1. INTRODUCTION

Students Industrial Work Experience Scheme (SIWES) is a Skills Training Program designed to prepare and expose Students of Universities, Polytechnics, Colleges of Technology, Colleges of Agriculture and Colleges of Education for the Industrial Work situation they are likely to meet after graduation. The Scheme affords Students the opportunity of familiarizing and exposing themselves handling equipment and machinery that are usually not available in their institutions.

Before the establishment of the Scheme, there was a growing concern that graduates of our Institutions of higher learning lacked adequate practical knowledge and that the theoretical education in Higher Institutions was not responsive to the needs of the Employers 'of Labour.

It is against this background that the Industrial Training Fund (ITF) initiated, designed and introduced SIWES Scheme in 1973 to acquaint Students with the skills of handling Industrial equipment and machinery.

The Industrial Training Fund (ITF) solely funded the Scheme during its formative years. However, due to finance constraints, the Fund withdrew from the Scheme in 1978. The Federal Government noting the significance of the skills training, handed the management of the Scheme to the National Universities Commission (NUC) and the National Board for Technical Education (NBTE) in 1979. In November 1984, management and implementation of the Scheme was again reverted to the ITF with the funding to be solely borne by the Federal Government

1.1 Objectives of SIWES

Specifically, the objectives of the Students Industrial Work Experience Scheme (SIWES) are to:

- > Provide avenue for Students in Institutions of Higher Learning to acquire industrial skills and experience in their course of study.
- Prepare Students for the industrial work situation they are to meet after graduation.
- Expose Students to work methods and techniques in handling equipment and machinery that may not be available in their Institutions.

- Make the transition from school to the world of work easier, and enhance Students contacts for later job placement.
- Provide Students with an opportunity to apply their knowledge in real work situation thereby bridging the gap between theory and practice.
- > Enlist and strengthen Employers involvement in the entire education process and prepare Students for employment after graduation.

1.2 BODIES INVOLVED IN THE MANAGEMENT OF SIWES PROGRAMME AND THEIR ROLES

- > The Federal Government of Nigeria;
- > The Industrial Training Fund (ITF);
- National Universities Commission (NUC);
- National Board for Technical Education (NBTE);
- > National Commission for Colleges of Education (NCCE);
- Institutions of Higher Learning; and
- > The Employers of Labour

The bodies have specific roles assigned to them in the administration and management of SIWES.

2. THE ROLES

2.1 FEDERAL GOVERNMENT OF NIGERIA

- a) Provide adequate funds to the Industrial Training Fund through the Federal Ministry of Industry, Trade and Investment for the Scheme.
- b) Make it mandatory for all Ministries, Companies and Parastatals to offer places for the attachment of Students in accordance with the provision of Decree No. 47 of 1979 as amended in 2011. The relevant provisions of the amended act are as follows:

Section 7A (1) (b) stipulated as follows:

Shall Accept Students for Industrial Attachment Purposes

The Decree under section 7A (2) stipulate penalties in default of section 7A (1)(b).

Section 7A (2)

Any employer who is in breach of the provision of the sub-section (1) of this section shall be guilty of an offence under this Act and liable to conviction.

- ➤ In the case of a corporate body, to a fine of Five Hundred Thousand Naira (№500,000.00) for the first breach and One Million Naira (№1000,000.000) for subsequent breaches; and
- ➤ In case of a Chief Executive, Secretary, or other Principal Officers of the company, to a fine of Fifty Thousand Naira (N50,000.00) or two years' imprisonment for the first breach and three years' imprisonment without option of a fine for each subsequent breach.

2.2 THE INDUSTRIAL TRAINING FUND

- Formulate policies and guidelines on SIWES for distribution to all SIWES participating bodies, institutions and companies involved in the Scheme.
- > Regularly involve in organizing orientation programmes for Students prior to their attachment;
- Receive and process Master and Placement Lists from the Institutions through their Supervisory Agencies (NUC, NBTE & NCCE);
- Supervise and Monitor Students on Industrial Attachment;
- > Disburse Supervisory and Students allowances by e-payment
- > Organize Biennial SIWES National Conference and SIWES Review Meetings;
- Provide insurance cover for Students on attachment.
- Provide logistics and materials necessary for effective administration of the Scheme.
- Ensure the visitation (tours) of ITF Officers to the Supervising Agencies, Institutions, Employers and Students on Attachment;
- Provide information on companies for attachment and assist in the industrial placement of students;
- > Continuously review and carry out research into the operation of the Scheme;
- > Vet, process and verify Students' logbooks and ITF Form 8.

