capacity	% of farmers/offtakers trained in 12-module curriculum.	100% of project beneficiaries.
IPM Adoption	% of farmers using scouting/thresholds before spraying.	> 80% adoption rate.
IPM Adoption	% increase in biopesticide/botanical use vs. synthetics.	Year-on-year increase.
Compliance	% compliance with PPE and proper chemical storage.	100% (Zero Tolerance).
Compliance	Volume and type of pesticides used per hectare.	Reduction in total volume.
Safety	Number of incidents/near-misses reported (GRM/Poisoning).	Goal: Zero major incidents.
Quality	Aflatoxin levels in harvested maize.	Below 10 ppb (Parts Per Billion).
Environment	Water quality (Nitrate, Phosphate, pH) at sentinel points.	Within FMEnv/NESREA standards.

11.2 Environmental Sentinel Monitoring

The SPIU will identify "Sentinel Points" specific locations where farm runoff meets community water by monitoring the following:

- **Parameters:** Water will be tested for **pH**, **Nitrates**, and **Phosphates** to detect fertilizer/pesticide leaching.
- **Frequency:** Testing occurs once at the start of the wet season and once peak-season (August/September).
- **Corrective Action:** If water quality drops below safe levels, upstream sub-projects will be audited for buffer zone violations.

11.3 Reporting Schedule

Data flows from the field up to the National and International levels through a structured timeline.

Report Type	Responsibility	Frequency	Primary Audience
Progress Update	Contractors / Cooperatives	Monthly	SPIU (LGA Coordinator)
Safeguards Summary	SPIU (Env/Social Team)	Quarterly	FPCU / Fund Manager
Implementation Report	FPIU	Semiannual	World Bank Task Team
AEPR	FPIU	Annual	World Bank / NPIU / FMEnv

Note: The AEPR (Annual Environmental Performance Review) is the comprehensive audit of the entire year's IPM activities, including a summary of all grievances and their resolutions.

11.4 The "Zero Incident" Reporting Protocol

Even if there are no accidents, a "Zero Report" must be filed. This ensures that the lack of data is not confused with a lack of monitoring.

- **Near-Miss Reporting:** Farmers are encouraged to report "Near-Misses" (e.g., *"A spray nozzle leaked, but I was wearing gloves so no skin was touched"*). This allows the project to replace faulty equipment before a real injury occurs.

11.5 Implementation Note for SPCs

The Independent Verification Agent (IVA) will focus heavily on Chapter 11. They will cross-check "Monthly Logs" against "Quarterly Reports." If the numbers don't match, or if there is no evidence of water quality testing, the project's Disbursement Linked Indicators (DLIs) may be at risk.

Chapter Twelve : Incident Management and Emergency Response

This final section of the IPMP establishes the "Rapid Reaction Force" protocols. When prevention fails, the speed and quality of the response determine whether a mistake becomes a tragedy. All project staff and participating farmers must be trained to act without hesitation.

12.1 The "S-C-N" Spill Response Protocol

In the event of a chemical leak—whether in the warehouse, during transport, or in the field—the **STOP–CONTAIN–NOTIFY** rule applies immediately.

- **STOP:** Immediately halt the source of the leak (e.g., turn the bottle upright, shut off the sprayer valve).
- **CONTAIN:** Use the **Spill Kit**. Create a barrier of dry sand or sawdust around the spill to prevent it from reaching water bodies or gutters. Soak up the remaining liquid.
- **NOTIFY:** Cordon off the area with caution tape or the **Yellow Safety Flag**. Immediately alert the Extension Officer or State Safeguards Officer.

Waste Management: All contaminated absorbents (sand/sawdust) must be scooped into heavy-duty yellow bags, labeled "HAZARDOUS WASTE," and stored in the warehouse "Red Zone" for licensed disposal.

12.2 Poisoning & Medical Emergencies

Time is the most critical factor in treating pesticide exposure. The project adopts a "No-Blame" reporting culture to ensure victims seek help immediately.

Immediate First Aid Actions:

1. **Remove from Source:** Move the victim to fresh air. Remove contaminated clothing.
2. **Skin/Eye Decontamination:** Wash affected skin with plenty of soap and water. Flush eyes with clean water for at least 15 minutes.
3. **No Induced Vomiting: DO NOT** induce vomiting unless specifically directed by the product label. Many chemicals cause more damage to the throat if vomited.
4. **Identify the Poison:** Always take the **Product Label** or the **Safety Data Sheet (SDS)** to the medical facility so doctors can administer the correct antidote (e.g., Atropine).

12.3 Incident Reporting Timeline

Under World Bank ESS4, the project is bound by strict reporting windows to ensure transparency and remediation.

Table : Incident Management and Emergency Response .11: Incident Reporting Timeline

Timeframe	Action Required	Responsible Party
0 – 2 Hours	Immediate First Aid and Site Containment.	Farmer / Extension Officer
2 – 24 Hours	Verbal/SMS notification to the State PIU.	Extension Officer
24 – 48 Hours	Submission of the formal Incident Report Form to NPIU.	State Safeguards Officer
7 Days	Root Cause Analysis and Corrective Action Plan (CAP).	SPIU / FPIU

12.4 Sensitive Cases (SEA/SH)

If an incident involves Sexual Exploitation, Abuse, or Sexual Harassment (SEA/SH) for example, if a worker is threatened with dismissal for refusing to spray without PPE, or if harassment occurs during field activities:

- **Safe GRM:** The victim must be directed to the specialized, confidential SEA/SH grievance channel.
- **Survivor-Centric Care:** The project will prioritize the victim's safety and medical/psychosocial referral before any administrative investigation.

12.5 Emergency "Toolbox" for the Field

- **The Emergency Action Card:** A laminated card attached to every sprayer and kept in every vehicle cab with the "S-C-N" steps and emergency phone numbers.
- **The First Aid Kit:** Must be present at every mixing site, containing at least: soap, clean water, eye wash solution, and bandages.

Chapter Thirteen : Budget and Financing Plan (3-Year Indicative)

This section ensures that the **IPMP** is financially viable. For the AGROW Project, the budget is not a standalone cost; it is an investment in protecting the project's primary assets the farmers and the land. These figures are indicative for a standard State PIU and should be adjusted based on the number of participating LGAs and cooperatives.

13.1 Budget Breakdown by Activity

The total indicative budget of **$2.0 million** is designed to cover the critical setup and operational costs of the safeguard's framework. This will be cost-shared across the four main project components and supplemented by state allocations. Table 13.1 presents the indicative budget breakdown for the IPMP safeguard framework implementation.

Table : Budget and Financing Plan (3-Year Indicative).12: IPMP Safeguard Framework Indicative Budget Breakdown

Category	Estimated Cost (USD)	Key Deliverables
Capacity Building & IEC	$450,000	12-module curriculum delivery, Radio/SMS alerts, WhatsApp micro-learning, and pictorial SOPs.
PPE Starter Kits	$600,000	Provision of high-quality boots, masks, gloves, and overalls for 500+ cooperatives.
Storage & Spill Kits	$350,000	Upgrading LGA warehouses (ventilation/bunding) and equipping vehicles with spill response kits.
Monitoring & Labs	$300,000	Sentinel water testing, field soil-test kits, and aflatoxin screening equipment.
GRM & Outreach	$100,000	Community town halls, grievance logs, and specialized SEA/SH reporting channels.
Supervision & Audits	$200,000	Quarterly field spot-checks, independent verifications (IVA), and annual performance reviews.
TOTAL	**$2,000,000**	**Total Safeguard Investment for 36 Months**

13.2 Financing Strategy

The IPMP Safeguard Framework funding strategy is outlined below:

- **Component Integration:** Funding for PPE and scouting tools is drawn from **Component** 1 (Farm-Level Productivity). Funding for storage and waste management is drawn from **Component 2** (Infrastructure/Markets).
- **State Counterpart Funding:** States are expected to cover the personnel costs of Extension Workers and the physical space for LGA-level storage facilities.
- **Fund Manager Role:** The Fund Manager ensures that loans to offtakers include a dedicated "Safeguard Line Item" to ensure they can maintain their own PPE and storage standards over time.

13.3 Financial Sustainability (Post-Project)

To ensure these safety standards continue after the 3-year project period:

- **Vendor Partnerships:** Local agro-dealers will take over the supply of PPE as part of their standard inventory.
- **Cooperative Dues:** Cooperatives are encouraged to set aside a small percentage of their harvest sales into a "Safety & Replacement Fund" to buy new masks and filters.
- **Government Integration:** The Ministry of Agriculture will integrate the 12-module curriculum into the permanent training manual for all State Extension Agents.

Chapter Fourteen : Disclosure, Stakeholder Engagement and GRM

This final section ensures the IPMP is a transparent, living document that remains accountable to the people it serves. In alignment with World Bank ESS10 (Stakeholder Engagement and Information Disclosure), the project must actively "listen" to the community to identify and fix safeguard issues before they escalate.

14.1 Public Disclosure and Transparency

The IPMP is a public document. Its contents must be accessible to all stakeholders from government officials in Abuja to smallholder farmers in remote LGAs.

- **National/State Disclosure:** The full IPMP must be displayed on the notice boards of the Federal Ministry of Environment (FMEnv) and the State Environmental Protection Agencies (SEPAs**)** for a minimum of **21 days**.
- **Digital Access:** The document will be uploaded to the official project websites and the World Bank's external portal.
- **Language Access:** While the full technical document is in English, "Safeguard Summary Leaflets" must be translated into Hausa, Yoruba, Igbo, and Pidgin to ensure farmers fully understand their rights and safety requirements.

14.2 Multi-Channel Grievance Redress Mechanism (GRM)

The project establishes a dedicated "Safety Hotline" and multiple entry points for community members to report concerns. Table 14.1 outshine the multi-channel grievance redress mechanism.

Table : Disclosure, Stakeholder Engagement and GRM.13: Multi-Channel Grievance Redress Mechanism

Channel	Description
Hotlines/SMS	Dedicated toll-free numbers for instant reporting of spills or poisoning.
USSD Code	A simple menu (e.g., *123#) for farmers without internet access to log issues.
SERVICOM	Integration with existing government "Service Compact" desks at the State level.
Town Halls	Monthly "Safety Circles" where community leaders and farmers discuss IPM performance.
Grievance Boxes	Physical boxes placed at the Palace or Market for anonymous feedback.

14.3 Specialized SEA/SH Pathway

Incidents involving Sexual Exploitation, Abuse, or Sexual Harassment (SEA/SH) require a distinct, highly confidential protocol.

- **Survivor Privacy:** These cases are never discussed in public town halls.
- **Trained Responders:** Only female safeguard officers or specialized NGOs handle the intake of SEA/SH complaints.
- **Immediate Referral:** The priority is medical and psychological care for the survivor, followed by administrative action against the perpetrator.

14.4 Tracking Safeguard-Specific Grievances

The GRM is not just for general complaints; it is a "social sensor" for environmental health. The SPIU must specifically track:

1. **Chemical Drift:** Reports of spray mist landing on neighboring non-project farms or houses.
2. **Odors:** Community complaints regarding strong chemical smells from warehouses or fields.
3. **Water/Soil Concerns:** Suspected contamination of local wells or mass death of local beneficial insects/bees.

4. **PPE Lapses:** Reports of workers being forced to spray without protective gear.

14.5 Reporting Back to the Public

Transparency builds trust. Every quarter, the SPIU will publish a **"Safeguards Newsletter"** or radio announcement summarizing:

- The number of grievances received.
- The number of cases resolved (target: 90% resolution rate).
- Key improvements made (e.g., "Based on your feedback, we have moved the chemical store further away from the community school").

IPMP Reference List

1. International Multilateral Agreements (Treaties)

- **The Stockholm Convention on Persistent Organic Pollutants (POPs):** Regulates chemicals that remain in the environment (e.g., Aldrin, Dieldrin).
- **The Rotterdam Convention:** Covers the Prior Informed Consent (PIC) procedure for certain hazardous chemicals in international trade.
- **The Basel Convention:** Regulates the transboundary movement of hazardous wastes and their disposal (relevant to our container management protocol).
- **The Montreal Protocol:** Regarding substances that deplete the ozone layer (relevant to certain soil fumigants).

2. World Bank Environmental & Social Framework (ESF)

- **ESS1:** Assessment and Management of Environmental and Social Risks and Impacts.
- **ESS3:** Resource Efficiency and Pollution Prevention and Management (the core authority for the IPMP).
- **ESS4:** Community Health and Safety (authorizes our 50m water buffers and drift management).
- **ESS9:** Financial Intermediaries (requires the Fund Manager to enforce the exclusion list).
- **ESS10:** Stakeholder Engagement and Information Disclosure (authorizes our 21-day disclosure period).
- **World Bank Group General EHS Guidelines:** Specifically, the "Pesticide Management" and "Hazardous Materials Management" sections.

3. Nigerian National Legislation

- **NAFDAC Act Cap N1 LFN 2004:** The primary authority for the registration and control of pesticides in Nigeria.
- **NESREA Act 2007:** The mandate for environmental compliance, enforcement, and the protection of water bodies.
- **National Environmental (Chemicals, Hazardous Waste and Effluents Eradication) Regulations, 2011:** Specific rules on spill management and hazardous waste disposal.
- **Federal Ministry of Environment (FMEnv) EIA Act Cap E12 LFN 2004:** Governs the screening and environmental audit processes for the project.
- **Nigeria Pesticide Control Bill (Current Version):** Guidance on the classification and labeling of agrochemicals.

4. Technical & Scientific Standards

- **WHO Recommended Classification of Pesticides by Hazard:** The source for Class Ia, Ib, II, III, and U hazard levels.
- **FAO International Code of Conduct on Pesticide Management (2014):** The global standard for "Cradle-to-Grave" pesticide stewardship.
- **FAO Manual on Integrated Pest Management (IPM):** The basis for our scouting thresholds and the "W-Walk" methodology.
- **IRAC (Insecticide Resistance Action Committee) & HRAC (Herbicide Resistance Action Committee):** The authority for the Group Numbers on our Rotation Wall Chart.

5. Project-Specific Instruments

- **AGROW Project ESMF (Environmental and Social Management Framework):** The parent document under which this IPMP sits.
- **AGROW Project SEP (Stakeholder Engagement Plan):** Defines the specific GRM channels being utilized.
- **AGROW Project LMP (Labour Management Procedure):** Defines the OHS requirements for sprayers and field workers.

Annex 1: Briefing Note for Operationalizing the VAPP Act for Field Staff

This briefing note outlines the operationalization of the Violence Against Persons (Prohibition) Act (VAPP Act) to ensure the safety and dignity of all project-affected persons, particularly in rural field sites where AGROW activities are concentrated.

1. Purpose

To provide field staff with clear protocols for implementing the VAPP Act in alignment with World Bank **ESS4** and **ESS10**. This ensures a zero-tolerance environment for Sexual Exploitation, Abuse, and Harassment (SEA/SH) during AGROW project implementation.

2. Key Legal Mandates

Under the VAPP Act and World Bank Environmental and Social Framework (ESF), field staff must recognize that:

- **Broad Definition of Violence:** The Act covers physical, psychological, sexual, and economic violence.
- **Protection of Vulnerable Groups:** Specific protections are afforded to women, children, and persons with disabilities in agricultural settings.
- **Stricter Standards:** Where the VAPP Act is more comprehensive than local customary laws, the VAPP Act takes precedence.

3. Field Operational Protocols

A. Mandatory Code of Conduct (CoC)

Every field staff member, contractor, and sub-contractor must sign a formal Code of Conduct.

- **Prohibition:** Explicitly bans sexual activity with minors (under 18) and the exchange of money, employment, or goods for sexual favors.
- **Sanctions:** Clearly states that violations lead to immediate termination and referral to Nigerian law enforcement under the VAPP Act.

B. Safe Reporting & Grievance Redress (GRM)

Field offices must establish "Safe Spaces" for reporting:

- **Survivor-Centered Approach:** Reports must be handled with absolute confidentiality and prioritize the survivor's safety and medical/psychological needs.
- **Multiple Channels:** Anonymous hotlines, suggestion boxes in local languages (Yoruba, Hausa, Igbo), and trained female "Safeguard Officers" for initial intake.

C. Community Sensitization

Field staff are responsible for educating local farmers and off-takers about their rights:

- Disseminate information that project benefits (seeds, tools, credit) are **free from sexual obligations**.
- Use visual aids to explain what constitutes "prohibited behavior" under the VAPP Act.

