TECHNICAL REPORT ON STUDENT INDUSTRIAL WORK EXPERIENCE SCHEME (SIWES)

UNDERTAKEN AT

REMTO FARM LIMITED

KM5, OGUNLORE,OFF LASOJU KWARA STATE

PRESENTED BY

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SUBMITTED TO:

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ACKNOWLEDGEMENT

I wish to register my profound gratitude to Allah Almighty for the guidance and grace throughout my life.

My appreciation goes to the entire staff of REMTO FARM LIMITED

for making industrial training interesting educative and worthwhile. My appreciation also goes to my industrial based supervisors, whose accessibility. Unitary effort, patient and guidance and suggestion fabulously contribution to the completion of this report, may God continue to guide and protect them and their family.

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SIWES COORDINATOR DATE

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SIWES SUPERVISOR DATE

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CHAPTER ONE

1.0 INTRODUCTION OF SIWES

SIWES simply refer to students industry work experience scheme, is a skill training programme deigned to expose and prepare students of universities, polytechnics, college of technology, colleges of agriculture and colleges of education for the industrial work experience they are likely to meet after graduation. The pogramme also affords student the opportunity of familiarizing and exposing themselves to the needed experience in handling equipment and machinery that are usually not available in their institutions.

Before the establishment of the scheme, there was a growing concern among industrialist that graduates of tertiary institution lacked adequate practical background preparatory for employment in industries. That is, the employers were of the opinion that the theoretical education going on in institutions for initiating and designing the scheme by the fund during it's formative years 19673 – 94 was introduced to acquaint student with skill of handling employers and machinery.

1.1 AIMS OF SIWES

- ✔ To expose students of higher place of learning to the practical aspects of what they are being taught in school and prepare them for future work related experiences.

1.2 OBJECTIVES OF SIWES

- ✔ To prepare for the industrial work experience they are to undergo after graduation
- ✔ To expose student to work method and techniques in handling equipment and machinery that may not available in their institution.
- ✔ To provide student opportunity to see the world of theirs.

CHAPTER TWO

2.0 BACKGROUND HISTORY OF THE ESTABLISHMENT

2.1 HISTORY OF REMTO FARM LIMITED

REMTO Farm Limited is a thriving agricultural enterprise located in Ogunlore, off Lasoju, Kwara State. The farm's establishment is rooted in the vision and determination of Mr. and Mrs., who shared a common goal of building a sustainable business that would generate income and support their family's well-being.

The Founding Vision

From the beginning, the couple nurtured a dream of owning a farm, inspired by their love for agriculture and a deep passion for nature's cycles of growth and harvest. Their dedication to this vision was further fueled by the enthusiasm of their firstborn, whose interest in farming played a significant role in driving the family's commitment to establishing the business. This shared passion created a foundation of unity and perseverance, essential elements that guided the farm's early development.

Establishment and Early Growth

With a clear vision and unwavering determination, REMTO Farm Limited was officially established in 2005. The farm started as a small-scale venture, gradually expanding as the family invested their time, energy, and resources into nurturing its growth. Despite the challenges that often accompany agricultural endeavors, the founders' resilience ensured that the farm steadily progressed, earning a reputation for quality production and sustainable practices.

Expansion into Fish Farming

Recognizing the potential for diversification and the growing demand for fish products, REMTO Farm Limited expanded its operations in 2013. A branch was established in Egbejila, Asa Dam, Ilorin, Kwara State, dedicated primarily to fish farming. This strategic expansion allowed the farm to explore new opportunities within the agricultural sector, contributing to local food security and strengthening the farm's position within the market.

Present Success and Continued Progress

Since its inception, REMTO Farm Limited has consistently evolved, adapting to changes in the agricultural landscape and embracing innovation. The farm's enduring success is a testament to the founders' vision, their children's involvement, and the family's collective dedication to growth and sustainability. Today, REMTO Farm Limited stands as a symbol of hard work, passion, and the rewards of persistence, continuing to flourish and inspire future generations.

2.2.OBJECTIVES OF THE MINISTRY

- ✔ To boost Nigeria agricultural sector as a form diversification of the economy.
- ✔ To provide employment
- ✔ To provide student opportunity to see the world of theirs.
- ✔ To provide raw material for processing companies.
- ✔ To provide basic practical knowledge for people in the field of agriculture.