2.3 THE SUPERVISORY AGENCIES

The three (3) Supervisory Agencies are:

National Universities Commission (NUC)

National Board for Technical Education (NBTE)

National Commission for Colleges of Education (NCCE)

- > Ensure the establishment and accreditation of SIWES Units in Institutions under their jurisdiction;
- Appointment of full-time SIWES Coordinators;
- > Adequate funding of the SIWES Units in all Institutions;
- Vet and approve Master and Placement Lists of Students from participating Institutions and forward same to ITF;
- Develop, Monitor and review job-specifications in collaboration with the Institutions towards the maintenance of National Minimum Academic Standard for all programmes approved for SIWES;
- ➤ Liaise with ITF and participate in the SIWES National Biennial Conference and other relevant SIWES Seminars, Conferences, Workshops and Meetings;
- Research into the development of SIWES in line with advances in technological development;
- Regularly review courses qualified for SIWES in collaboration with other bodies:
- > Liaise with ITF, to ensure the implementation of all Federal Government policies on the Scheme.

2.4 THE INSTITUTIONS

- I. Establish SIWES Co-ordination Units with a **separate account** adequately staffed and funded to ensure effective operation of the Scheme. The Units must meet the following **minimum personnel/mental requirements**:
 - > A full-time Head of SIWESUnit (Director/Coordinator), whose rank should not be less than that of a Senior Lecturer in the related discipline;
 - An Administrative Officer (to assist the Head of SIWES);
 - A Secretary / Typist/Data Entry Clerk
 - > An Office Assistant;
 - > Adequate Office space;

- > A personal computer and /or Laptop
- Functional Photocopying machine;
- Separate SIWES account;
- > A functional Vehicle
- ii. Capture students' matric No., phone no. and bank details at the point of registration for SIWES (Bank Name, Account Name, NUBAN Account Number and Sort Code).
- iii. Prepare and submit to the ITF:
 - a) Three (3) hard copies and a soft copy of Master Lists not later than 31st March of each SIWES year or three (3) months before the commencement of Industrial Attachment.
 - b) Three (3) hard copies and a soft copy of Placement Lists not later than 31st May of each SIWES year or three (3) months before the commencement of Industrial Attachment.
- iv. Apply job-specifications as prepared for all accredited courses and award appropriate credit units in accordance with the Federal Government minimum academic standard guidelines;
- v. Identify placement opportunities for Students attachment with Employers;
- vii. Supervise Students at their places of attachment and sign their logbooks;
- viii. Organize orientation courses in collaboration with the ITF for their Student;
- xi. Submit all completed ITF Form 8 to the nearest ITF Area Office;

2.5 EMPLOYERS OF LABOUR

- i. Collaborate with Institutions of higher learning in the preparation of job specification for approval courses.
- ii. Accept Students for Industrial Attachment as stipulated by ITF Decree No. 1971 as amended 2011.
- iii. Provide welfare services-medication and payment for hospitalization of Students while on attachment
- iv. Participate fully in the assessment of Programmes and Students by completing the necessary instrument Form 8, Students logbook etc.
- v. Allow Students have access to their facilities;
- vi. Appoint an Industry-based Supervisor for Students on attachment.

2.6 STUDENTS

- At the point of registration, students must submit their Matric No., Phone No. and bank details (Bank Name, Account Name, NUBAN Account Number and Sort Code) to their school's SIWES Coordinators.
- ii. Attend institution's SIWES orientation programme before going on attachment.
- iii. Obedient to constituted authorities and adhere strictly to all rules and regulations of the Organization where they are attached;
- iv. Be regular and punctual at respective places of attachment;
- v. Avoid change of places of attachment, except in special circumstances which must be determined and approved by their Institutions' Supervisor, the Employer and or the ITF;
- vi. Complete Students Commencement Attachment Form (SCAF) and get it endorsed by the Employer for onward submission to ITF;
- vii. Record all training activities and other assignment in log book and complete ITF Form-8 to ensure proper assessment;
- viii. Be diligent, honest, conscientious and take pride in the protection of Employers property throughout the attachment period.