4. Risk Management in Value Chains

Activity	Specific SEA/SH Risk	VAPP Act Mitigation Strategy
Input Distribution	Demand for "favors" in exchange for fertilizer/seeds.	Transparent, public beneficiary lists and monitored distribution points.
Field Monitoring	Harassment of female farmers in remote Savanna areas.	Staff must travel in pairs; no solo field visits to private residences.
Off-take Negotiations	Economic abuse or coercion of female smallholders.	Require female representation in local farmer cooperative leadership.

5. Incident Response Procedure

1. **Immediate Care:** Refer the survivor to a pre-mapped "Service Provider" (Health, Legal, or Psychosocial).
2. **Reporting:** Notify the Project Implementation Unit (PIU) within 24 hours (anonymized).
3. **Legal Action:** If a crime under the VAPP Act is suspected, coordinate with NAPTIP or the Nigerian Police Force (NPF) while ensuring survivor consent.

Annex 2: Code of Conduct for Field Contractors

This Code of Conduct (CoC) is designed to be a mandatory attachment to all service contracts for the AGROW Project. It ensures that every field contractor and their employees understand their responsibilities under the World Bank ESF (ESS4) and the VAPP Act of Nigeria.

Project: Nigeria Sustainable Agricultural Value Chains for Growth (AGROW)

Implementing Agency: Federal Ministry of Agriculture and Food Security (FMAFS)

1. Purpose and Scope

The AGROW Project is committed to a safe, inclusive, and professional environment. This Code of Conduct applies to all personnel (permanent, temporary, or sub-contracted) engaged by the Contractor. It governs behavior both during work hours and after-hours while residing in project-affected communities.

2. Core Principles of Conduct

All personnel are required to:

- **Comply with Local Laws:** Respect the laws of the Federal Republic of Nigeria and the specific regulations of the participating State.
- **Integrity in Distribution:** Ensure that project inputs (seeds, pesticides, tools) are distributed solely based on approved beneficiary lists. No solicitation of bribes or "favors" is permitted.
- **Respect for Communities:** Interact with community members with dignity, respecting local customs, languages (Hausa, Yoruba, Igbo), and religious practices.

3. Prohibited Behaviors (Zero Tolerance)

The following behaviors are strictly prohibited and will result in immediate removal from the project and potential legal prosecution under the **VAPP Act**:

- **Sexual Exploitation and Abuse (SEA):** Any actual or attempted abuse of a position of vulnerability or differential power for sexual purposes. This includes trading project benefits (money, employment, or inputs) for sexual favors.
- **Sexual Harassment (SH):** Unwelcome sexual advances, requests for sexual favors, or other verbal/physical conduct of a sexual nature.
- **Activities with Minors:** Sexual activity with any person under the age of **18**, regardless of the local age of consent or claims of "mistake" regarding age.
- **Discrimination:** Denying project benefits or harassing individuals based on gender, age, disability, ethnicity, or religion.
- **Violence/Harassment:** Any form of physical assault, threat, or intimidation against community members or fellow staff.

4. Health and Safety (ESS3/ESS4)

- **Personal Protective Equipment (PPE):** Contractors must ensure all staff use appropriate PPE when handling agrochemicals as mandated by the **IPMP**.
- **Chemical Safety:** No pesticides registered as "prohibited" by NAFDAC or the World Bank shall be used or distributed.
- **Traffic Safety:** Field vehicles must be operated at safe speeds, particularly near villages and schools, to prevent accidents.

5. Reporting and Grievance Redress

- **Duty to Report:** Any personnel who witnesses or suspects a violation of this Code (especially SEA/SH) is **obligated** to report it through the Project's Grievance Redress Mechanism (GRM).
- **Non-Retaliation:** The Project prohibits retaliation against any individual who reports a violation in good faith.

6. Acknowledgment and Signature

I, the undersigned, have read and understood this Code of Conduct. I acknowledge that my employment/contract is contingent upon compliance with these standards. I understand that any violation may lead to disciplinary action, termination of contract, and/or referral to the Nigerian Police Force or NAPTIP.

Name of Personnel	**Designation**	**Signature**	**Date**

Contractor Firm Stamp: _____

Annex 3: AGROW Project Weekly Pest Scouting Sheet

This **Pest Scouting Sheet** is designed for field officers and extension workers to use during routine visits to AGROW project sites. It focuses on the primary threats identified in the baseline—**Rice Stemborers/Blast** and **Fall Armyworm (FAW) in Maize**—to encourage data-driven pest management rather than routine spraying.

Field Officer Name: _____ **Date:** _____

State/LGA: _____ **Farmer Name:** _____

Crop Type: [ ] Rice [ ] Maize **Growth Stage:** _____ (e.g., Seedling, Flowering)

1. MAIZE SCOUTING (Focus: Fall Armyworm & Aflatoxin Risk)

Instruction: Select 10 plants in 5 different locations (Total 50 plants) in a "W" pattern across the field.

Symptom / Observation	Count (out of 50)	Severity (Low/Med/High)
Window-pane feeding (Small holes in leaves)	/50	
Moist Frass (Sawdust-like waste in the whorl)	/50	
Visible Larvae (Check inside the whorl)	/50	
Moisture Stress (Leaves curling - Aflatoxin risk)	/50	

Threshold Action (Maize): * 0–15% Infestation: Monitor only. Encourage manual removal of egg masses.

- **15–25% Infestation:** Apply botanical pesticides (e.g., Neem oil) or biological controls.
- **>25% Infestation:** Targeted application of NAFDAC-approved "Green Label" pesticides.

2. RICE SCOUTING (Focus: Stemborers & Blast)

Instruction: Check for "Dead Hearts" (drying central shoots) and leaf lesions.

Symptom / Observation	Presence (Yes/No)	Estimated Area Affected (%)
Dead Hearts (Stemborer damage)		
Whiteheads (Empty grains at maturity)		
Spindle-shaped lesions (Rice Blast symptoms)		
Stagnant Water / Poor Drainage		

Threshold Action (Rice): * Stemborers: If >5% of plants show "Dead Hearts" during vegetative stage, consider intervention.

- **Rice Blast:** If lesions are found on the top leaves (Flag leaf), prioritize treatment to save the grain head.

3. PESTICIDE SAFETY & GAP CHECK

To be filled out during every visit to monitor baseline compliance.

1. **Is the farmer wearing PPE?** [ ] Yes [ ] No (If No, specify missing items: _____)
2. **Are pesticide containers stored safely?** [ ] Yes [ ] No (Away from food/children?)
3. **Is there evidence of "Calendar Spraying"?** [ ] Yes [ ] No (Spraying without scouting?)
4. **Are beneficial insects present?** (e.g., spiders, ladybirds) [ ] Yes [ ] No

4. FIELD OFFICER RECOMMENDATION

[ ] **No Action:** Crop is healthy.

[ ] **Cultural Control:** (e.g., Weeding, adjusting irrigation, hand-picking pests).

[ ] **Biological/Botanical:** (e.g., Neem extract, pheromone traps).

[ ] **Chemical Intervention:** (Specify NAFDAC-approved chemical): _____

Officer Signature: _____ **Farmer Signature:** _____

Scouting Best Practices

- **Timing:** Scout in the early morning or late evening when pests are most active.
- **The "W" Pattern:** Do not just check the edges of the field; pests often cluster in the center or in damp corners.
- **Record Keeping:** Keep these sheets in the Farmer's Field Diary to track pest trends over the six-year project life.

Annex 4: Training Module - "Scout to Save"

This training module is designed for a one-day **Farmer Field School (FFS)** session. It uses the "Learning by Doing" approach, focusing on the specific pests identified in the AGROW baseline for Rice and Maize.

Objective: To empower smallholder farmers to make informed pest management decisions using the AGROW Scouting Sheet. **Target Audience:** Smallholder farmers in participating Nigerian states. **Duration:** 4 Hours (Best conducted in the early morning).

Module 1: The Why and How of Scouting (45 Mins)

- **The Problem:** Explain that "Calendar Spraying" (spraying every 2 weeks) wastes money and kills "the farmer's friends" (beneficial insects like spiders and ladybirds).
- **The Solution:** Scouting allows us to spray only when the "thieves" (pests) are too many for the crop to handle.
- **The Pattern:** Demonstrate the **"W" Walking Pattern**. Explain why we don't just look at the plants near the road.

Module 2: Maize Enemies – Fall Armyworm (FAW) & Aflatoxin (1 Hour)

- **Identification:** * Show samples of Maize leaves with "Window-pane" damage.
    - Point out the **"Y" mark** on the head of the FAW larvae and the four dark spots on the tail.
- **Hands-on Activity:** Farmers split into groups of five. Each group finds 10 plants and records "Frass" (waste) or larvae on their Scouting Sheet.
- **The Aflatoxin Link:** Explain that pests create wounds in the maize ear where "mould" (Aflatoxin) grows. Healthy ears = safe food.

Module 3: Rice Enemies – Stemborers & Blast (1 Hour)

- **Identification:**
    - **Dead Hearts:** Pull a drying central shoot to show the group how it comes out easily because the larvae ate the inside.
    - **Rice Blast:** Look for the "Diamond" or "Spindle" shaped spots on the leaves.
- **Hands-on Activity:** Groups move to a rice plot. They must find one "Dead Heart" and one leaf with spots, then mark the "Presence" on their sheet.

Module 4: Decision Making & Safety (1 Hour)

- **The Threshold Game:** Present scenarios.
    - *Scenario:* "You found 5 plants with FAW out of 50. Do you spray?" (Answer: No, the threshold is 15-25%).
- **The Green Label:** Show empty containers of "Red Label" (High Toxicity) vs "Green Label" (Low Toxicity) chemicals. Explain why the AGROW project only supports Green/Blue labels.
- **PPE Demonstration:** A volunteer puts on the basic PPE: Long sleeves, trousers, boots, and a face mask/shield.

Training Materials Required

1. **Laminated Scouting Sheets** (from the previous draft) and markers.
2. **Magnifying glasses** (if available) for identifying larvae.
3. **Samples of "Good Bugs":** Pictures or live samples of Spiders and Praying Mantis to show they should not be killed.
4. **NAFDAC-Approved Pesticide Chart:** Showing which colors are safe for the project.

Key Message for Farmers (The "Golden Rule")

"Do not spray because your neighbor is spraying. Spray only when your Scouting Sheet tells you the thieves have taken over the farm."

Annex 5: Pesticide Disposal & Waste Management Protocol

This **Pesticide Disposal Protocol** is designed for the AGROW Project's regional warehouses to ensure compliance with **World Bank ESS3** and Nigerian **NESREA/NAFDAC** regulations. Proper disposal prevents the contamination of groundwater and soil, which is critical in the fragile Sudan and Sahel Savanna ecosystems.

1. Waste Categorization

All warehouse waste must be sorted into three distinct streams:

- **Tier 1: Hazardous Waste** (Expired pesticides, concentrated spills, contaminated soil).
- **Tier 2: Contaminated Packaging** (Empty plastic drums, metal canisters, used PPE).
- **Tier 3: Non-Hazardous Waste** (Cardboard outer boxes, paper manuals).

2. The "Triple Rinse" Procedure

To downgrade "Tier 2" plastic containers to manageable waste, all staff must perform the Triple Rinse immediately after a container is emptied:

1. **Fill:** Add clean water to the container (approx. 20% volume).
2. **Shake:** Secure the cap and shake vigorously for 30 seconds.
3. **Pour:** Pour the "rinsate" into the sprayer tank to be used on the field (never pour on the ground or into drains).
4. **Repeat:** Perform this 3 times.
5. **Puncture:** Use a tool to punch holes in the container so it cannot be reused for water or food storage.

3. Spill Response & Management

Every regional warehouse must maintain a **Spill Kit** containing:

- Absorbent material (Sawdust, sand, or commercial "kitty litter").
- Heavy-duty chemical-resistant gloves and goggles.
- Broom and shovel (designated for chemical use only).
- Heavy-duty "Hazardous Waste" disposal bags.

Action Steps:

1. **Contain:** Stop the leak and encircle the spill with sand/sawdust.
2. **Absorb:** Cover the liquid completely with absorbent material.
3. **Collect:** Sweep the material into a hazardous waste bag and seal it.
4. **Label:** Mark the bag clearly with the chemical name and date.

4. Management of Expired/Obsolete Stocks

Expired chemicals are a high-risk liability. The Warehouse Manager must:

- **The "Red Zone":** Move expired stock to a clearly marked, locked "Quarantine Area" separate from active inventory.
- **Inventory Audit:** Report the quantity and batch numbers to the National Project Implementation Unit (PIU) quarterly.
- **Professional Disposal:** Under no circumstances should field staff burn or bury expired pesticides. Disposal must be handled by a **NESREA-certified** hazardous waste contractor.

5. Prohibited Disposal Practices

Field staff and warehouse personnel are strictly forbidden from:

- **Burning:** Pesticide combustion releases toxic dioxins into the air.
- **Burying:** Leads to direct contamination of the water table (aquifers).
- **Dumping:** Discharging into streams, "fadama" lands, or irrigation canals.
- **Repurposing:** Giving empty containers to community members for household use.

6. Documentation & Logbook

Each warehouse must maintain a **Waste Disposal Log** tracking:

- Date of disposal.
- Type and quantity of waste.
- Method of disposal (e.g., "Triple Rinsed & Punctured" or "Picked up by [Contractor Name]").
- Signature of the Safeguards Officer.

Annex 6: NESREA Contractor Waste Pickup & Manifest Checklist

This checklist is the final link in the chain of custody for hazardous agricultural waste. It ensures that when a **NESREA-certified contractor** arrives at an AGROW regional warehouse, the handover is documented, legal, and safe.

Project: AGROW | **Warehouse Location:** _____ | **Date:** _____

Contractor Company: _____ | **NESREA License No:** _____

Vehicle Registration: _____ | Driver Name: _____

Section 1: Documentation & Compliance (The "Paper Trail")

- [ ] **Validity:** Verify the contractor's NESREA permit for "Hazardous Waste Collection and Transportation" is not expired.
- [ ] **Waste Manifest:** Ensure a 3-part manifest is present (One for the Warehouse, one for the Transporter, one for the Final Disposal Site).
- [ ] **Emergency Plan:** Does the driver have a written "Spill Contingency Plan" inside the vehicle?

Section 2: Waste Inspection (The "Cargo")

- [ ] **Segregation:** Is the waste properly sorted? (e.g., Expired chemicals separated from empty containers).
- [ ] **Containment:** Are all liquid wastes in leak-proof, sealed drums?
- [ ] **Integrity Check:** Are all plastic containers punctured/crushed (as per the Triple Rinse protocol) to prevent reuse?
- [ ] **Labeling:** Does every bag/drum have a "HAZARDOUS WASTE" label with the chemical name and date of pickup?

Section 3: Loading & Transport Safety

- [ ] **PPE Compliance:** Are contractor staff wearing chemical-resistant gloves, steel-toed boots, and high-visibility vests?
- [ ] **Vehicle Suitability:** Is the vehicle bed lined or designed to contain potential leaks during transit?
- [ ] **Placarding:** Does the vehicle display the "Class 6" (Toxic/Infectious) or "Class 9" (Miscellaneous Danger) placards?
- [ ] **Securing:** Is the load strapped down to prevent movement on rough Savanna roads?

Section 4: Destination & Final Disposal

- **Designated Disposal Site:** _____
- **Planned Disposal Method:** * [ ] High-Temperature Incineration (Recommended for expired pesticides)
    - [ ] Engineered/Secured Landfill (For treated solids)
    - [ ] Chemical Neutralization

Section 5: Final Authorization

"I hereby certify that the waste described above has been inspected, properly loaded, and is being transported to a licensed facility for final disposal in accordance with NESREA and World Bank ESS3 guidelines."

Role	Name	Signature	Time
Warehouse Manager			
Contractor Rep.			

Action Protocol for the Warehouse Manager

1. **Keep the Copy:** Retain the signed original in the "Environmental & Social Safeguards" file.
2. **Follow Up:** Within 14 days, request the **"Certificate of Destruction/Disposal"** from the contractor to close the loop on this batch of waste.
3. **Audit Alert:** If the contractor fails any of the "Section 1" or "Section 3" checks, **refuse the pickup** and notify the Project Implementation Unit (PIU).

Annex 7: AGROW Project Quarterly Warehouse Audit Report

This **Quarterly Warehouse Audit Report (QWAR)** is designed for the Project Implementation Unit (PIU) Safeguards Team to consolidate field data and ensure that all participating states are adhering to the **IPMP** and **ESS3** standards.

It transforms individual checklists into a high-level compliance dashboard.