2.3. ORGANIZATIONS STRUCTURE (ORGANOGRAM)

The REMTO Farm Limited. is headed by the director who gives order and instructions to the manager. The manager, manage the whole affairs of the farm and report therein back to the Director.

The manager makes sure that all activities is going on in the farm as expected.

CHAPTER THREE

3.1 TECHNICAL TRAINING EXPERIENCE

At my SIWES placement Forescraft Phase I and II there were two major division/unit as their area of specialization

Division / unit/ section

i. Fushery unit/ section
ii. Poultry unit / section

3.2 FISHERY UNIT

At fishery unit were exposed to various technical aspect of fish rearing and management as follows:

- Fish and fishes types
- Feed, types feeding of fishes
- Water and water management of fish
- Pond, pond types and ponds management
- Fish breeding
- Spawning
- Identification of male and female fishes
- Fish life – stages
- Aquarium and preparation of aquarium of hatchery
- Stimulating reproduction hormones ovulars /ovaporum

❖ **Fish**: is an aquatic animals that fed phytoplant zooplanton and artificial for cultured aquatic animals (fish).

Fishery: is the art and sciences of fish rearing and their management of modern day aquatic animals culturing (fish).

Aquaculture: the sciences of rearing fishes under a difference water bodies i.e. concrete pond, plastic panel vert. earthen pond etc.

At my SIWES farm we were introduced and exposed to majorly African cat fish or mudfish also called clarias garipons. Though we were informed that there were other fishes that can be cultured in Kwara Stat i.e. Tilapia.

Feed Types And Feeding Of Fish

We were introduced to different feeds and feed types based on the fish sizes, this led us to we the farm supervisor called fish life – stages.

Feed

i. Pelleted fish
ii. Powder fish feed

⇨ Pelleted or pellet fish feed was made out of the following feed ingredients.

- Maize
- Soya bean
- G.N.C Ground nut cake
- Starch
- Lysin
- e.t.c.

⇨ Powder fish feed was also made out of the above ingredient but they are majorly imported i.e. (Artemia).

Fish life – stages of their Feeds

Fish => fry	Fingerlins	Juvenine	Table size
↓	↓	↓	↓
Feed => Artemia	Pellet	Pellet	Pellet

Feeding of fishes

We were introduced to feeding of fish techniques and we practiced the feeding based on roster and time to feed.

When and how to feed fish

We feed fishes in the morning and examine the supervisor said we are to follow the trend since they are under artificial management.

Morning within the hours of 7:30 – 8:30am

Evening within the hour of 4:30 – 5:30pm

Application was by broadcasting at a targeted point.

Water water source and water management

Water is liquid oxygen and the supervisor informed us the fish is water and water is fish once there is no water nobody can plan or thinks of rearing fishes. With this to set-up fish farm there must be reliable and constraint water source and supply.

Reliable Water source of fish rearing

⇨ Stream / river water following => 100% oxygen level

⇨ Well water => 85 – 75% oxygen level

- ⇨ Borehole water = 50 – 45% oxygen level

- ⇨ Stagnate water is not advisable.

CHAPTER FOUR

4.1. CROP UNIT

At crop production unit were exposed to various technical aspect of focuses on boosting crop yield and improving farming techniques for staple and cash crops, as follows:

Crop, and Crop types

Soil and Land Management

Planting Techniques and Spacing

Irrigation and Water Management

Crop Rotation and Intercropping

Weed and Pest Control

Growth Stage of Crop

Harvesting and Post-Harvest Management

Storage and Preservation Techniques

Crop: is a plant grown and harvested for food, livestock feed, fiber, or other uses.

Agronomy: is the science and practice of growing crops and managing soil for better productivity and sustainability.

It involves understanding plant physiology, soil science, and environmental factors affecting crop growth.

At my SIWES farm, we were introduced and exposed to various crop types, including cereals, legumes, tubers, and vegetables. We learned how to cultivate these crops, from land preparation to harvesting and storage.

Soil Types and Land Preparation:

We studied different soil types and how to prepare land for planting through plowing, harrowing, and ridging to create suitable conditions for crop growth.

Plant Nutrient Management:

We explored how to balance soil nutrients using organic and inorganic fertilizers to promote healthy plant development and maximize yields.

Planting Techniques and Spacing:

We practiced various planting methods, such as direct seeding and transplanting, and learned the importance of proper spacing for optimal plant growth and resource utilization.

