Report on Mapping of Qualifications

with

National Classification of Occupations (NCO) Codes

National Council for Vocational Education and Training (NCVET)

22nd August 2023

Contents

1. Introduction

1.1 The concept of *occupation* is defined as a "set of jobs whose main tasks and duties are characterized by a high degree of similarity". A person may be associated with an occupation through the main job currently held, a second job, a future job or a job previously held. Occupational classification plays an important role in addressing the issues of the working population. Worldwide industrialization and globalization have increased the demand for a new international standard for occupations to facilitate the collection and reporting of related data. Classification of Occupations is intended both for use in compiling statistics and for client-oriented uses such as the recruitment of workers through employment offices, the management of migration of workers between countries and the development of Vocational Education & Training (VET) courses and guidance.

1.2 The VET & Skilling ecosystem has evolved rapidly in India in the past with policy impetuses like the National Skill Development Policy and Skill India. The focus is on to create a workforce empowered with the necessary and continuously upgraded skills, knowledge and internationally recognized qualifications in order to gain access to decent employment and ensure India's competitiveness in the dynamic global market.

1.3 India's working-age population is rising and stood at 68% compared with 67.3% in 2020 and 66% in 2015, according to the UNFPA's State of World Population Report 2023. India will have the youngest workforce in the world with a median age much lower than other countries. The other countries will have a higher proportion of the population which is not in the working-age group which will result in a shortage of manpower to the tune of 56 million. Indian workforce can fill this gap in India and abroad and result in greater economic growth as envisioned by the Hon'ble PM to make India Skill Capital of the World by creating a pool of world class skilled human resource in the country.

1.4 For development of a VET & Skill course/qualification which is internationally mapped and recognised, classification of the occupations in the country and their further mapping with international classifications becomes a prerequisite. Based on such classification each job in the country could be mapped to jobs of similar nature across countries providing necessary policy inputs for development of qualifications along with the enhanced international mobility for the learners.

2. Background

2.1. International Classification of Occupations

2.1.1. The International standard classification of occupations, abbreviated as ISCO, is an international classification under the responsibility of the International Labour Organization (ILO) for organising jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job.

2.1.2. The first ISCO version, known as ISCO-58, was adopted in 1957 by the Ninth International Conference of Labour Statisticians; subsequent versions were ISCO-68 (Eleventh International Conference of Labour Statisticians, 1966), ISCO-88 (Fourteenth International Conference of Labour Statisticians, 1987) and the fairly recent ISCO-08, adopted in December 2007. ISCO-08 is a four-level hierarchically structured classification that allows all jobs in the world to be classified into 436-unit groups. The framework used for the design and construction of ISCO-08 is based on two main concepts: the concept of job, and the concept of skill.

2.1.3. A job is a "set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self-employment".

2.1.4. Skill is defined as the ability to carry out the tasks and duties of a given job.

2.1.5. ISCO 08 has a four-digit coding structure with a single digit representation for Major Groups, Sub-Major Groups, Minor Groups, and Unit Groups. This classification system contains the following categories:

a. 10 - Major Groups

b. Sub-Major Groups

c. Minor Groups

d. Unit Groups

2.1.6. Each group in the classification is designated by a title and code number and is associated with a description that specifies the scope of the group as follows:

a. Major Group is denoted by a 1-digit code, example 2 Professionals.

b. Sub-Major Group is denoted by a 2-digit codes, example 22 Health Professionals

c. Minor Groups are denoted by 3-digit codes, example 221 Medical doctors.

d. Unit Groups are denoted by 4-digit codes, example 2211 General Medical Practitioners