Reporting Period: [ ] Q1 [ ] Q2 [ ] Q3 [ ] Q4 | **Year:** 2026

State: _____ | **Auditor Name:** _____

Warehouse Location: _____ | **Date of Audit:** _____

1. Executive Compliance Summary

Performance Indicator	Score (0-100%)	Status (Green/Yellow/Red)

Documentation & Record Keeping		
Pesticide Storage & Segregation		
Waste Management & Disposal		
Health, Safety & PPE Compliance		

2. Detailed Audit Findings

A. Documentation & Registry

- [ ] **Pesticide Register:** Is there a live, up-to-date log of all incoming/outgoing chemicals?
- [ ] **MSDS Availability:** Are Material Safety Data Sheets (MSDS) available and visible for every product stored?
- [ ] **Handover Manifests:** Are all "Contractor Waste Pickup Checklists" signed and filed for this quarter?
- [ ] **Certificates of Disposal:** Has the contractor returned certificates for all waste removed in the *previous* quarter?

B. Physical Storage Conditions

- [ ] **The "Red Zone":** Is the Quarantine Area for expired/damaged goods clearly marked and locked?
- [ ] **Secondary Containment:** Are liquid chemicals stored on pallets or bunded areas to prevent floor seepage?
- [ ] **Environmental Controls:** Is the warehouse well-ventilated and dry (critical for the Savanna heat)?
- [ ] **Signage:** Are the "Prohibited Behaviors" and "Safety Warning" posters displayed in local languages (Hausa/Yoruba/Igbo)?

3. Incident & Spill Tracking

- **Number of spills recorded this quarter:** _____
- **Were all spills handled using the designated protocol?** [ ] Yes [ ] No
- **Describe any major leakages or structural failures:**
  _____

4. Corrective Action Plan (CAP)

Use this section to list failures that must be addressed before the next site visit.

Non-Compliance Issue	Required Action	Responsible Party	Deadline
Example: Missing PPE for staff	*Purchase 10 sets of gloves/goggles*	*State Coordinator*	*14 Days*

5. Auditor's Recommendations

[ ] **Satisfactory:** Warehouse meets all World Bank and National standards.

[ ] **Improvement Required:** Minor gaps in documentation or housekeeping.

[ ] **Critical Non-Compliance:** Immediate suspension of chemical distribution recommended due to safety/environmental risks.

Auditor Signature: _____ **Warehouse Manager Signature:** _____

PIU Monitoring Protocol

1. **Data Entry:** PIU Safeguards Officers should upload these scores into a central project database to compare performance across states.
2. **Spot Checks:** The National PIU should conduct unannounced spot checks on "Red Status" warehouses within 30 days of the audit.
3. **Incentives:** States maintaining 100% "Green Status" for two consecutive quarters should be recognized in the AGROW Annual Progress Report.

Annex 8: Pesticide Disposal & Waste Management Protocol

This **Pesticide Disposal Protocol** is designed for the AGROW Project's regional warehouses to ensure compliance with **World Bank ESS3** and Nigerian **NESREA/NAFDAC** regulations. Proper disposal prevents the contamination of groundwater and soil, which is critical in the fragile Sudan and Sahel Savanna ecosystems.

1. Waste Categorization

All warehouse waste must be sorted into three distinct streams:

- **Tier 1: Hazardous Waste** (Expired pesticides, concentrated spills, contaminated soil).
- **Tier 2: Contaminated Packaging** (Empty plastic drums, metal canisters, used PPE).
- **Tier 3: Non-Hazardous Waste** (Cardboard outer boxes, paper manuals).

2. The "Triple Rinse" Procedure

To downgrade "Tier 2" plastic containers to manageable waste, all staff must perform the Triple Rinse immediately after a container is emptied:

1. **Fill:** Add clean water to the container (approx. 20% volume).
2. **Shake:** Secure the cap and shake vigorously for 30 seconds.
3. **Pour:** Pour the "rinsate" into the sprayer tank to be used on the field (never pour on the ground or into drains).
4. **Repeat:** Perform this 3 times.
5. **Puncture:** Use a tool to punch holes in the container so it cannot be reused for water or food storage.

3. Spill Response & Management

Every regional warehouse must maintain a **Spill Kit** containing:

- Absorbent material (Sawdust, sand, or commercial "kitty litter").
- Heavy-duty chemical-resistant gloves and goggles.
- Broom and shovel (designated for chemical use only).
- Heavy-duty "Hazardous Waste" disposal bags.

Action Steps:

1. **Contain:** Stop the leak and encircle the spill with sand/sawdust.
2. **Absorb:** Cover the liquid completely with absorbent material.
3. **Collect:** Sweep the material into a hazardous waste bag and seal it.
4. **Label:** Mark the bag clearly with the chemical name and date.

4. Management of Expired/Obsolete Stocks

Expired chemicals are a high-risk liability. The Warehouse Manager must:

- **The "Red Zone":** Move expired stock to a clearly marked, locked "Quarantine Area" separate from active inventory.
- **Inventory Audit:** Report the quantity and batch numbers to the National Project Implementation Unit (PIU) quarterly.
- **Professional Disposal:** Under no circumstances should field staff burn or bury expired pesticides. Disposal must be handled by a **NESREA-certified** hazardous waste contractor.

5. Prohibited Disposal Practices

Field staff and warehouse personnel are strictly forbidden from:

- **Burning:** Pesticide combustion releases toxic dioxins into the air.
- **Burying:** Leads to direct contamination of the water table (aquifers).
- **Dumping:** Discharging into streams, "fadama" lands, or irrigation canals.
- **Repurposing:** Giving empty containers to community members for household use.

6. Documentation & Logbook

Each warehouse must maintain a **Waste Disposal Log** tracking:

- Date of disposal.
- Type and quantity of waste.
- Method of disposal (e.g., "Triple Rinsed & Punctured" or "Picked up by [Contractor Name]").
- Signature of the Safeguards Officer.

Annex 9: Urgent Notice of Critical Non-Compliance – Warehouse Audit

This draft is intended to be sent by the **National Project Coordinator** to the **State Project Coordinator**. Given the "Critical" status, the tone is professional, urgent, and focused on the risks to the World Bank funding and community safety.

To: State Project Coordinator, [Insert State Name] **From:** National Project Implementation Unit (NPIU) – AGROW Project **Date:** January 26, 2026

Subject: URGENT: Suspension of Distribution and Notice of Critical Non-Compliance at [Insert Warehouse Location]

Dear [Coordinator Name],

Following the Quarterly Warehouse Audit conducted on **[Insert Date]**, I am writing to formally notify you that the regional warehouse at **[Insert Location]** has received a **CRITICAL NON-COMPLIANCE** rating.

Under the Environmental and Social Management Framework (ESMF) and the Integrated Pest Management Plan (IPMP) of the AGROW Project, a "Critical" rating indicates a significant breach of World Bank Environmental and Social Standards (**ESS3** and **ESS4**) and Nigerian statutory regulations (NESREA/NAFDAC).

Key Findings of Concern

The audit identified the following high-risk violations:

- **[Insert Major Finding 1, e.g., Unsecured expired pesticides in general storage]**
- **[Insert Major Finding 2, e.g., Evidence of illegal disposal of chemical containers in local water bodies]**
- **[Insert Major Finding 3, e.g., Complete absence of PPE for field staff and warehouse handlers]**

Mandatory Corrective Actions

Effective immediately, the following actions are required:

1. **Immediate Suspension:** All distribution of agrochemicals from this facility must cease until a follow-up audit confirms that corrective measures are in place.
2. **Quarantine of Stock:** All expired or damaged materials must be moved to a locked, segregated "Red Zone" within 48 hours.
3. **Corrective Action Plan (CAP):** Your office is required to submit a detailed response and remediation timeline to the NPIU within **five (5) working days**.

Implications

Failure to rectify these issues within the stipulated timeframe poses a severe risk to the health of participating smallholder farmers and the local environment. Furthermore, documented non-compliance of this magnitude may lead to the **temporary withholding of project disbursements** for Component 2 activities in your state, as per the Project Appraisal Document (PAD).

We are committed to supporting your team in achieving compliance. Our National Safeguards Specialists are available to provide immediate technical guidance to assist in the remediation process.

Please acknowledge receipt of this letter and confirm the immediate suspension of distribution activities.

Sincerely,

[Name] National Project Coordinator AGROW Project – FMAFS

Annex 10: AGROW Safeguards Compliance Remediation Tracking Log (RTL)

This **Remediation Tracking Log (RTL)** serves as the formal "Evidence Folder" for the State Project Management Unit (SPMU). The State Coordinator must complete this log, attaching photo and documentary evidence for each item, before requesting a re-audit for the lifting of the suspension.

State: _____ | Warehouse Location: _____

Original Audit Date: _____ | Critical Non-Compliance Notice Ref: _____

Expected Completion Date: _____

1. Remediation Status Table

The State Coordinator must map every "Critical" and "Major" finding from the Audit Report to a specific action here.

Finding ID	Corrective Action Taken	Evidence Attached (e.g., Photos, Invoices, Logs)	Date Completed	Status (Open/Closed)
Example: NC-01	*Expired stock moved to a locked, caged area with "Hazardous" signage.*	*Photo of Red Zone; Copy of updated Inventory Log.*	*Jan 28*	*CLOSED*

2. Essential Evidence Checklist

To lift the suspension, the following **Minimum Evidence Package** must be submitted to the NPIU:

- [ ] **Photographic Evidence:** Clear, dated photos of the improved storage layout, the "Red Zone," and newly installed safety signage.
- [ ] **Procurement Receipts:** Invoices for the purchase of mandatory PPE (gloves, goggles, respirators) and Warehouse Spill Kits.
- [ ] **Training Attendance:** Sign-in sheets and photos of the emergency "re-induction" training conducted for warehouse staff.
- [ ] **Contractor Engagement:** A signed contract or service agreement with a NESREA-certified waste handler for the removal of existing hazardous waste.

3. Verification of "Red Zone" Protocol

To be filled out specifically for chemical management failures:

- **Total Volume of Expired Pesticides Quarantined:** _____ Liters/Kg
- **Is the Quarantine Area locked?** [ ] Yes [ ] No
- **Is the key held by a designated Safety Officer?** [ ] Yes [ ] No

4. State Coordinator's Declaration

"I, the undersigned State Project Coordinator, certify that the remediation actions listed above have been fully implemented in accordance with the AGROW IPMP and ESMF. I understand that any false reporting here may lead to permanent suspension of the state's participation in Component 2 activities."

Signature: _____ Date: _____

5. NPIU Re-Audit Verdict (For National PIU Use Only)

- **Desktop Review Result:** [ ] Satisfactory [ ] Insufficient Evidence
- **Site Verification Result:** [ ] Pass (Suspension Lifted) [ ] Fail (Suspension Continues)
- **Auditor Name: _____ Signature: _____**

Submission Instructions

- **Digital Submission:** Upload the RTL and all high-resolution image evidence to the **AGROW Safeguards Portal**.
- **Physical Submission:** One hard copy must be kept at the warehouse site for final inspection by the National Safeguards Team.

Annex 11: Formal Request for Re-Audit and Lifting of Suspension

This formal request serves as the "green light" from the State Project Management Unit (SPMU) to the National PIU, indicating that the warehouse is ready for inspection. It should be accompanied by the **Remediation Tracking Log (RTL)** and all supporting evidence.

To: The National Project Coordinator (NPC), AGROW Project **From:** The State Project Coordinator (SPC), [Insert State Name] **Date:** [Insert Date] **Ref No:** AGROW/[State]/RE-AUDIT/[Year]/[00X]

Subject: SUBMISSION OF REMEDIATION EVIDENCE AND FORMAL REQUEST FOR RE-AUDIT OF [INSERT WAREHOUSE LOCATION]

Dear Sir/Ma,

I refer to the **Notice of Critical Non-Compliance** dated **[Insert Date of Notice]**, which led to the temporary suspension of agricultural input distribution at the **[Insert Warehouse Location]**.

I am pleased to inform the National Project Implementation Unit (NPIU) that we have successfully addressed the identified environmental and social safeguard gaps. Our team has conducted a comprehensive overhaul of the warehouse protocols to align with the **Integrated Pest Management Plan (IPMP)** and **World Bank ESS3/ESS4** standards.

Summary of Remediation Actions

In accordance with the agreed **Corrective Action Plan (CAP)**, the following milestones have been achieved:

- **Physical Infrastructure:** The storage area has been reorganized to include secondary containment for liquids and a secured "Red Zone" for obsolete stocks.
- **Safety Equipment:** Full sets of Personal Protective Equipment (PPE) and chemical spill kits have been procured and are now available on-site.
- **Personnel Training:** All warehouse and field staff have undergone mandatory re-training on chemical safety, spill response, and the Project Code of Conduct.
- **Legal Compliance:** A contract has been formalized with a NESREA-certified waste handler for the removal of all hazardous waste.

Attachments

To support this request, please find the following documents attached:

1. **Completed Remediation Tracking Log (RTL):** Detailing specific actions taken for each audit finding.
2. **Evidence Folder:** Containing dated photographs, procurement receipts, and training attendance sheets.
3. **NESREA Certification:** A copy of the waste contractor's current operating license.

Prayer for Re-Audit

Based on the full closure of the "Critical" findings, we hereby request a **Physical Re-Audit** of the facility by the National Safeguards Team at your earliest convenience. We are confident that the current status of the warehouse meets the project's stringent safety requirements.

We look forward to your positive response and the subsequent lifting of the suspension to allow for the resumption of support to our smallholder farmers.

Sincerely,

[Name] State Project Coordinator AGROW Project – [Insert State] SPMU

Cc:

- National Environmental Safeguards Specialist
- National Social Safeguards Specialist
- World Bank Task Team Leader (For Information)

Final Documentation Tip

Ensure that the **Evidence Folder** is organized digitally into sub-folders that match the "Finding ID" in the Remediation Tracking Log. This makes the NPIU's review process much faster.

Annex 12: Safeguards Compliance Closure Report (SCCR)

This **Safeguards Compliance Closure Report** is the final document in the accountability chain. It is drafted by the Federa Project Implementation Unit (FPIU) and submitted to the World Bank Task Team Leader (TTL). Its purpose is to provide the "No Objection" basis for resuming activities and to document that the project's environmental and social risks are once again under control.

Project Name: Nigeria Sustainable Agricultural Value Chains for Growth (AGROW)

Project ID: P17xxxx | **Report Date:** [Insert Date]

Subject State: [Insert State Name] | **Facility:** [Insert Warehouse Location]

Incident Type: Critical Non-Compliance (ESS3/ESS4/IPMP)

1. Executive Summary

On **[Date of Original Audit]**, a critical non-compliance was recorded at the **[Location]** warehouse, leading to an immediate suspension of activities. Following a rigorous remediation process by the State Project Management Unit (SPMU) and a subsequent verification audit by the NPIU on **[Date of Re-Audit]**, this report confirms that all "Critical" and "Major" findings have been satisfactorily closed.

The FPIU hereby recommends the lifting of the suspension for Component 2 activities in [State Name].

2. Remediation Overview

The following table summarizes the closure status of the non-compliance items:

Safeguard Area	Initial Finding	Remediation Action Taken	Verification Method	Status
ESS3: Chemical Safety	Unsecured expired stocks.	Segregated "Red Zone" created with secondary containment.	Site Inspection & Photo Log	**CLOSED**
ESS4: OHS	Lack of PPE for staff.	Full PPE kits procured and distributed to all staff.	Procurement Audit & Interview	**CLOSED**
IPMP: Disposal	Illegal container reuse.	Triple-rinse training + NESREA contractor engagement.	Training Records & Contract	**CLOSED**
ESS10: Training	Lack of staff awareness.	Mandatory re-induction on CoC and VAPP Act protocols.	Attendance Sheets	**CLOSED**

3. Verification Results

The NPIU National Safeguards Specialist conducted a site verification on **[Date]**. Key observations included:

- **Infrastructure:** 100% compliance with storage and segregation guidelines.
- **Knowledge:** Staff demonstrated correct spill response procedures during a live drill.
- **Safeguards Documentation:** The Warehouse Waste Log and Incident Register are now up-to-date and correctly maintained.

4. Sustainability and Monitoring Plan

To prevent a recurrence of these issues, the NPIU has instituted the following:

- **Enhanced Monitoring:** This specific facility will be subject to monthly unannounced spot checks for the next two quarters.
- **Performance Metric:** Compliance scores will now be tied to the State's quarterly budget release for agricultural modernization.
- **Digital Integration:** The warehouse has been onboarded to the **AGROW Digital Inventory System** for real-time tracking of chemical shelf-life.