Growth Stages of Crops:

Understanding the stages of crop development helped us manage crops more effectively:

Germination → Seedling → Vegetative stage → Flowering → Maturity → Harvest

Common Crop Feeds (Fertilizer Components):

Just like fish feed has ingredients, crops need specific nutrients:

Nitrogen (N) — for leaf and stem growth

Phosphorus (P) — for root development and flowering

Potassium (K) — for disease resistance and overall plant health

Organic matter — for soil structure and long-term fertility

When and How to Plant Crops

We were introduced to planting techniques and practiced proper scheduling based on crop type, season, and environmental factors.

Morning planting (7:30 – 8:30 am): Ideal for crops that prefer cool temperatures to prevent transplant shock.

Evening planting (4:30 – 5:30 pm): Useful for seedlings that need time to acclimate before exposure to full sunlight.

Planting was done using broadcasting, drilling, or transplanting, depending on the crop requirements.

Soil and Water Management for Crops

Soil health and water availability are essential for successful crop production. The supervisor emphasized the importance of soil moisture, drainage, and nutrient levels.

Reliable Water Sources for Crop Production:

Rainwater: Ideal for most crops, providing natural irrigation and nutrient cycling.

Irrigation from wells (85–75% efficiency): Suitable for consistent watering, especially in dry seasons.

Borehole water (50–45% efficiency): Useful for drought-prone areas but may require treatment for mineral balance.

> Note: Stagnant water is not advisable, as it may promote fungal diseases and root rot.

Soil Types and Land Preparation

We learned that different crops thrive in specific soil types, and proper land preparation enhances growth potential.

Soil Types:

Loamy soil: Ideal for most crops due to its balanced texture and nutrient-holding capacity.

Clay soil: Suitable for water-loving crops but requires amendments for drainage.

Sandy soil: Good for root crops but needs organic matter to improve moisture retention.

Land Preparation Techniques:

Plowing: To break up compact soil and improve aeration.

Harrowing: To refine soil texture and remove weeds.

Ridging: For crops like yam, to promote root development and drainage.

i. Crop Classification and Identification

Farmers learn to select crops based on soil, climate, and market demand:

Cereals: Maize, rice, millet

Legumes: Cowpea, soybean

Tubers: Yam, cassava

Vegetables: Tomatoes, leafy greens

Cash Crops: Cocoa, oil palm

ii. Soil and Land Management

Healthy soil is vital for crop growth. Farmers are trained in:

Soil Testing: Checking pH and nutrients

Fertilization: Using organic/inorganic fertilizers

Land Preparation: Plowing, harrowing, and ridging

Soil Conservation: Techniques like terracing and cover cropping

iii. Planting Techniques and Spacing

Proper planting boosts yields and prevents overcrowding:

Seed Selection: Choosing disease-resistant seeds

Planting Depth & Spacing: Optimizing root development

Plant Population Management: Thinning and pruning for airflow

iv. Irrigation and Water Management

Efficient water use prevents stress and increases growth:

Irrigation Systems: Drip, sprinkler, and furrow irrigation

Water Conservation: Mulching and rainwater harvesting

Drainage Solutions: Preventing waterlogging and root diseases

v. Crop Rotation and Intercropping

Diverse cropping strategies improve soil health and reduce pests:

Crop Rotation: Alternating crops to balance nutrients

Intercropping: Planting complementary crops (e.g., maize + beans)

Companion Planting: Using plants like marigolds to repel pests

vi. Harvesting and Post-Harvest Management

Timely harvesting and careful handling prevent losses:

Timely Harvesting: Picking crops at peak maturity

Harvesting Techniques: Using tools to avoid damage

Post-Harvest Handling: Sorting, drying, and proper transport

vii. Storage and Preservation Techniques

Proper storage protects crop quality and reduces spoilage:

Storage Structures: Silos, cribs, and airtight containers

Preservation Methods: Drying, smoking, and chemical treatments

Pest Control: Managing rodents and molds with safe methods

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CHAPTER FIVE

RECOMMENDATION AND CONCLUSION

RECOMMENDATION

SIWES Programe is an interested practical and working experience which facilitate familiarity with working act, tools and machinery handling for student such graduate and under graduate with these view. It is highly recommend that federal governments should fund the programme for more better efficiency.

CONCLUSION

In conclusion SIWES programme it's what of continuity with strong monitoring by the (ITF) officers and various higher places of learning to make sure that their students are fully participate in the programme for better working experience for great better nation ahead.