| Major-Group →	Sub-Major Group →	Minor Group →	Unit Group
2. Professionals →	22. Health Professionals →	221. Medical-Doctors →	2221. Generalist-Medical-Practitioners
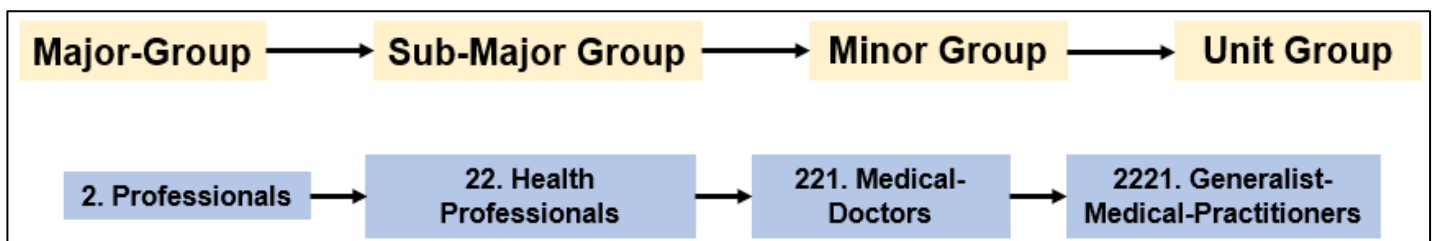
2.2. National Classification of Occupations

2.2.1. NCO is a classification of occupations, which describes and assigns codes to the various occupations in the country and aligns it with the ISCO. The classification of occupation is a categorization of individual occupations on the kind of work and skill-level involved in that particular occupation. It is intended that all the job titles in the nation can be assigned to one (and only one) of these categories or codes.

2.2.2. The first effort in the direction of preparing an occupational classification system in India was made by the then Directorate General of Resettlement and Employment, DGRE [later called the Directorate General of Employment and Training (DGE&T) and now referred to as Directorate General of Employment (DGE)] in 1946 in bringing out a publication titled "Guide to Occupational Classification" primarily to be used by employment service for day-to-day work at the Employment Exchanges such as registration of applicants, documentation of vacancies, compilation of statistical data, etc. It was an industrial-based classification and was framed after the British pattern.

2.2.3. International Labour Organization (ILO) brought out the first International Standard Classification of Occupations (ISCO) in 1958 with a view to bring out a complete occupational classification system, which could help in promoting international comparability of statistical data relating to occupations. The then DGE&T accordingly took up the work of preparing a National Classification of Occupations (NCO) on the lines of ISCO and brought out "National Classifications of Occupations – 1958". NCO – 1958 contained detailed information about 1990 occupations.

2.2.4. The ILO introduced a number of changes in the ISCO – 58, namely called it ISCO – 66, applied the principle of 'type of work performed' more rigidly, and revised the Major, Minor, and Unit Groups (corresponding to NCO Divisions, Groups, and Families) of the classification. In order to ensure that NCO – 68 is compatible with ISCO – 66, DGE&T revised the code structure so that the new NCO, called NCO – 68, would be patterned after the ISCO – 66. While adopting the ISCO – 66 code structure, deviations were made, wherever necessary, to suit the Indian conditions and settings.

2.2.5. After a gap of about 3 decades the NCO – 2004 was brought out. During this period, the economic, social, industrial and agrarian fields underwent drastic changes. Globalization and economic liberalization had infused competitiveness amongst various industries. This led to changes in the work process and skill level of the workers. This also brought in a totally new class of jobs and functions. The ILO came out with a new version wherein not only the work performed, but also the skill level required was considered in the codification of occupations. This classification of skill levels was more or less based on the educational categories

and levels, which appear in the International Standard Classification of Education (ISCED). The revision of NCO – 2004 was carried out in line with the approach adopted by ILO in its ISCO – 88. As such, all the Unit Groups in ISCO – 88 were adopted as Families at 4-digit level, even though in some cases no Occupations at the specified skill level were identified so far. This was done to accommodate Occupations, which may become available in the near future. Owing to introduction of the concept of skill level and new aggregation at six-digit level in the NCO – 2004 classification, the code structure was radically changed. This resulted into breaking up and/or merger of some Divisions, Groups, and Families of the 1968 version. Due to this, exact equivalents of all the codes in the 68 version may not be available.

2.2.6. To map the job roles with the revised ISCO -2008 and to cater to dynamic requirements of job market the revision of NCO was undertaken and revised NCO was published in 2015. ISCO – 2008 and NCO 2015 are currently in use.