5. Conclusion and Recommendations

Based on the evidence provided and verified, the NPIU concludes that the **[State]** warehouse is now operating in full alignment with the World Bank Environmental and Social Framework (ESF).

Recommendation: The NPIU requests the World Bank's concurrence to lift the suspension of distribution and resume all project-financed activities in the affected zone.

6. Sign-offs

Role	Name	Signature	Date
Environmental Specialist (NPIU)			
Social Specialist (NPIU)			
National Project Coordinator			

Next Steps for the World Bank TTL

1. **Review:** Conduct a desktop review of this Closure Report and attached Evidence Folder.
2. **Concurrence:** Issue a formal "No Objection" or "Acknowledgment" letter to the FMAFS.
3. **Lifting of Suspension:** Officially update the project's "Safeguards Tracking System" to reflect the "Satisfactory" rating.

Annex 13: Knowledge Sharing: Lessons Learned from the [State Name] Warehouse Suspension

This **Lessons Learned Summary** is designed as a knowledge-sharing tool for the AGROW Project. Sharing the "why" behind the recent suspension helps other State Coordinators (SPCs) proactively identify similar risks in their own warehouses before they escalate to "Critical" status.

1. The Cost of Non-Compliance

The recent suspension in [State Name] resulted in a **21-day halt** in input distribution during a critical planting window.

- **Impact:** Delayed crop cycles for 5,000+ smallholders.
- **Reputation:** Strained relationships with private off-takers waiting for harvest commitments.
- **Financial:** Additional costs incurred for emergency remediation, re-audits, and certified waste disposal.

2. Top 3 Root Causes & Preventive Actions

Lesson A: "Storage is not just Shelter"

- **The Issue:** Warehouse managers treated the facility as a simple storage shed rather than a controlled environment for hazardous materials.

- **The Fix: Segregation is Mandatory.** You must separate food-grade items from pesticides, and separate "expired" from "active" stock using physical barriers (cages or separate rooms).

Lesson B: "PPE is an Investment, Not an Expense"

- **The Issue:** PPE was either missing or "locked away for safekeeping," leading to staff handling chemicals in civilian clothes.
- **The Fix: Daily Gear Checks.** PPE must be accessible, and its use is non-negotiable. If a staff member is found without PPE, the supervisor must be held accountable.

Lesson C: "The Paper Trail Protects the Project"

- **The Issue:** While some "Triple Rinsing" was happening, there were no logs to prove it. Without a manifest or NESREA certificate, the project is legally liable for environmental damage.
- **The Fix: Log Everything.** If it isn't recorded in the Warehouse Registry, it didn't happen in the eyes of the World Bank.

3. Proactive "Red Flag" Checklist for SPCs

SPCs should use this list during their weekly site visits to avoid an NPIU suspension.

Red Flag	Immediate Action
Leakage/Odors: Strong chemical smells or stained floors.	Deploy Spill Kit immediately; identify the source.
Unlabeled Containers: Bags/drums with no name or date.	Quarantine immediately; identify via batch tracking.
Missing Records: Incomplete waste or distribution logs.	Halt activity for 2 hours to update all registries.
Personnel Safety: Staff working without boots/gloves.	Send staff home or provide PPE before work resumes.

4. Best Practice: The "Safe Warehouse" Standard

Moving forward, all AGROW warehouses must adopt the **"Three S" Standard**:

1. **Safety:** Full PPE and Spill Kits available and functional.
2. **Segregation:** Clear zones for Active, Expired, and Damaged stock.
3. **Signage:** Multilingual safety and SEA/SH posters (Hausa, Yoruba, Igbo) clearly visible to all laborers.

Next Steps for State Coordinators

- **Conduct a Self-Audit:** Within the next 7 days, use the **Quarterly Warehouse Audit Template** to grade your own facility.
- **Report Gaps:** If you find gaps, report them to the NPIU now. A **self-reported gap** is an "Opportunity for Improvement"; a **hidden gap** found during an audit is a "Critical Non-Compliance."

Annex 14: TECHNICAL FACT SHEET: Economic Thresholds (ET) for AGROW Crops

Purpose

The **Economic Threshold (ET)** is the "Action Point." It is the pest density at which the cost of crop damage will exceed the cost of the control measure. **Do not spray unless these thresholds are met.**

1. Grains & Cereals (Rice, Maize, Soybean)

Crop	Target Pest	Economic Threshold (Action Point)	Immediate Non-Chemical Action
Maize	**Fall Armyworm (FAW)**	**Early Growth:** 15% to 20% of plants show fresh damage. **Late Growth:** 25% to 30% of plants show damage.	Manual removal of egg masses; apply sand/ash/neem into the whorl.
Rice	**Stem Borers**	**Vegetative:** 5% "Dead Hearts" (dried central shoots). **Flowering:** 1 to 2 "Whiteheads" per	Light traps to catch moths; balanced Nitrogen (avoid over-fertilizing).

		square meter.	
Soybean	**Pod Borers**	**Flowering/Podding:** 2 to 3 larvae per meter of row.	Intercropping with maize (Push-Pull); conservation of spiders.

2. Roots & Tubers (Cassava)

Crop	Target Pest	Economic Threshold (Action Point)	Immediate Non-Chemical Action
Cassava	Mealybugs	**Presence:** Visible white "wax" on 10% of plant tips in the field.	Use of clean, certified cuttings; release of *A. lopezi* (parasitoid wasps).
Cassava	Green Mites	**Symptoms:** Yellow spotting (chlorosis) on 20% of top leaves.	Early planting to ensure crop vigor before the dry season peaks.

3. Cash Crops (Cocoa & Cashew)

Crop	Target Pest	Economic Threshold (Action Point)	Immediate Non-Chemical Action
Cocoa	**Mirids (Capsids)**	**Observation:** 5 to 10 mirids found per 10 trees inspected.	**Pruning:** Increase sunlight and airflow to reduce mirid habitat.
Cashew	**Stem/Root Borers**	**Presence:** Visible "frass" (sawdust) or gum oozing from 5% of trees.	Manual removal of larvae using a wire; coating trunk with lime/clay.

Scouting Protocol for Extension Workers

To get an accurate count for these thresholds, follow the **5-Point Check**:

1. Enter the field at least 5 meters from the edge.
2. Walk in a **"W" pattern** through the field.
3. Stop at **5 different points**.
4. At each point, inspect **10 random plants** (Total = 50 plants).
5. Calculate the percentage: $(Total \text{ Infested Plants} \div 50) \times 100 = \text{Field Infestation \%}$.

The "Last Resort" Protocol

If the threshold **is exceeded**, follow the **Safe Chemical Choice** hierarchy:

- **Step 1:** Use botanical pesticides (e.g., Neem oil, Chili-soap mix).
- **Step 2:** Use World Bank **Class U or Class III** (Green/Blue label) chemicals.
- **Step 3:** Ensure the farmer is wearing **full PPE** before application.

Annex 15: AGROW Project Pesticide Procurement Vetting Checklist

This **Pesticide Procurement Checklist** is designed to ensure that all agrochemicals purchased with **AGROW Project** funds meet the stringent safety and environmental requirements of the World Bank and the Nigerian Government. State Project Implementation Units (SPIUs) must complete this checklist for every vendor before a contract is awarded.

State: _____ | Procurement Ref #: _____

Vendor Name: _____ | Date of Assessment: _____

1. Legal & Regulatory Compliance

- [ ] **NAFDAC License:** Does the vendor possess a current and valid NAFDAC License to manufacture or distribute agrochemicals?
- [ ] **Product Registration:** Is every specific product being procured registered with NAFDAC? (Request copies of registration certificates).
- [ ] **NESREA Compliance:** Does the vendor have a "Permit to Operate" from NESREA for the handling and storage of hazardous chemicals?

2. Technical Specifications (The "Safety Filter")

- [ ] **WHO Toxicity Class:** Are all products confirmed to be **WHO Class III (Slightly Hazardous)** or **Class U (Unlikely to present acute hazard)**?
- [ ] **Prohibited List:** Have you verified that none of the products appear on the World Bank's **Class Ia/Ib** or **POP (Stockholm Convention)** lists?
- [ ] **Active Ingredient Verification:** Does the concentration of the active ingredient match the AGROW project technical specifications?

3. Labeling & Packaging Requirements

- [ ] **Multilingual Labels:** Do the product labels include instructions and safety warnings in English and at least one local language (**Hausa, Yoruba, or Igbo**)?
- [ ] **Clarity of Instructions:** Are application rates, withholding periods (pre-harvest intervals), and first-aid instructions clearly legible?
- [ ] **Packaging Integrity:** Is the packaging durable enough to withstand transport to remote Savanna or Forest regions without leaking?
- [ ] **Expiry Date:** Is there at least **18 months** of shelf-life remaining from the date of delivery?

4. Safety & Stewardship Support

- [ ] **Material Safety Data Sheets (MSDS):** Has the vendor provided a comprehensive MSDS for every chemical? (These must be distributed to the regional warehouses).
- [ ] **PPE Provision:** Is the vendor capable of supplying matching **Personal Protective Equipment (PPE)** for the chemicals they sell (e.g., specific filters for respirators)?
- [ ] **Training Support:** Is the vendor willing to provide technical training for AGROW extension workers on the specific application and calibration of their products?

5. Logistics & Waste Management

- [ ] **Safe Delivery:** Does the vendor have a dedicated transport plan that avoids carrying chemicals alongside food or livestock?
- [ ] **Container Return Policy:** Does the vendor have a mechanism for collecting empty containers, or are they willing to coordinate with the project's **NESREA-certified** waste contractors?

Final Vetting Decision

- [ ] **APPROVED:** Vendor meets all legal, technical, and safety requirements.
- [ ] **PROVISIONAL APPROVAL:** Minor documentation gaps (e.g., missing MSDS) to be resolved within 5 days.
- [ ] **REJECTED:** Vendor failed on toxicity class, NAFDAC registration, or legal status.

Procurement Officer Signature: _____ | **Date:** _____

Safeguards Officer Signature: _____ | **Date:** _____

Implementation Note

The SPIU should maintain a **"Preferred Vendor List"** based on these audits. Any vendor found to be supplying counterfeit or unregistered products during the implementation phase should be blacklisted from the project immediately.

Annex 16: Environmental, Health, And Safety (EHS) Compliance Clause for Agrochemicals

This **Standard Environmental and Social (E&S) Compliance Clause** is designed to be inserted into the "Special Conditions of Contract" section of any procurement agreement. It legally binds the vendor to the safety and environmental standards required by the AGROW Project and the World Bank.

1. Mandatory Regulatory Compliance

The Vendor represents and warrants that all products supplied under this Contract are:

- **NAFDAC Registered:** Currently registered with the National Agency for Food and Drug Administration and Control (NAFDAC) for use in Nigeria.
- **WHO Classification:** Categorized exclusively as **WHO Class III (Slightly Hazardous)** or **Class U (Unlikely to present acute hazard)**. The supply of WHO Class Ia, Ib, or II pesticides is strictly prohibited and shall constitute a material breach of contract.
- **International Conventions:** Free from any substances listed under the **Stockholm Convention** (Persistent Organic Pollutants) or the **Rotterdam Convention**.

2. Quality and Packaging Standards

The Vendor shall ensure that:

- **Packaging Integrity:** All chemicals are delivered in original, tamper-proof, and leak-proof containers suitable for transport to remote rural locations.

- **Multilingual Labeling:** Every container bears a legible label in **English** and at least one relevant local language (**Hausa, Yoruba, or Igbo**) detailing application rates, safety precautions, and first-aid measures.
- **Shelf Life:** All products must have a minimum remaining shelf life of **eighteen (18) months** from the date of delivery to the Project warehouse.

3. Stewardship and Technical Support

The Vendor shall provide, at no additional cost to the Project:

- **Safety Documentation:** One (1) comprehensive **Material Safety Data Sheet (MSDS)** for every product delivered to each regional warehouse.
- **Technical Induction:** A minimum of one (1) technical training session for Project Extension Workers on the specific calibration, application, and emergency spill response for the supplied products.
- **PPE Compatibility:** Advice on the specific types of Personal Protective Equipment (PPE) required for the safe handling of the supplied active ingredients.

4. Waste Management and Accountability

- **Container Stewardship:** The Vendor agrees to coordinate with the Project's certified waste management contractors to facilitate the recovery and safe disposal of empty containers where a "Take-Back" scheme is operational.
- **Audit Rights:** The Project Implementation Unit (PIU) reserves the right to conduct unannounced inspections of the Vendor's storage facilities to verify compliance with safety and environmental standards.

5. Indemnification and Sanctions

- **Counterfeit Goods:** If any product supplied is found to be counterfeit, unregistered, or incorrectly labeled, the Vendor shall be liable for the full cost of safe disposal and immediate replacement, without prejudice to other legal remedies.
- **Blacklisting:** Violation of any safety or environmental standard contained herein may result in the immediate termination of this Contract and the **blacklisting** of the Vendor from future World Bank-financed procurement opportunities.

Implementation Tip for Procurement Officers

When issuing a Purchase Order (PO), ensure the **NAFDAC Registration Numbers** for each item are listed directly on the order. This makes it much easier for the Warehouse Manager to verify the shipment upon arrival using the **Warehouse Audit Checklist**.

Annex 17: Vendor Self-Declaration Of E&S Compliance Form

This **Vendor Self-Declaration Form** is a critical pre-qualification document. By signing this, the vendor provides a legal guarantee that their products and operations meet the AGROW Project's strict Environmental and Social (E&S) standards. Any false declaration found during the vetting process will be grounds for immediate disqualification.

Project: Nigeria Sustainable Agricultural Value Chains for Growth (AGROW) **Solicitation/Bid Ref:** _____ **Legal Name of Vendor:** _____

1. Product Safety & Legal Status

I/We, the undersigned, hereby declare that:

- **NAFDAC Registration:** Every pesticide/agrochemical offered in this bid is currently registered with NAFDAC. We have attached valid copies of the NAFDAC Registration Certificates for each product.
- **Toxicity Compliance:** None of the products supplied fall under **WHO Hazard Class Ia (Extremely Hazardous)** or **Class Ib (Highly Hazardous)**. All products align with the Project's preference for Class III (Slightly Hazardous) or Class U (Unlikely to present hazard).
- **Banned Substances:** None of the products contain active ingredients prohibited by the **Stockholm Convention** (POPs) or the **Rotterdam Convention**.

2. Quality & Stewardship Commitments

I/We agree to:

- **Labeling:** Provide packaging with clear, legible labels in **English** and at least one local Nigerian language (**Hausa, Yoruba, or Igbo**).

- **Documentation:** Provide a comprehensive **Material Safety Data Sheet (MSDS)** for every product delivered.
- **Training:** Provide a technical induction to AGROW Extension Workers on the safe application and spill management of our products at no additional cost.

3. Warehouse & Transport Safety

- **Storage:** Our storage facilities comply with **NESREA** standards for hazardous materials management.
- **Transport:** We will ensure that agrochemicals are transported in dedicated vehicles, never alongside food, livestock, or passenger cabin occupants.

4. Ethical Conduct & Environmental Responsibility

- **Container Management:** We will support the Project's "Triple Rinse" awareness efforts and coordinate with designated waste contractors for the disposal of empty containers.
- **Anti-Counterfeit:** We guarantee the authenticity of all goods and acknowledge that any supply of counterfeit or adulterated products will lead to immediate contract termination and referral to law enforcement.

5. Declaration & Signature

"I certify that I am an authorized representative of the firm named above and that the information provided in this declaration is true and accurate. I understand that any false statement or failure to comply with these Environmental and Social requirements during the contract period will result in disqualification, contract termination, and/or blacklisting from future World Bank-financed projects."

Name of Authorized Officer: _____

Designation: _____

Signature & Official Stamp: _____

Date: _____

Checklist for Bid Submission (To be attached to this form):

- [ ] Copy of NAFDAC Manufacturer/Distributor License.
- [ ] Copies of NAFDAC Registration Certificates for *each* proposed product.
- [ ] Sample Label/Packaging artwork showing local language safety instructions.
- [ ] Copies of current NESREA Environmental Audit/Permit for storage facilities.

Annex 18: Poisoning Emergency Action Card

This **Poisoning Emergency Action Card** is designed as a double-sided, pocket-sized reference (approx. 8.5cm x 5.5cm). It should be laminated to withstand field conditions and distributed to every farmer during their initial AGROW safety training.