3.0 ELIGIBLE COURSES FOR SIWES FUNDING

Courses in Universities, Polytechnics, Colleges of Technology/Agriculture and Colleges of Education in which Industrial Attachment is compulsory and centrally funded are restricted to Engineering and Technology; including Environmental Studies and other courses that may be approved. All students of NCE (Technical), NCE (Business), NCE (Agriculture), NCE (Home Economics), NCE (Creative Arts and Design) and NCE (Computer Education) Course in Colleges of Education are also included.

3.1 DURATION OF ATTACHMENT FOR SIWES FUNDING

5/NO.	TERTIARY INSTITUTIONS	PERIOD	DURATION	REMARKS
1	Universities	At the end of 200, 300 or 400 Level of degree programme	6 months	Students in the preliminary classes and post-graduate students are not eligible for SIWES

2	Polytechnics, Monotechnics, Colleges	At the end of 1st	4 months	National
	of Technology	year of two year ND		Diploma
		progamme		Programme only
3	Colleges of Education	At the end of 2 nd	4 months	NCE Technical and
	_	year of the 3 year		other approved
		NCE programme		courses

4.0 COMPULSORY REQUIREMENTS

- 4.1 Master List: Is a comprehensive list of Students expected to participate in SIWES in a given year. It indicates the following; name of students, matriculation number with year of matriculation, programme of study, level of study, dates showing duration of attachment and nationality. This list must be prepared serially according to matriculation number. All Master Lists are to be submitted prior to the submission of Placement Lists by participating Institutions to the respective Supervisory Agencies for vetting and approval.
- 4.2 Placement List: Is a list that indicates name of students, master list number, matriculation number with year of matriculation, programme of study, level of study, period and date of attachment, nationality and specific places students are expected to do their attachment. The Placement lists should be prepared and arranged according to department with bank details (NUBAN Account Number and Sort Code). All Placement lists are to be submitted by participating Institutions to their respective Supervisory Agencies for vetting and approval.
- 4.3 Summary Sheet: All Placement Lists must include a Top Page listing in a summary form:
 - a) Total number of students on each programme
 - b) Total number of students involved

4.4 ORIENTATION PROGRAMMES

All Students accepted for SIWES must attend orientation programme on SIWES organized by their Institutions in collaboration with the ITF;

4.5 SUPERVISION OF STUDENTS

Students on attachment are to be supervised by their Institutions 'supervisors and the staff of the ITF. Professional staff of the ITF and Institutions' Supervisors are expected to visit Students at least two times during attachment.

4.6 LOG-BOOKS

The Logbooks issued to Students on attachment by Institutions must be examined, vetted and signed by Institutions and Industrial-based Supervisor and the ITF staff during supervision.

5.0 SIWES CO-ORDINATING UNITS

Until recently, very few institutions saw the need for the establishment of Industrial Coordination Unit, and even where they established, their activities seemed to be narrowed down to only placing Students on Industrial Attachment. However, these Units could be utilized to foster closer links between Institutions of Learning and industries. They could be developed to collect data and information on skills needed by industries and challenges facing Industries with a view to referring them to appropriate Institutions Departments for development of learning tasks to be carried out by students. By inference, real-life case studies could be made available to lecturers and students as well.

The Units, by virtue of their positions as Industrial Liaison Offices, could be the most appropriate channels for guiding Students in career and job placement opportunities. Furthermore, it could incorporate such schemes, as the College-based Students' Work Experience Programme, which involves setting up pilot projects like Proto-type Industries and Protection Centers where Students can acquire industrial experience during the early periods of their training.

6.0 ALLOWANCE

The current Students and Institutions' Supervisory allowances approved by the Federal government are as follows:

- a. Students -N2,500.00 per Student per month
- b. Institutions Supervisory N250.00 per Student per month

6.1 PAYMENT OF STUDENTS' ALLOWANCES

All payments will be made on-line directly into student's accounts by e-payment.