2.2.7. The evolution of ISCO and NCO is depicted in the diagram below:
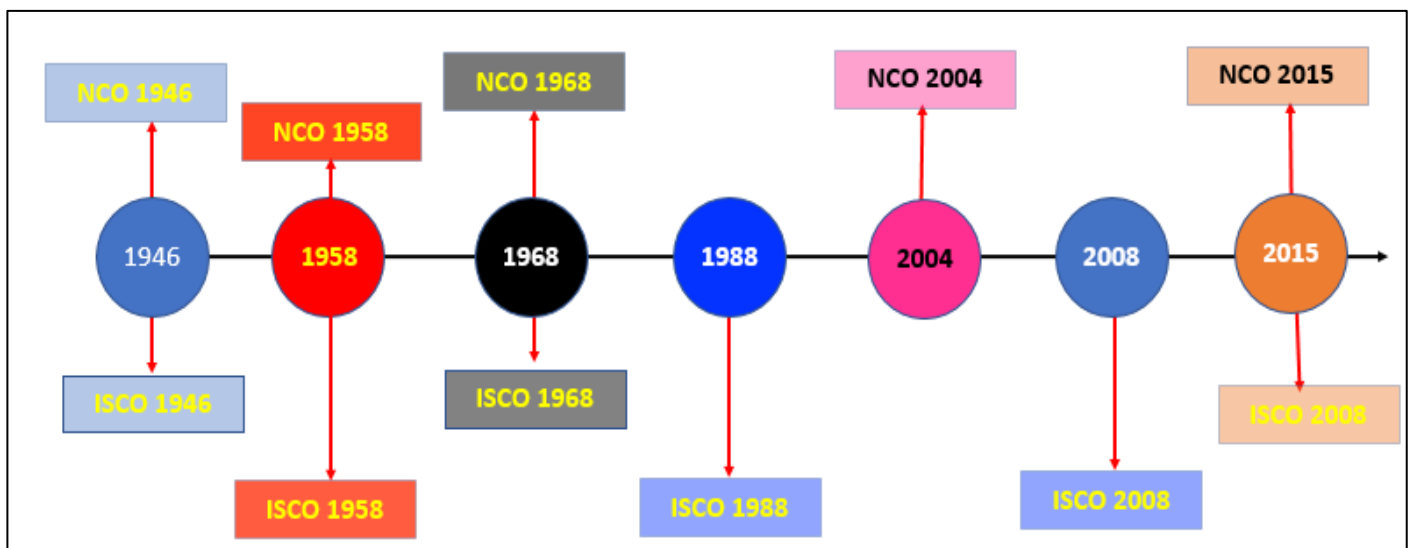
2.2.8. The National Classification of Occupation – 2015 is an 8-digit coding structure which was mapped and aligned to ISCO – 08 with an addition of 2 digits. The coding structure of NCO – 2015 is as follows:
a. Before Decimal:
    i. The first digit will represent the Division (Major Group in ISCO)
    ii. The first two digits will represent the Sub-Division (Sub-Major Group in ISCO)
    iii. The first three digits will represent the Group (Minor Group in ISCO)
    iv. The first four digits will represent the Family (Unit Group in ISCO)

(A decimal is introduced after the first four digits in order to create a distinction between the Families and individual Occupations)

 b. After Decimal:
 i. The first two digits will represent the different occupations that can be combined under the given Family.
 ii. The last two digits shall represent the availability of a NSQF aligned Qualification for the job role.