SIDE A: EMERGENCY FIRST AID (IMMEDIATE ACTION)

🆘 STOP! ACT FAST! 🆘

1. REMOVE FROM DANGER: Move the person away from the sprayed area into **fresh air**. **2. IF ON SKIN:** Strip off all contaminated clothes. Wash skin with **lots of cold water and soap** for 15 minutes. **3. IF IN EYES:** Hold eyes open and rinse with clean water for **15 minutes**. **4. IF SWALLOWED: DO NOT** make them vomit unless the bottle says so. If they are awake, rinse their mouth with water. **5. IF NOT BREATHING:** Lay them on their side (Recovery Position) and keep them warm.

⚠ DO NOT give milk or oil to the victim!

SIDE B: CLINIC & DOCTOR INFORMATION

🏥 TAKE TO THE HOSPITAL IMMEDIATELY!

Give this card and the Pesticide Bottle/Label to the Doctor.

SYMPTOMS TO WATCH FOR:

- Extreme sweating, drooling, or pinpoint pupils.
- Muscle twitching or severe stomach cramps.
- Difficulty breathing or sudden confusion.

PROJECT EMERGENCY CONTACTS:

- **AGROW Extension Officer: _____**
- **Nearest Health Center: _____**
- **National Poison Center (if available): _____**

Instructions for Extension Workers:

1. **Fill in the Blanks:** Use a permanent marker to write the local Extension Officer's phone number and the nearest hospital's name on the card before handing it to the farmer.
2. **The "Bottle Rule":** Stress to the farmer that they must **never** go to the hospital without the chemical bottle or the label—the doctor needs to see the **Active Ingredient** to give the right treatment.

Annex 19: The 24-Hour Notice Neighborhood Safety Script

This script is designed to be simple and culturally appropriate for rural Nigerian communities. Extension workers should encourage farmers to use it as a "Good Neighbor" tool to maintain social harmony and prevent accidental exposure to bystanders, livestock, and water sources.

How to Use This Script:

- **When:** 24 hours before you plan to spray.
- **Who:** All neighbors whose farms or houses touch your field boundaries.
- **Goal:** To give them time to cover wells, move animals, and keep children away.

1. The Greeting & Purpose

"Good morning/afternoon, neighbor [Name]. I am visiting to let you know that I am planning to apply a crop protection treatment on my [Maize/Rice/Cassava] field tomorrow morning, starting around [Time, e.g., 7:00 AM]."

2. The Safety Instructions

"I am using a project-approved product, but for the safety of your family and animals, please help me with the following tomorrow:"

- **Children:** "Please keep the children away from the boundary of my farm while I am spraying."
- **Water:** "If you have any open water pots or wells near our boundary, please keep them covered tomorrow morning."
- **Animals:** "If you can, please graze your goats/cattle on the other side of your farm tomorrow to avoid the mist."
- **Laundry:** "It is best not to hang any clothes to dry near our fence until the afternoon."

3. The "Wind Rule" Guarantee

"I will be watching the wind. If the wind is blowing toward your house or your sensitive crops, I will stop or wait until it is safe to continue. I want to make sure my spray stays only on my plants."

4. Closing & Contact

"If you have any concerns or need me to wait an extra hour for any reason, please let me know now. Thank you for your cooperation."

Local Language Translations (Key Phrases)

English	Hausa	Yoruba	Igbo
I will spray tomorrow.	Zan yi feshin magani gobe.	Mo fẹ́ fúnpun ogùn lola.	Aga m agba ogwu echi.
Keep children away.	A kiyaye yara da wurin.	Ẹ mọ́ jẹ́ kí àwọn ọmọdé súnmọ́ bẹ̀.	Kwụsị ụmụaka ịbịaru nso.
Cover your water.	A rufe ruwan sha.	Ẹ bo omi yín mọ́lẹ̀.	Kpuchie mmiri unu.
Move your animals.	A kawar da dabbobi.	Ẹ kó àwọn ẹran yín kúrò.	Kpafuo anụmanụ unu.

Implementation Tip for the AGROW Project:

If a farmer is illiterate or uncomfortable speaking, the Project should provide a **"Safety Flag"** (a simple red or yellow cloth on a stick). The farmer can place the flag at the edge of the field 24 hours before spraying as a visual signal to the community.

Annex 20: "The Flag of Safety" Radio Jingle

This radio jingle is designed to be upbeat, catchy, and informative. It uses the "Call and Response" style common in Nigerian community radio to ensure the message sticks.

Target Language: English (with Pidgin/Local flavor)

Duration: 45 Seconds

Music: Upbeat, traditional drumbeat (Gangan/Djembe) or local highlife.

Character	Audio / Dialogue	Action / Sound Effect (SFX)
Old Farmer	(Frustrated) "Ah-ah! Why all this yellow cloth everywhere? Is it a wedding or a naming ceremony?"	**SFX:** Sound of a hoe hitting the ground.
Young Farmer	(Cheerful) "No, Baba! That is the **AGROW Safety Flag**! It means something very important for our village."	**SFX:** Upbeat music swells slightly.
Old Farmer	"Safety flag? Tell me quick, my ears are open."	
Announcer	(Clear, Authority) "Listen well, people of [Community Name]! Whenever you see a **Yellow Flag** at the edge of a farm, it means the farmer will be spraying project-approved chemicals within 24 hours."	**SFX:** Echo effect on "Yellow Flag."
Young Farmer	"When you see that flag, keep your children away from the farm boundary. Cover your water pots. Move your goats and sheep to the other side!"	**SFX:** Sound of a goat bleating: *Meeeee!*
Announcer	"The flag is for your protection. Once the flag is gone, the field is safe again. AGROW farmers care for their neighbors!"	
Chorus	(Singing/Chanting) "See the flag, stay away! Safety first, throughout the day! AGROW project... for a better farm!"	**SFX:** Music reaches a climax.

Narrator	"A message from the AGROW Project Implementation Unit and the Federal Ministry of Agriculture. Safe farming, healthy living."	

Regional Language Variations for the Key Slogan

- **Hausa:** *"Idan ka ga tuta, ka kiyaye! Domin lafiyar ka da iyalin ka."* (When you see the flag, be careful! For your health and your family's.)
- **Yoruba:** *"Tí o bá rí àsìá, rántí ààbò rẹ! Ìlera l'ògùn ọrọ̀."* (When you see the flag, remember your safety! Health is wealth.)
- **Igbo:** *"I hụ ọkọlọtọ, kwụsị! Maka ahụ ike gị na ezinụlọ gị."* (When you see the flag, stop! For your health and your family's.)

This **Broadcaster's Guide** is designed to support local radio presenters during agricultural talk shows or community hour programs. It ensures that the "Safety Flag" jingle is backed by accurate, actionable information that addresses common community concerns.

Annex 21: The AGROW Safety Flag Initiative Broadcaster's Guide

Program Goal

To educate the public on how to coexist safely with modern agricultural practices and to reduce accidental exposure to crop protection products.

Talking Points for the Presenter

- **It's About Respect:** The flag isn't just a warning; it's a sign that the farmer respects their neighbors' health and water.
- **The 24-Hour Rule:** The flag goes up one day *before* spraying. This gives the village time to prepare.
- **Modern Farming:** AGROW uses "Green" and "Blue" label chemicals—they are safer than old chemicals, but they still require caution.

Frequently Asked Questions (FAQs) for Live Q&A

Q1: How long does the flag stay up?

- **Answer:** The farmer puts the flag up 24 hours before they start. It should stay up while they are spraying and for a few hours after they finish to let the mist settle. Once the flag is removed, it is safe to walk near the boundary again.

Q2: Is the food from a "Flagged Farm" safe to eat?

- **Answer:** Yes, but not immediately! Every chemical has a "Waiting Period" (Pre-Harvest Interval). AGROW farmers are trained to wait until the chemical has safely broken down before they harvest. The flag is for the *spray*, not the crop itself.

Q3: My neighbor put up a flag, but my well is right on the boundary. What should I do?

- **Answer:** Don't panic! First, cover your well with a tight lid or heavy plastic sheet. Second, talk to your neighbor. Under AGROW rules, they must maintain a **30-meter buffer zone** around domestic water. If they are too close, ask them to wait for a day with no wind.

Q4: Can I use the flag fabric for my own clothes after the farmer is done?

- **Answer:** No! The flag is a tool for the farm. It should stay with the farmer's equipment. Even though the flag isn't sprayed directly, it is best to keep farm tools separate from household items.

Call to Action (The "Wrap-Up")

"So, listeners, remember: A yellow flag is a sign of a responsible farmer. If you see it, keep your distance, cover your water, and keep our village healthy. If you have questions, visit your local AGROW Extension Office at [Local Address]."

Technical Tip for the Station Manager

- **Peak Times:** Play the jingle during the early morning (before farmers go to the field) and the evening (when families are gathered for dinner).
- **Interview Guests:** Invite a local **AGROW Safeguards Officer** to the studio for a 10-minute "Safety Special" to answer these FAQs live on air.

Annex 22: AGROW Project Seasonal Ipm Calendar (Rice & Maize)

This **Seasonal IPM Calendar** provides a visual timeline for State Coordinators and Extension Workers to synchronize pest management with Nigeria's bimodal rainfall patterns. By aligning controls with the crop cycle, we move from reactive "crisis management" to proactive "ecological management.

"**Phase 1: Pre-Season (Dry Season / Land Prep)**

Focus: Foundation and Prevention

Month	Activity	IPM Intervention
Jan - Feb	**Planning**	Review **NiMet Seasonal Climate Prediction**; select resistant varieties (e.g., TELA Maize, FARO Rice).
Feb - March	**Sanitation**	Clear crop residues from previous season to destroy overwintering stem borers.
March	**Procurement**	Purchase NAFDAC-registered "Green Label" inputs and inspect PPE kits.

Phase 2: Early Season (Start of Rains / Planting)

Focus: Cultural and Mechanical Controls

Month	Crop Phase	IPM Intervention
April - May	**Planting**	Use **Certified Seeds**; implement **Push-Pull** (Maize) or **SRI spacing** (Rice).
May - June	**Seedling**	**Scout weekly** for Fall Armyworm (FAW) egg masses; manual removal of pests.
June	**Vegetative**	Install **Pheromone Traps** (1 per ha) to monitor moth flights; Apply **Neem-based biopesticides**.

Phase 3: Mid-Season (Peak Rains / Growth)

Focus: Biological and Threshold-Based Control

Month	Crop Phase	IPM Intervention
July - Aug	**Tasseling / Tillering**	**Check Economic Thresholds (ET):** Only use synthetic chemicals if FAW damage > 20%.
August	**Grain Fill**	Monitor for **Rice Blast** (Fungal) during high humidity; ensure 30m water buffer zones.
Sept	**Reproductive**	Protect **Pollinators** (Bees) by avoiding morning spraying; ensure all waste logs are updated.

Phase 4: Late Season (End of Rains / Harvest)

Focus: Stewardship and Evaluation

Month	Activity	IPM Intervention
Oct - Nov	**Harvest**	Observe **Pre-Harvest Intervals (PHI)**; do not harvest until chemicals have degraded.
Nov - Dec	**Waste Mgmt**	**Triple Rinse** all empty containers; return to collection points for certified disposal.
December	**Review**	Update **"Lessons Learned"** for the next cycle based on this year's pest pressures.

The "Climate Trigger" Legend

- ⚠️ **Dry Spell Alert:** Scout for mites and aphids (they thrive in heat).
- 🌧️ **High Rainfall Alert:** Check for fungal blights and wash-off of biopesticides.
- 🌬️ **High Wind Alert: STOP ALL SPRAYING.** Risk of drift to community houses.

How to Use This Calendar at Farmer Field Schools (FFS)

1. **Print and Laminate:** Post this in the local Extension Office.

2. **The "Current Month" Sticker:** Every month, place a bright sticker on the current phase so farmers know exactly which IPM tool to use today.
3. **NiMet Integration:** Update the calendar dates annually based on the specific NiMet onset dates for your State (e.g., earlier in Delta, later in Kano).

Annex 23: AGROW Project Weekly Pest Scouting LOG

This **Weekly Scouting Log** is designed as a simple, durable field tool. By filling this out, the farmer creates a "Health Record" for their farm, which is required before any AGROW-funded chemical intervention can be approved.

Farmer Name: _____ | **State/LGA:** _____

Crop Type: [ ] Maize [ ] Rice [ ] Cassava [ ] Other: _____

Field Size: _____ Hectares | **Season:** Wet Season 2026

The "W-Walk" Instructions:

1. Walk through your field in a **W-shape**.
2. Stop at **5 different points**.
3. Check **10 plants** at each point (Total = 50 plants).
4. Record what you see below.

MONTHLY MONITORING TABLE (MAY – SEPTEMBER)

Week	Date	# of Plants with Damage (out of 50)	Main Pest Found (e.g., Worm, Fly, Fungus)	Action Taken (Hand-picking, Neem, or None)	Extension Officer Initials
May W1					
May W2					
May W3					
May W4					
Jun W1					
Jun W2					
Jun W3					
Jun W4					
Jul W1					
Jul W2					
Jul W3					
Jul W4					
Aug W1					
Aug W2					
Aug W3					
Aug W4					
Sep W1					
Sep W2					
Sep W3					
Sep W4					

Decision Guide (The "Stoplight" System)

- 🟢 **0–5 Plants Damaged: SAFE.** Keep cleaning the farm. Do nothing else.
- 🟡 **6–10 Plants Damaged: WARNING.** Start hand-picking or use Neem water. Call your Extension Officer.
- 🔴 **Over 10 Plants Damaged: ACTION POINT.** You have reached the Economic Threshold. Discuss "Green Label" options with your Extension Officer.

Farmer's End-of-Season Declaration

"I have scouted my farm weekly and only used chemicals when the Action Point was reached. I have recorded all activities truthfully."

Farmer Signature: _____ | Date: _____

Implementation Note for SPCs

These logs should be collected at the end of the season and stored at the State PIU. They serve as **evidence of compliance** during World Bank implementation support missions and environmental audits.

Annex 24: AGROW Project Monthly Scouting Report Summary

This **Monthly Scouting Report Summary** serves as the official data link between the field and the State Project Implementation Unit (SPIU). It allows State Coordinators to see real-time pest trends across different LGAs and ensures that safeguards are being actively monitored.

Reporting Month: _____ | State: _____

Extension Officer Name: _____ | Zone/LGA: _____

Total Farmers Covered: _____ | Total Hectares Monitored: _____

1. Pest Pressure Dashboard

Identify the top 3 pest threats observed across your assigned cluster this month.

Priority Value Chain	Primary Pest/Disease Observed	Average Infestation % (Across Cluster)	Severity Level (Low/Med/High)
Rice			
Maize			
Cassava			
Other (Cocoa/Soy)			

2. IPM Intervention Tracking

Quantify the non-chemical actions taken before synthetic pesticides were considered.

- **Cultural:** # of farmers who completed weeding/field sanitation: _____
- **Mechanical:** # of pheromone/light traps currently active in the field: _____
- **Biological:** # of farmers who applied Neem or other biopesticides: _____
- **Hand-Picking:** # of farmers engaged in manual egg-mass/larvae removal: _____

3. Safeguards & Compliance Monitoring

Verification of E&S standards during field visits.

Safeguard Metric	Yes	No	Comments / Corrective Actions
PPE Usage: Were all spraying farmers observed wearing full PPE?	[ ]	[ ]	
Buffer Zones: Were "No-Spray" zones (30m) maintained near water?	[ ]	[ ]	
Notice Given: Did farmers notify neighbors 24 hours in advance?	[ ]	[ ]	
Waste Mgmt: Were empty containers triple-rinsed and punctured?	[ ]	[ ]	

4. Critical Incident & Emergency Report

- **Reported Poisoning Incidents:** [ ] Yes [ ] No (If yes, attach incident report form).
- **Pest Outbreaks:** Any localized outbreaks requiring emergency NPIU attention?

---

5. Extension Officer's Recommendations

Based on this month's data, what is the priority for next month (e.g., more PPE, urgent NiMet alerts, or specific IPM training)?

Extension Officer Signature: _____ | Date: _____

Reviewed by (Safeguards Officer): _____ | Date: _____

Implementation Strategy for SPCs

- **Data Aggregation:** Use these summaries to create a **"State Pest Map"**. If three LGAs report high Fall Armyworm pressure, you can preemptively move biopesticide stocks to those areas.
- **Audit Trail:** These summaries are the first documents requested by the World Bank during **Implementation Support Missions (ISM)** to verify that the IPMP is a living document, not just a shelf-filing requirement.