Payments of supervisory allowances

- > The Supervisor Allowance payable to each Institutions is computed based on the number of completed Form 8 (end of programme report sheet) submitted by the students.
- Each institution must open a bank Account and furnish ITF Headquarters with its NUBAN Account Number and Sort Code.
- > All payment will be made on line directly into the Institutional bank account by e-payment.

7.0 SIWES FORMS

7.1 SCAF (Students Commencement of Attachment Form) - To be given to all Students during pre-attachment orientation programme (Appendicx C1). These forms are to be completed by the Employers and forwarded to the nearest ITF Area Office.

7.2 ITF FORM 8

This is the End-of -Programme Report Sheet to be completed by Students, Employers and Institutions before the forms are sent to ITF Headquarters through the Area Offices (Appendix D1). The completion of this form is evidence of Students' participation and supervision in the programme.

8.0 SUMMARY

The success of the Scheme is dependent on the coordinated efforts by the Federal Government, the Ministry of Industry, Trade and Investment, Ministry of Education, the Industrial Training Fund, Higher Institutions of Learning, Employers of Labour and Students in their involvement in the administration and management of the Scheme.

It is pertinent to mention that the Scheme is aimed at promoting the much-desired technological know-how for the advancement of the Nation. This laudable Scheme

amongst others will surely develop the needed highly-skilled labour forces required to build an indigenous self -reliance economy envisaged for Nigeria.

9.0 LIST OF DISCIPLINES/COURSES APPROVED BY THE NATIONAL UNIVERSITIES COMMISSION (NUC) FOR SIWES FUNDING

9.1 AGRICULTURE

- > Crop and Soil Science
- > Animal Science
- > Agriculture Economics and Extension
- > Forestry
- > Fisheries
- > Home Economics

9.2 ENGINEERING AND TECHNOLOGY

- Agriculture and Forestry Engineering
- > Food processing/Food Science and Technology
- Water Resources and Environmental Engineering
- Chemical Engineering
- > Biotechnology
- > Engineering Management
- Farm Machinery Engineering
- Transport & Highway Engineering
- Wood Technology
- > Maritime Management & Technology
- > Mechanical Engineering
- > Production Engineering
- Civil Engineering
- Building & Construction Engineering
- > Materials & Metallurgical Engineering
- > Polymer & Textile Engineering
- > Fiber Science & Technology
- > Mining Engineering
- Mining & Materials Technology
- Petroleum & Petrochemical Engineering

- > Computer Engineering
- > Ceramic Engineering
- > Commination Engineering
- > Industrial Engineering
- > Electrical Engineering
- > Electronic Engineering

9.3 ENVIRONMENTAL SCIENCE

- > Architecture
- > Building & Constriction Technology
- > Estate Management
- > Quantity Surveying
- > Urban & Regional Planning
- > Fine Arts
- > Industrial Design
- > Geography
- > Land & Estate Management
- Construction and Geodesy & Photogrammetry
- > Meteorology

9.4 EDUCATION

- > Technical Education
- Business Education
- > Library Studies

9.5 MEDICAL SCIENCE

- > Physio-Therapy and Medicinal Rehabilitation
- > Nursing
- > Medical Radiography
- > Medical Laboratory Science
- > Pharmacy

9.6 SCIENCES

- > Zoology
- > Microbiology

- > Biochemistry
- > Botany
- > Computer Science
- > Geology
- > Geophysics & Applied Geophysics
- Industrial Mathematics
- > Industrial Physics
- > Industrial Chemistry
- > Applied Microbiology
- > Applied Biochemistry

9.7 VETERINARY MEDICINE

10.0 LIST OF DISCIPLINE/COURSES APPROVED BY THE NATIONAL BOARD FOR TECHNICAL EDUCATION (NBTE) FOR SIWES FUNDING (Accredited National Diploma (ND) Programmes)

10.1 Agriculture and Related Technology

- > Agriculture Engineering Technology
- > Agriculture Technology (General Agriculture)

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