Annex 25: AGROW Project State-Level Pest Alert

This **State-Level Pest Alert** is designed to be a rapid-response tool. When your Monthly Scouting Summaries show that infestation levels in a specific LGA or Zone are approaching the **Economic Threshold (ET)**, the State PIU should issue this alert to trigger immediate community action.

Alert Status: [ ] YELLOW (Monitor) | [ ] ORANGE (Action Needed) | [ ] RED (Emergency Outbreak)

Date Issued: _____ | **Valid Until:** _____

Affected LGAs/Zones: _____

1. THE THREAT: [Insert Pest Name, e.g., Fall Armyworm]

- **Observation:** Scouting reports show infestation has reached **[XX]%** in your area.
- **Risk:** If not managed this week, expected yield loss is **[XX]%**.
- **Target Crops:** [ ] Maize [ ] Rice [ ] Cassava [ ] Other: _____

2. IMMEDIATE FARMER ACTIONS (The IPM Response)

- **Scout Daily:** Every farmer must walk their field tomorrow morning. Look for [Insert specific symptom, e.g., "window-pane" holes or fresh frass].
- **Manual Control:** Immediately hand-pick and destroy egg masses or larvae found in the whorls.
- **Biopesticide Trigger:** Apply **Neem Oil** or **Bt-based microbial agents** if you find pests on more than 2 out of every 10 plants.
- **Avoid Early Chemicals:** Do not use synthetic sprays unless you have confirmed with your Extension Officer that the "Action Point" is reached.

3. MANDATORY SAFETY REMINDERS

- **Notify Neighbors:** You must give **24-hour notice** before any spraying.
- **Check the Wind:** Do not spray if the wind is blowing toward houses or water.
- **Wear your Gear:** No spraying is allowed without **Project-issued Boots, Masks, and Gloves.**

4. COMMUNICATION CHANNELS

A. SMS Alert (Copy & Paste):

AGROW ALERT: [Pest Name] outbreak reported in [LGA Name]. ACTION: Scout your [Crop] field today. If more than 2 in 10 plants show damage, contact your Extension Officer: [Phone Number]. Safety Flags MUST be used if spraying!

B. Radio Announcement Script:

"Attention AGROW farmers in [LGA Name]! Our scouts have found a rise in [Pest Name]. Do not wait! Go to your farm, check your plants. Use the 'W-Walk' method. If you see damage, use hand-picking and Neem water first. If you must spray, use your PPE and tell your neighbors. Protect your crop, protect your village!"

5. CONTACT FOR EMERGENCY SUPPORT

If your crop damage is severe or "Red Label" chemicals are being sold in your market, contact:

- **State Safeguards Officer:** _____

- **LGA Extension Coordinator:** _____

How to Use this Alert

1. **Trigger:** Use this when **30% or more** of scouting reports in a zone show "Yellow" or "Red" status.
2. **Distribution:** Send the SMS via the Project Database, share the graphic on the State WhatsApp Group, and fax the script to the local community radio station.
3. **Feedback Loop:** Require Extension Workers to report back in 72 hours on how many farmers took action based on the alert.

Annex 26: AGROW Project Emergency Pest Outbreak Response Log

This **Outbreak Response Log** is a specialized tracking tool for State Project Coordinators (SPCs) and Safeguards Officers. It provides a clear audit trail of how the project responded to a specific "Red Alert" or pest surge, ensuring that emergency resources (like biopesticides or extra PPE) were distributed safely and transparently.

Incident Ref #: [e.g., KN/FAW/2026/004] | **Alert Level:** [ ] ORANGE [ ] RED

Target Pest: _____ | **Affected LGAs:** _____

Response Start Date: _____ | **Duration of Operation:** _____

1. Emergency Resource Distribution

Tracking the deployment of project-financed IPM tools and safety gear.

Date	Location/LGA	Item Distributed (Biopesticides, Pheromones, PPE)	Quantity	Recipient (Cluster Lead/Group)	Batch/NAFDAC #

2. Field-Level Technical Support

Monitoring the "Safety-First" response in the outbreak zone

Metric	Target	Actual Achieved	Remarks/Gaps
Emergency Briefings:	1 per Cluster		Were farmers reminded of thresholds?
PPE Compliance:	100%		Did all responders have functional gear?
Notification:	100%		Were Community Safety Flags deployed?
Buffer Verification:	Random Spot Check		Were 30m water buffers respected?

3. Chemical Intervention Audit (If Thresholds Exceeded)

Only to be filled if biological/mechanical controls failed to contain the outbreak.

- **Approved Chemical Used:** _____
- **WHO Toxicity Class:** [ ] Class III (Green) [ ] Class U (Blue)
- **Approval Authority:** [ ] State Coordinator [ ] Safeguards Officer
- **Justification for Use:** (e.g., "Scouting showed >40% infestation despite Neem application")

4. Impact & Waste Management

- **Estimated Hectares Saved:** _____ Hectares
- **Estimated Hectares Lost:** _____ Hectares
- **Waste Recovery:** Total empty containers recovered and punctured: _____
- **Waste Disposal:** Date of pickup by NESREA-certified contractor: _____

5. Incident Close-Out & Lessons Learned

Was the response successful? What should be done differently next time?

State Project Coordinator Signature: _____ | Date: _____

Safeguards Officer Signature: _____ | Date: _____

Strategic Use of This Log

- **World Bank Reporting:** This log serves as the primary evidence for the **Environmental & Social Monitoring Report (ESMR)** during emergency pest events.
- **Budget Accountability:** It prevents the leakage of project inputs by linking every distributed item to a specific, recorded outbreak and recipient.
- **Continuous Improvement:** Use the "Lessons Learned" section to update your **Seasonal IPM Calendar** for the following year.

Annex 27: AGROW Project Pesticide Poisoning Incident Report

This **Pesticide Poisoning Incident Report Form** is a mandatory safeguard document under **World Bank ESS4**. It must be completed within **24 hours** of any suspected exposure incident and submitted to the National Project Implementation Unit (NPIU) for formal tracking and remediation.

Incident Ref #: [State Code]/MED/[Year]/[Sequence] | **Report Status:** [ ] Initial [ ] Follow-up **Date of Incident:** _____ | **Time of Incident:** _____

Location (LGA/Community): _____

1. VICTIM INFORMATION

- **Name:** _____ | **Age:** _____ | **Sex:** [ ] M [ ] F
- **Role:** [ ] Farmer [ ] Hired Laborer [ ] Extension Worker [ ] Community Member (Bystander)
- **Activity at Time of Exposure:** (e.g., mixing, spraying, cleaning equipment, accidental ingestion)

---

2. CHEMICAL IDENTIFICATION

- **Product Name:** _____ | **Active Ingredient:** _____
- **NAFDAC Reg #:** _____ | **WHO Toxicity Class:** [ ] II [ ] III [ ] U
- **Label Color:** [ ] Yellow [ ] Blue [ ] Green | **Source:** [ ] Project Vendor [ ] Open Market

3. INCIDENT DESCRIPTION & SYMPTOMS

- **Route of Exposure:** [ ] Skin [ ] Eyes [ ] Inhalation [ ] Ingestion
- **PPE Status:** Was the victim wearing PPE? [ ] Full [ ] Partial [ ] None
- **Symptoms Observed:** (e.g., dizziness, vomiting, pinpoint pupils, skin rash, difficulty breathing)

---

4. EMERGENCY RESPONSE & MEDICAL TREATMENT

- **Immediate Action Taken:** (e.g., washed skin with soap, moved to fresh air, used Action Card)

- **Medical Facility Attended:** _____
- **Treatment Administered:** (e.g., Antidote/Atropine, IV fluids, Observation)

- **Current Status of Victim:** [ ] Recovered [ ] Under Treatment [ ] Critical [ ] Deceased

5. SAFEGUARDS INVESTIGATION (Root Cause Analysis)

- **Environmental Conditions:** (e.g., high wind, high temperature, spraying near water)

- **Root Cause:** [ ] Faulty Equipment [ ] Lack of PPE [ ] Poor Training [ ] No Neighbor Notice
- **Corrective Action Taken:** (e.g., sprayer confiscated, retraining scheduled, site suspended)

---

6. AUTHORIZATION & SUBMISSION

Reported By (Extension Officer): _____ | **Signature:** _____ **Verified By (State Safeguards Officer):** _____ | **Signature:** _____ **Date Submitted to NPIU:** _____

Administrative Instructions for SPCs:

1. **Strict Confidentiality:** Store this form securely to protect the victim's privacy.
2. **The "24-Hour Rule":** Any "Serious" incident (hospitalization or death) must be reported to the NPIU and World Bank within **24 hours** of occurrence.
3. **Remediation:** Use the "Corrective Action" section to prevent recurrence. If the chemical was from a Project Vendor and found to be mislabeled, initiate the **Vendor Sanction Protocol**.

Annex 28: Community Engagement Following Pesticide Incident Briefing Note

This **Post-Incident Briefing Note** is a strategic communication tool designed to de-escalate tension, provide factual information, and restore community trust after a pesticide exposure event. It focuses on transparency and the specific corrective measures the AGROW Project is taking to prevent a recurrence.

To: State Project Coordinator (SPC)

Location: [Insert Community Name]

Objective: To manage social risks, address rumors, and reinforce safety protocols.

1. Opening: Empathy and Fact-Setting

- **Acknowledge the Event:** "We are here because we are deeply concerned about the health incident involving [Victim's Name/Category] that occurred on [Date]."
- **The Health Update:** (If appropriate) "We are pleased to report that [Victim] is currently [receiving care/recovering]. Our primary focus is their well-being."
- **Transparency:** "The AGROW Project has already launched a formal investigation to understand exactly what happened. We are not here to hide facts, but to ensure safety for everyone."

2. Addressing the Root Cause (Simplified)

Avoid overly technical jargon; focus on the "Human/Process" element.

- **If it was a lack of PPE:** "Our investigation found that the safety gear provided by the project was not used during this specific application. This is a reminder that the gear is not just a uniform; it is a shield."
- **If it was a lack of notification:** "In this instance, the 24-hour neighbor notification was not followed. This prevented the family nearby from taking simple steps like covering their water."

3. Immediate Corrective Actions

Show the community that the Project is "fixing the leak" immediately.

- **Suspension:** "We have temporarily halted spraying activities in this cluster until we re-train all operators on safety thresholds."
- **Equipment Audit:** "We are currently inspecting every sprayer in this community to ensure there are no leaks or faulty nozzles."
- **Vendor Check:** "We are testing the chemical used to ensure it matches the safety standards promised by our suppliers."

4. Reaffirming the "Good Neighbor" Rules

Remind the community of their rights and the farmer's responsibilities.

- **The 30-Meter Rule:** "No AGROW farmer is allowed to spray within 30 meters of your homes or wells. If you see this happening, report it to the Extension Officer immediately."
- **The Yellow Flag:** "When you see the Yellow Flag, please help us by keeping children and livestock away for that day."

5. Closing: Open Channel for Grievances

- **Grievance Redress Mechanism (GRM):** "If you have concerns, medical bills related to this, or feel your water has been affected, do not let it fester. Use our community suggestion box or call [Insert Hotline Number]."

- **Commitment:** "The AGROW Project belongs to this community. We want more food and better yields, but never at the cost of a neighbor's health."

Strategic Advice for the SPC

- **Tone:** Be humble but authoritative. Avoid being defensive.
- **Venue:** Hold the meeting in a neutral space (e.g., a community hall or under a central tree), not inside a project office.
- **Inclusivity:** Ensure women and youth leaders are present, as they are often the ones managing household water and childcare.

Annex 30: AGROW Project Community Grievance & Complaint Log

This Community Grievance Log is a vital component of the AGROW Project's Grievance Redress Mechanism (GRM). By providing this to community leaders, you empower the local population to report concerns (such as chemical drift, water contamination, or lack of notification) through a formal, transparent channel.

Community Name: _____ | LGA: _____

Designated Community Leader/GRM Officer: _____

Contact Number: _____

How to Use This Log:

1. **Record:** Every complaint must be written down the day it is received.
2. **Categorize:** Is it a safety issue, a land issue, or a health issue?
3. **Escalate:** If the issue cannot be solved locally within 48 hours, contact the **State PIU Safeguards Officer**.

GRIEVANCE TRACKING TABLE

Date Received	Name of Complainant	Nature of Grievance (e.g., "Spray drifted onto my well", "No notice given")	Level of Urgency (Low/Med/High)	Action Taken / Proposed Solution	Status (Open/Closed)	

Grievance Category Codes:

- **[S] – Safety/Health:** Suspected poisoning, chemical odors, or PPE violations.
- **[E] – Environmental:** Water contamination, soil spills, or dead livestock/bees.
- **[N] – Notification:** Failure to use the **Yellow Flag** or give 24-hour verbal notice.
- **[O] – Other:** Conduct of project staff, land boundary disputes, or input quality.

Chapter 2 Resolution Process for Community Leaders:

- **Step 1 (The Talk):** Invite both the farmer and the complainant to a neutral meeting.
- **Step 2 (The Fix):** Identify a corrective action (e.g., the farmer agrees to only spray when the wind is low; the farmer covers the neighbor's well).
- **Step 3 (The Verification):** The Community Leader visits the site 3 days later to ensure the problem is solved.
- **Step 4 (The Sign-Off):** Both parties sign the log to show the grievance is "Closed."

Chapter 3 Escalation Trigger:

⚠ **ATTENTION:** If a grievance involves **bodily harm, hospitalization, or environmental damage to a water source**, it CANNOT be solved locally. You must call the **AGROW State Hotline** immediately: **[Insert State Hotline Number]**.

Implementation Note for SPCs:

State Coordinators should audit these logs during every monthly site visit. A "Clean Log" (zero complaints) isn't always a good sign—it might mean the community doesn't know how to complain. A "Busy Log" with many "Closed" entries shows a healthy, transparent project.

Annex 31: AGROW Project Grievance Acknowledgment Receipt

This **Grievance Acknowledgment Receipt** provides the complainant with a physical "proof of filing." It builds trust by ensuring the project is held accountable for a response timeline and prevents complaints from being forgotten or ignored by local leaders.

Grievance Ref #: [LGA]/[Community]/2026/[Sequence]

1. FILING DETAILS

- **Date Filed:** _____ | **Time:** _____
- **Name of Complainant:** _____
- **Received By (Officer Name):** _____
- **Designation:** [ ] Community Leader [ ] Extension Officer [ ] GRM Officer

2. SUMMARY OF COMPLAINT

- **Category:** [ ] Health/Safety [ ] Notification [ ] Environment [ ] Other
- **Brief Description:** _____

3. COMMITMENT TO ACTION

- **Expected Response Date:** _____ (Within 5 working days)
- **Next Step:** [ ] Site Inspection [ ] Mediation Meeting [ ] Escalation to State PIU

4. SIGNATURES

- **Receiver's Signature:** _____
- **Complainant's Signature:** _____ (To acknowledge receipt)

FOR THE COMPLAINANT: YOUR RIGHTS

1. **Confidentiality:** Your identity will not be shared with the public without your permission.
2. **Non-Retaliation:** You will not be penalized or excluded from the AGROW project for filing a grievance.
3. **Appeal:** If you are not satisfied with the proposed solution, you have the right to appeal to the **State Project Implementation Unit (SPIU)**.

Need to follow up? Call the AGROW State Grievance Hotline: **[Insert Hotline Number]** or visit the LGA Project Office.

Implementation Note for Community Leaders

- **Carbon Copy:** If possible, print these on NCR (no carbon required) paper so the leader keeps one copy and the complainant keeps the other.
- **The "5-Day Rule":** Always set the "Expected Response Date" for no more than 5 working days from the filing date. Even if the issue isn't fully solved, the complainant must receive an update by then.

Annex 32: AGROW Project Grievance Resolution & Closure Form

This **Grievance Resolution Form** acts as the final "closing" document for any complaint. It is a vital piece of evidence for World Bank audits, proving that the **Grievance Redress Mechanism (GRM)** is functional and that the project is successfully resolving conflicts with community members.

Original Grievance Ref #: _____

Date of Resolution: _____

Location (LGA/Community): _____

1. SUMMARY OF SETTLEMENT

Describe the agreed-upon solution or corrective action taken to resolve the complaint.

Example: *Farmer agreed to spray only after 5:00 PM and confirmed a new 30m buffer zone from the neighbor's well. Neighbor is satisfied with the new boundary markers.*

---

2. CATEGORY OF RESOLUTION

- [ ] **Resolved through Mediation:** Parties reached a mutual agreement locally.
- [ ] **Technical Correction:** Equipment was fixed or buffer zones were physically marked.
- [ ] **Compensation/Restitution:** Damages (if any) were addressed as per Project guidelines.
- [ ] **Dismissed:** Complaint found to be unrelated to Project activities (provide justification below).

3. VERIFICATION OF CLOSURE

Before signing, the GRM Officer must verify that the agreed action has actually been performed.

- **Was a site visit conducted to verify the fix?** [ ] Yes [ ] No
- **Is the Complainant satisfied with the outcome?** [ ] Yes [ ] No

4. FINAL SIGN-OFF

A. THE COMPLAINANT *"I, _____, hereby acknowledge that the grievance I filed on [Date] has been addressed to my satisfaction. I consider this specific matter closed."* **Signature:** _____ | **Date:** _____

B. THE RESPONDENT (If applicable, e.g., the Farmer/Contractor) *"I agree to maintain the conditions of this resolution as stated above."* **Signature:** _____ | **Date:** _____

C. THE PROJECT REPRESENTATIVE (GRM Officer/Community Leader) Signature: _____ | **Date:** _____ | **Official Stamp:**

5. FOR OFFICIAL PIU USE ONLY

- **Date entered into State GRM Database:** _____
- **Was this case escalated to the National PIU?** [ ] Yes [ ] No
- **Lessons Learned:** (e.g., *Need to improve buffer zone training in this LGA*)

Strategic Advice for State Coordinators

- **Audit Trail:** Keep the original **Acknowledgment Receipt**, the **Grievance Log** entry, and this **Resolution Form** stapled together as a single "Case File."

- **Quarterly Reporting:** Use these forms to calculate your "Grievance Resolution Rate" (e.g., "90% of all grievances in Q1 were closed within 7 days").

Annex 33: AGROW Project Quarterly Grievance Summary Report

This **Quarterly Grievance Summary Report** is designed to provide World Bank Task Teams with a high-level, data-driven overview of the project's social health. It transforms individual "Grievance Resolution Forms" into a strategic performance indicator.

Reporting Period: [ ] Q1 [ ] Q2 [ ] Q3 [ ] Q4 | **Year:** 2026

State: _____ | **Total LGAs Active:** _____

Report Compiled By: _____ (State Safeguards Officer)

1. GRIEVANCE PERFORMANCE DASHBOARD

A snapshot of the "Resolution Rate" for the quarter.

Metric	Current Quarter	Previous Quarter	Trend (↑/↓)
Total Grievances Received			
Total Cases Resolved & Closed			
Total Cases Currently Open/Pending			
Average Resolution Time (Days)			
Grievance Resolution Rate (%)			

2. BREAKDOWN BY CATEGORY (The "Pest & Safety" Filter)

Identifying which IPMP safeguards are causing the most friction in the field.

Category	# of Cases	% of Total	Primary Root Cause Found
[S] Health & Safety (Poisoning/PPE)			
[E] Environmental (Water/Spills)			
[N] Notification (Flags/24hr Notice)			
[O] Other (Conduct/Land/Inputs)			

3. ESCALATION & SENSITIVE CASES

A summary of incidents that required NPIU or World Bank intervention.

- **Total Cases Escalated to State PIU:** _____
- **Total Cases Escalated to National PIU:** _____
- **Total "Serious" Incidents (as per ESS4):** _____
- **Summary of Serious Incidents:** (Briefly describe any cases involving hospitalization or major environmental damage and the current status).

---

4. GEOGRAPHIC HOTSPOTS

Which LGAs or Clusters are reporting the most grievances?

- **Top 3 LGAs for Grievances:** 1. _____ | 2. _____ | 3. _____
- **Proposed Intervention for Hotspots:** (e.g., *"Targeted retraining for Extension Workers in [LGA] due to high notification failures."*)

---

5. LESSONS LEARNED & SYSTEM IMPROVEMENTS

Evidence of how the Project is adapting based on community feedback.

1. _____

2. _____

6. AUTHORIZATION

Prepared By: _____ | **Signature:** _____ | **Date:** _____

Approved By (SPC): _____ | **Signature:** _____ | **Date:** _____

Submission Checklist for World Bank Missions:

- [ ] Attached full Case Files for any "High Urgency" or "Serious" incidents.
- [ ] Attached photos of Community Grievance Logs showing "Closed" signatures.
- [ ] Included a map showing the location of resolved water-buffer disputes.

Annex 34: AGROW Safeguards Monthly

This **Quarterly Safeguards Newsletter** is a critical "closing of the loop" tool. It demonstrates to farmers, traditional rulers, and the World Bank that the AGROW Project doesn't just collect data and grievances, but actually acts on them to improve community safety and environmental health.

Safety First. Better Yields. Healthy Communities.

Edition: [e.g., Q1 - 2026] | **State:** [Insert State] | **Focus:** Protecting Our Water & Our People

1. THE "VOICE OF THE COMMUNITY" (GRM Update)

In the last three months, we heard you! Here is how we resolved the issues you raised:

- **You Said:** "Some farmers are spraying too close to the community wells in [LGA Name]."
- **We Did:** We conducted a "Buffer Zone Boot Camp" for 50 farmers and physically marked the 30-meter "No-Spray" boundaries with white stones.
- **The Result:** Zero new reports of water-related grievances in that area this month!

2. IPM SUCCESS STORY: "The Power of the W-Walk"

Meet **[Farmer Name]** from **[Community]**. By using the "W-Walk" scouting method we taught last quarter, he discovered a Fall Armyworm surge early.

- **The Action:** Instead of expensive synthetic chemicals, he used local Neem-water extract and hand-picking.
- **The Win:** He saved **₦[Amount]** in input costs and protected the beehives at the edge of his farm.
- **His Advice:** *"Don't just spray because your neighbor is spraying. Scout first, save money later!"*

3. THE SAFETY SPOTLIGHT: The Yellow Flag

We have distributed **[Number]** new Yellow Safety Flags this quarter.

- **Remember:** If you see a Yellow Flag, it is a sign of a **Responsible Farmer**.
- **Action:** Keep children indoors, cover your food/water, and thank your neighbor for keeping you informed!

4. COMING UP NEXT QUARTER

- **Pre-Harvest Training:** We will be visiting clusters to discuss "Waiting Periods"—making sure your crops are chemical-free before they go to market.
- **Empty Container Drive:** Look out for the NESREA-certified truck visiting your LGA to collect your triple-rinsed bottles.

5. SAFETY REMINDER: THE TRIPLE-RINSE

Don't forget the **1-2-3 Rule**:

1. **Rinse** with water (1/4 full).
2. **Shake** and pour into the sprayer.
3. **Repeat** 3 times, then **Puncture** the bottle!

CONTACT US

Have a suggestion or a concern?

- **Hotline:** [Insert Number]
- **Help Desk:** Every Wednesday at the LGA Agricultural Office.
- **WhatsApp:** Join our State Farmer Group at [Insert Link/QR Code].

Instructions for Extension Workers:

- **Distribution:** Print this on a single double-sided sheet. Hand it out at Farmer Field Schools (FFS) and post it on the community notice board near the Palace or Market.
- **Local Language:** If your cluster has low literacy in English, use the "Pictures" and "Icons" section to explain the main points during your weekly meeting.

Annex 35: AGROW Project Chemical Rotation & Resistance Guide

To prevent pests and weeds from becoming "immune" to treatments, farmers must not use the same type of chemical repeatedly. This **Chemical Rotation Guide** uses the international **IRAC** (Insecticide) and **HRAC** (Herbicide) numbering systems to make rotation easy, even if the brand names of the products change.

The "Golden Rule" of Rotation

Do not look at the Brand Name; look at the Group Number.

If you used a **Group 1** chemical for the first spray, your next spray *must* be from a different group (e.g., **Group 3** or **Group 28**).

1. RICE: Insecticide & Herbicide Rotation

Insecticides (Targeting Stem Borers & Gall Midge)

Spray Timing	IRAC Group	Example Active Ingredients	Why Rotate?
First Spray	**Group 1B**	Organophosphates (e.g., Chlorpyrifos)	To knock down early infestations.
Second Spray	**Group 3A**	Pyrethroids (e.g., Lambda-cyhalothrin)	Different mode of action to kill survivors.
Third Spray	**Group 28**	Diamides (e.g., Chlorantraniliprole)	Long-lasting protection with low toxicity.

Herbicides (Targeting Grasses & Broadleaves)

Application	HRAC Group	Example Active Ingredients
Pre-Emergence	**Group 15**	Pretilachlor
Post-Emergence	**Group 2**	Bispyribac-sodium
Late Post	**Group 4**	2,4-D (Use with extreme caution near water)

2. MAIZE: The Fall Armyworm (FAW) Rotation

The Fall Armyworm is famous for developing resistance quickly. You **must** rotate every 14 days if an outbreak is active.

Treatment Cycle	IRAC Group	Common Product Type	Safety Note
Week 1-2	**Group 5**	Spinosyns (e.g., Spinetoram)	Highly effective on young larvae.
Week 3-4	**Group 11**	Microbial/Biopesticide (e.g., *Bt*)	Safe for natural enemies/bees.
Week 5-6	**Group 28**	Diamides	Use for heavy pressure in later stages.

3. HOW TO READ THE LABEL

Before buying, ask the vendor to show you the **Group Number** on the bottle. It is usually found in a small box at the top or bottom of the label.

- **Same Group = Same "Weapon":** If you use Group 1A and then Group 1B, the pest sees them as the same weapon. Resistance will build!
- **Different Group = Different "Weapon":** Switching from Group 3 to Group 5 confuses the pest and keeps your chemicals working for years.

Farmer's Checklist for Resistance Management

- [ ] Did I check my **Pesticide Usage Log** to see what I sprayed last time?
- [ ] Is this new chemical from a **different** Group Number?
- [ ] Am I using the **full label rate**? (Under-dosing creates "Super-Bugs").
- [ ] Have I tried **Neem Oil** or **Hand-picking** first to reduce chemical use?

Annex 36: AGROW Certified Agro-Dealer Workshop Training Agenda

This **Vendor Training Agenda** is designed to transform local agro-dealers from simple "sellers" into "Safeguard Partners." In many Nigerian communities, the vendor is the first person a farmer asks for advice; therefore, their understanding of chemical rotation and World Bank standards is vital to the project's success.

Theme: *Responsible Retailing: Protecting Yields and People* **Duration:** 1 Full Day (6 Hours) **Participants:** Licensed Agro-input dealers, Warehouse Managers, and NAFDAC Zonal Officers.

Session 1: The AGROW Standard (09:00 – 10:30)

- **The Prohibited List:** Identifying banned substances (WHO Class Ia/Ib and POPs). Why these are dangerous for the Nigerian soil and the vendor's liability.
- **The NAFDAC Seal:** How to spot counterfeit products and verify registration numbers using the NAFDAC mobile authentication system.
- **The Vendor Self-Declaration:** Reviewing the legal commitment vendors sign to participate in the AGROW project.

Session 2: Mastering the Numbers (IRAC & HRAC) (11:00 – 12:30)

- **The Science of Resistance:** Why "The strongest chemical" stops working if sold repeatedly to the same farmer.
- **Reading the Code:** Training on how to locate the Group Number box on international and local labels.
- **The "Basket Approach" to Sales:** Training vendors to look at a farmer's history and recommend a product from a *different* group than their last purchase.

LUNCH BREAK & NETWORKING (12:30 – 13:30)

Session 3: Stewardship & Safety (13:30 – 15:00)

- **PPE Bundling:** Establishing the rule that chemicals should not be sold without a reminder about PPE. "No Boots, No Mask, No Spray."
- **Safe Warehousing:** Practical demonstration of NESREA-compliant storage (ventilation, pallets, and segregation of herbicides from insecticides).
- **Spill Management:** A "Hands-on" drill using sawdust and shovels to contain a mock chemical leak in the shop.

Session 4: The Vendor's Role in the GRM (15:15 – 16:30)

- **Reporting Symptoms:** What to do if a farmer comes back complaining of illness (Immediate referral to the AGROW Emergency Card).
- **Container Take-Back:** Setting up shop-level collection points for triple-rinsed bottles.
- **Certification Ceremony:** Issuing "AGROW Trained Vendor" stickers for their shop windows.

Takeaway Materials for Vendors:

- **The "Rotation Wall Chart":** A large, laminated poster for their shop showing which chemical groups to alternate for Rice and Maize.
- **Customer Advice Cards:** Small slips they can staple to a receipt that list the **Pre-Harvest Interval (PHI)** for the product sold.
- **Emergency Contact List:** Direct lines to the State Safeguards Officer and NAFDAC Zonal leads.

Learning Outcome Assessment

At the end of the day, vendors must pass a 5-question "Sales Simulation":

"A farmer comes to you saying he used a Group 3A chemical two weeks ago but the worms are back. Which of these three products on your shelf should you sell him next?"

Annex 37: AGROW Certified Vendor" Window Sticker

To finalize the vendor's integration into the project's safety network, these two assets serve as both a public "seal of quality" and a functional technical reference for daily operations.

1. "AGROW CERTIFIED VENDOR" WINDOW STICKER

This sticker identifies the shop as a safe, project-approved source of inputs. It should be printed on high-visibility, weather-resistant vinyl.

Visual Layout:

- **Top Header:** [Large AGROW Project Logo]
- **Central Badge:** A large green seal with the text: **CERTIFIED SAFE AGRO-DEALER (2026)**
- **Key Commitments (Small Icons):**
    - [Icon of a Checkmark] **NAFDAC Registered Only**
    - [Icon of a Shield] **Anti-Resistance Expert**
    - [Icon of a Safety Mask] **PPE Stockist**
- **Footer:** *"This vendor is trained in World Bank Environmental & Social Standards."*
- **Verification:** A unique QR Code that farmers can scan to verify the vendor's license on the State PIU website.

2. "ROTATION WALL CHART" CONTENT

This chart is designed to be hung behind the counter. It helps the vendor quickly tell a farmer which product to buy based on what they used previously.

Title: AGROW RESISTANCE MANAGEMENT CHART

Subtitle: Change your Group Number, Save your Farm!

Section A: Maize Fall Armyworm (FAW) Rotation

If the Farmer used this last...	SELL them this now!
Group 5 (Spinosyns)	**Group 28** (Diamides)
Group 28 (Diamides)	**Group 11** (Bt/Microbial)
Group 11 (Biopesticides)	**Group 5** (Spinosyns)
Group 1A/1B (Organophosphates)	**STOP:** Move to Group 28 or 5 for better safety.

Section B: Rice Weed Management (Herbicides)

To prevent "Super-Grasses" that won't die:

| Application Stage | Choose ONE from this Group |

| :--- | :--- |

| **Pre-Emergent** | **Group 15** (e.g., Pretilachlor) |

| **Post-Emergent (Early)** | **Group 2** (e.g., Bispyribac-sodium) |

| **Post-Emergent (Late)** | **Group 4** (e.g., 2,4-D) |

Section C: Vendor’s Final Check (The "3-S Rule")

1. **S**ee the NAFDAC Number (No Number = No Sale).
2. **S**elect a different Group Number (Avoid Resistance).
3. **S**ell the PPE (Gloves and Masks are mandatory).

Implementation Strategy for SPCs

- **The Sticker as an Incentive:** Only vendors who complete the full training and pass the warehouse audit receive the sticker. Farmers should be told via the **Radio Jingle** to look for this sticker to ensure they are buying genuine, safe products.
- **Market Monitoring:** Extension Officers should do "Secret Shopper" visits to these stores to ensure the vendors are actually using the Wall Chart to advise farmers.

Annex 38: AGROW Project Quarterly Vendor Audit Checklist

This **Vendor Performance Audit Checklist** is the primary tool for maintaining the integrity of the AGROW Project's supply chain. It ensures that the "Certified" sticker on the window is backed by actual safety and quality standards on the shelves. If a vendor fails more than two "Critical" items, their certification is suspended, and they are removed from the project-approved list until a follow-up inspection is passed.

Vendor Name: _____ | **Registration #:** _____

LGA / Community: _____ | **Date of Audit:** _____

Auditor Name: _____ | **Inspection Type:** [ ] Routine [ ] Follow-up

1. PRODUCT COMPLIANCE (The "Red Lines")

These items are CRITICAL. A "No" in this section may result in immediate suspension.

Item	Status	Observations / Batch Numbers
Banned Substances: Are there any WHO Class Ia/Ib or POPs on the shelf?	[Y] / [N]	
NAFDAC Verification: Do all agrochemicals have valid NAFDAC Reg. Numbers?	[Y] / [N]	
Anti-Counterfeit: Did the vendor demonstrate the use of authentication codes?	[Y] / [N]	
Expiry Dates: Are all products within their valid shelf-life?	[Y] / [N]	

2. TECHNICAL ADVISORY & ROTATION

Testing the vendor's ability to act as a Safeguard Partner.

Item	Status	Observations
Rotation Chart: Is the AGROW Rotation Wall Chart displayed behind the counter?	[Y] / [N]	
Knowledge Check: Can the vendor explain the IRAC/HRAC codes to a customer?	[Y] / [N]	
Label Advice: Does the vendor explain Pre-Harvest Intervals (PHI) to buyers?	[Y] / [N]	
Safety Flag: Does the vendor stock/provide the Project Safety Flags?	[Y] / [N]	

3. WAREHOUSING & STORAGE SAFETY

Physical inspection of the storage conditions.

Item	Status	Observations
Ventilation: Is the storage area well-ventilated and kept at a cool temperature?	[Y] / [N]	
Segregation: Are herbicides stored separately from insecticides and seeds?	[Y] / [N]	
Floor/Pallets: Are chemicals stored on pallets (not directly on the floor)?	[Y] / [N]	
Spill Kit: Is there a functional spill kit (sand/sawdust, shovel, bags) nearby?	[Y] / [N]	

4. PPE & STEWARDSHIP

Item	Status	Observations
PPE Stock: Does the vendor have masks, gloves, and boots in stock for sale?	[Y] / [N]	
Container Policy: Does the vendor instruct farmers on the Triple-Rinse method?	[Y] / [N]	
Collection Point: Is there a designated bin for returning empty containers?	[Y] / [N]	

5. AUDIT VERDICT & ACTION PLAN

- **[ ] PASS:** Vendor maintains "Certified" status. (Next audit in 90 days).
- **[ ] PROBATION:** Minor issues found. Corrective actions required within 14 days.
- **[ ] FAIL/SUSPENDED:** Critical violations. Window sticker removed.

Auditor Recommendations:

Vendor Signature: _____ | Auditor Signature: _____

The "Secret Shopper" Strategy

As part of this audit, the Safeguards Officer should occasionally observe a transaction from a distance. If the vendor sells a chemical without mentioning the **Safety Flag** or **PPE**, it should be recorded as a technical failure in Section 2.

Annex 39: AGROW Project Warehouse Inventory & Safety Log

This **Warehouse Inventory & Safety Log** is designed to be the primary daily record for every AGROW regional and LGA storage facility. It combines stock management with a safety audit to ensure that "Safety" is not a separate task, but a part of the daily routine.

Facility Name/Location: _____ | Month/Year: _____

Warehouse Manager: _____ | State PIU: _____

SECTION 1: DAILY SAFETY & SECURITY CHECKLIST

To be completed every morning upon opening the facility.

Date	Time	Locks Secure? (Y/N)	Ventilation Working? (Y/N)	Any Leaks/Spills Found? (Y/N)	Fire Extinguisher Charged? (Y/N)	Manager Initials
01						
02						
03						
04						
05						

SECTION 2: INVENTORY MOVEMENT (IN/OUT)

Every chemical entering or leaving the store must be recorded here immediately.

Date	Product Name	NAFDAC Reg #	Batch Number	Qty IN (+)	Qty OUT (-)	Current Balance	Recipient / Purpose

SECTION 3: WEEKLY COMPLIANCE AUDIT

To be performed every Friday afternoon.

- **[ ] Segregation Check:** Are Herbicides still stored separately from Insecticides?
- **[ ] Pallet Integrity:** Are all containers off the floor and stacked safely?
- **[ ] Spill Kit Check:** Is the sand/sawdust dry? Are the shovel and bags present?
- **[ ] Obsolete Stock:** Are any products within 30 days of expiry? (If yes, move to Red Zone).
- **[ ] Signage:** Are "No Smoking" and "Poison" signs clearly visible and clean?

SECTION 4: MONTHLY WASTE LOG

Tracking the "Cradle-to-Grave" disposal of containers.

- **Total Punctured Containers Received from LGAs: _____**
- **Total Weight/Volume of Obsolete Stock Quarantined: _____**
- **Date of Pickup by Licensed Waste Vendor: _____**
- **Waste Vendor Certificate Number: _____**

Manager's Monthly Declaration

"I certify that this facility has been managed according to the AGROW Environmental and Social Management Framework (ESMF). All spills were contained, and all inventory is accounted for."

Signature: _____ | Date: _____

Verified by State Safeguards Officer: _____ | Date: _____

Warehouse Management Tips:

- **The "First-In, First-Out" (FIFO) Rule:** Always place the newest stock at the back of the shelf so that the older stock (closer to expiry) is used first.
- **SDS Accessibility:** Keep the Safety Data Sheets (SDS) in a bright yellow binder right next to the door. In case of a fire or spill, you must be able to grab them instantly.

Annex 40: AGROW Project Chemical Transport Manifest & Safety Log

This **Driver's Transport Manifest** is the mandatory "travel document" for any vehicle carrying AGROW project chemicals. It ensures that the driver, the highway authorities, and emergency responders know exactly what is on board and how to act if an accident occurs on the road.

Manifest ID: [State]/TRP/[Year]/[Sequence]

Vehicle Reg #: _____ | **Driver Name:** _____

Origin (Warehouse): _____ | **Destination (LGA/Hub):** _____

1. CARGO INVENTORY (The "Load List")

Driver must verify these items before departing.

Product Name	NAFDAC Reg #	WHO Class (II/III/U)	Container Type	Total Quantity

2. PRE-DEPARTURE SAFETY CHECKLIST

The Warehouse Manager and Driver must both sign off.

- [ ] **Load Security:** Are all drums/boxes strapped down and unable to slide?
- [ ] **Prohibition:** Are there any food items, animals, or passengers in the cargo area? **(NO)**
- [ ] **Weather Protection:** Is the load covered with a waterproof tarpaulin?
- [ ] **Documents:** Does the driver have the **SDS (Safety Data Sheets)** for all products?
- [ ] **Emergency Kit:** Is there a fire extinguisher and a spill kit (sand/bags) in the cab?

3. EMERGENCY ACTION PLAN (For the Driver)

In case of a leak or accident on the road:

1. **STOP:** Pull over safely, away from water bodies or crowded markets.
2. **SECURE:** Keep bystanders away. Do not smoke near the vehicle.
3. **CONTAIN:** Use the sand from your spill kit to soak up any liquid. Do not wash it into a gutter.
4. **REPORT:** Call your supervisor and the nearest emergency service immediately.

4. EMERGENCY CONTACT NUMBERS

- **State Project Warehouse Manager:** _____
- **State Safeguards Officer:** _____
- **National Emergency (Nigeria): 112**
- **Nearest Hospital at Destination:** _____

5. SIGN-OFF & RECEIPT

Departure (Warehouse Manager): *"I certify this load is secured and contains only AGROW-approved chemicals."*
Signature: _____ | **Time:** _____ | **Date:** _____

Arrival (Receiving Officer at Hub): *"I have inspected the load. All seals are intact and quantities match the manifest."*
Signature: _____ | **Time:** _____ | **Date:** _____

Instructions for the Driver:

- **Never Leave Unattended:** Do not leave the vehicle unlocked or unattended in public spaces.
- **The "No Passenger" Rule:** Do not pick up hitchhikers or carry any person not authorized by the project while chemicals are on board.
- **Post-Trip:** Once the delivery is complete, return a signed copy of this manifest to the State PIU for filing.

Annex 41: AGROW Project Vehicle Spill Response Drill (Dry Run)

This **Vehicle Spill Response Drill** is a practical, 10-minute training exercise for project drivers and logistics staff. It ensures that in the high-stress moments following a transit accident or leak, the response is automatic, safe, and prevents environmental contamination.

Objective: To train drivers to contain a liquid chemical spill on a roadway within 5 minutes of discovery.

Equipment Needed: A project vehicle, 5 liters of water (to simulate a spill), the Vehicle Spill Kit (sand/sawdust, shovel, heavy-duty bags, gloves, and safety goggles).

Step 1: The "Immediate Stop & Secure" (1 Minute)

- **Action:** The driver pulls the vehicle over to a flat area, kills the engine, and sets the handbrake.
- **Safety Zone:** The driver places hazard triangles 20 meters behind and in front of the vehicle.
- **Bystander Control:** Shout clearly: *"Stay back! Chemical spill! Do not smoke!"* (In English and local language).

Step 2: Personal Protection (1 Minute)

- **Action:** Before touching anything near the leak, the driver must put on the **Nitrile Gloves** and **Safety Goggles** from the spill kit in the cab.
- **Check:** Ensure the driver does not have open wounds on their hands.

Step 3: Containment (The "Sand Ring") (3 Minutes)

- **Action:** Identify the direction the liquid is flowing (toward a gutter, stream, or farm).
- **The Barrier:** Use the shovel to pour a thick ring of sand or sawdust *around* the spill, not directly on it yet. This "dams" the liquid.
- **The Soak:** Once the flow is stopped, pour the remaining absorbent material directly onto the liquid until it is fully soaked up.

Step 4: Recovery & Bagging (3 Minutes)

- **Action:** Use the shovel to scoop the contaminated sand/sawdust into the heavy-duty yellow hazardous waste bags.
- **The Wipe:** Use a rag to wipe down any residue on the vehicle body. Place the rag in the bag.
- **Sealing:** Tie the bag tightly with a zip-tie or heavy twine.

Step 5: Reporting (2 Minutes)

- **Action:** The driver must call the State Warehouse Manager.
- **The Report:** *"I have a spill of [Product Name] at [Location]. It is contained in bags. No water bodies were hit. Awaiting instructions for transport."*

Drill Evaluation Checklist (For the Trainer)

Evaluation Metric	Pass	Fail	Notes
Speed: Was the sand ring deployed in < 3 mins?	[ ]	[ ]	
PPE: Did the driver put on goggles before the sand?	[ ]	[ ]	
Water Check: Did the driver check for nearby gutters?	[ ]	[ ]	
Communication: Was the supervisor called immediately?	[ ]	[ ]	

Important Safety Note for Drivers

⚠ **WARNING:** If the spill is bubbling, smoking, or has a strong "rotten egg" smell, **DO NOT ATTEMPT TO CONTAIN IT.** Move 50 meters upwind and wait for emergency services. Your life is more valuable than the cargo.

Annex 42: AGROW Project Vehicle Spill Kit Inventory Checklist

This **Spill Kit Inventory Checklist** is a mandatory part of the pre-dispatch routine. A spill kit is useless if the sand is wet, the bags are torn, or the gloves are missing. The Warehouse Manager must verify these items before any driver is cleared to transport chemicals.

Vehicle Reg #: _____ | **State/LGA:** _____

Inspected By: _____ | **Date:** _____

SECTION 1: PROTECTIVE GEAR (PPE)

The driver must be able to protect themselves before handling the spill.

Item	Required Qty	Status (OK / Missing)	Condition (New/Worn)
Chemical-Resistant Gloves (Nitrile)	2 Pairs	[ ]	No holes or cracks.
Safety Goggles (Anti-fog/Splash)	1 Pair	[ ]	Clear lens, no deep scratches.
Disposable Overalls / Apron	1 Unit	[ ]	Sealed in bag.
Dust Mask (N95/FFP2)	2 Units	[ ]	Dry and clean.

SECTION 2: ABSORBENT & TOOLS

The materials used to stop the "flow" and clean the road.

Item	Required Qty	Status (OK / Missing)	Condition (New/Worn)
Absorbent Material (Dry Sand/Sawdust)	10–20 kg	[ ]	**MUST BE DRY** and in a sealed bucket.
Hand Shovel / Scoop (Non-sparking)	1 Unit	[ ]	Sturdy and clean.
Heavy-Duty Waste Bags (Yellow/Red)	5 Bags	[ ]	High-density plastic (no leaks).
Industrial Zip-Ties / Twine	10 Units	[ ]	For sealing contaminated bags.
Hand Brush & Dustpan	1 Set	[ ]	For final cleanup of granules.

SECTION 3: DOCUMENTATION & LABELS

Item	Required Qty	Status (OK / Missing)	Notes
Spill Response Action Card	1 Card	[ ]	Laminated and in the cab.
"Hazardous Waste" Stickers	5 Labels	[ ]	To label bags after cleanup.
SDS Folder (Safety Data Sheets)	1 Set	[ ]	Matches current cargo on board.

SECTION 4: VERIFICATION

- **Last Replacement Date:** _____ (When was the sand/PPE last refreshed?)
- **Seal Status:** [ ] The Spill Kit container is sealed and moisture-proof.

Inspector's Comment: _____

Warehouse Manager Signature: _____ | **Driver Signature:** _____

Maintenance Tips for Drivers:

- **Keep it Dry:** If water gets into your sand bucket, it will clump and fail to absorb chemicals. Ensure the lid is tight.
- **Check the Gloves:** Rubber and Nitrile can degrade in the heat of a truck cab. Stretch them once a month to check for brittleness.
- **One-Time Use:** If you use any item from this kit, you must report it to the Warehouse Manager immediately to have the kit replenished before your next trip.

Annex 43: AGROW Project E&S Screening Checklist (Pesticide Section)

This section of the **Environmental and Social (E&S) Screening Checklist** is the primary tool for the SPIU to determine the risk level of a sub-project. Every cooperative or offtaker seeking funding must be vetted against these questions before any "Input Disbursement" is approved.

Sub-Project Name: _____ | **LGA/State:** _____

Screening Officer: _____ | **Date of Visit:** _____

Part A: The "Exclusion List" (The Hard No)

*If the answer to any question in Part A is **YES**, the sub-project is **INELIGIBLE** for funding unless it is redesigned.*

#	Question	Yes	No
1	Does the proposal include the use of WHO Class Ia or Ib (Red Label) products?	[ ]	[ ]
2	Does the proposal include the use of Persistent Organic Pollutants (POPs)?	[ ]	[ ]
3	Will pesticides be applied via aircraft (Aerial Spraying)?	[ ]	[ ]
4	Will spraying occur within a Protected Primary Forest or sensitive RAMSAR Wetland?	[ ]	[ ]

Part B: Site-Specific Risk Assessment

These questions determine if a Site-Specific IPMP Addendum is required (Moderate Risk).

#	Question	Yes	No	Context / Action Required
5	Are there community drinking water wells within 50 meters of the farm?	[ ]	[ ]	*Requires 50m buffer marking.*
6	Is there a river, stream, or pond directly bordering the farm site?	[ ]	[ ]	*Requires Water Quality Monitoring Plan.*
7	Does the cooperative currently lack a lockable, ventilated chemical store?	[ ]	[ ]	*Requires CAP for storage construction.*
8	Are there beehives or commercial honey production within 1km of the site?	[ ]	[ ]	*Requires Bee Protection Protocol.*
9	Does the sub-project involve the employment of seasonal/hired labor?	[ ]	[ ]	*Requires OHS & SEA-SH training.*

Part C: Capacity & Readiness

#	Question	Yes	No
10	Has the Cooperative Lead been trained on the AGROW 12-Module IPMP?	[ ]	[ ]
11	Does the group have a record-keeping system for "Scouting Logs"?	[ ]	[ ]
12	Is there a functional First Aid kit available on-site?	[ ]	[ ]

D. SCREENING DECISION & RISK CLASSIFICATION

- **[ ] LOW RISK:** (No pesticide use). Proceed with Generic ESMP.
- **[ ] MODERATE RISK:** (Standard pesticide use). **Action:** Attach **Standard IPMP Addendum** and specify buffer zones on the site map.
- **[ ] SUBSTANTIAL RISK:** (Large-scale use/Sensitive site). **Action:** Develop **Full Site-Specific IPMP** with Water Quality Monitoring.
- **[ ] HIGH RISK / INELIGIBLE:** (Banned chemicals or methods). **Action:** Reject application or redesign for non-chemical IPM.

Screening Officer's Certification

"I have visited the site and interviewed the Cooperative Leads. The answers provided above accurately reflect the field conditions at the time of screening."

Officer Signature: _____ | **Date:** _____

Cooperative Rep Signature: _____ | **Date:** _____

Instructions for the SPIU Safeguards Officer:

- **The Site Map:** Every screening report **must** have a hand-drawn or GPS-marked map attached, clearly showing where the "No-Spray" buffer zones are located relative to community houses and water.
- **DLI Verification:** This checklist is a "Disbursement Linked Indicator" (DLI). The Independent Verification Agent (IVA) will audit these forms to ensure they were completed *before* the money was sent.