For example: 8153.0111 Code for Sewing Machine Operator.
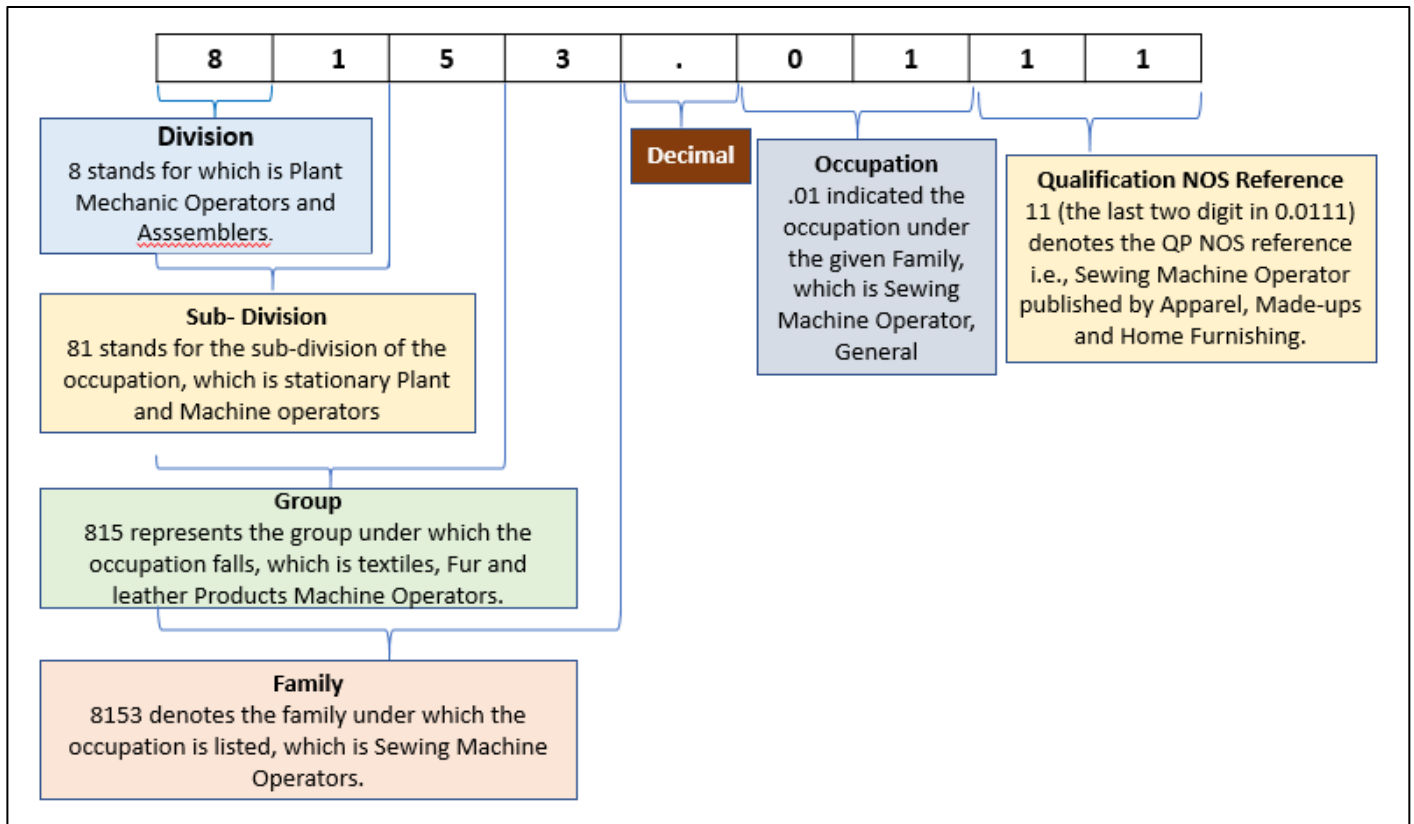
 c. The value of the last two digits would depend on two scenarios:

  1.1.1 If Qualification is available, then the value of the last 2 digits after the decimal will be between1-99 (arranged sequentially).
  1.1.2 If Qualification is unavailable, then the value of the last two digits after the decimal will remain 00.

2.3. Skill Levels & NCO

NCO 2015 maps occupations with 4 levels of skills as prescribed by ISCO. These skill levels largely map occupations with the years of formal educational requirements. However, to suit the Indian requirements the cognizance of informal skill has been taken and the same has been incorporated in Skill Level I of NCO 2015. NCO 2015 has designed 9 divisions starting

from serial no 1 to 9 in a manner that each division represents a particular skill level required to perform the corresponding jobs e.g. NCO 2015 division no 4 – 'Clerks' are mapped to Skill Level II which means any occupation falling under this division shall require secondary education level (11 to 13 years of education). *Detailed tables and explanation regarding the Skill Levels & corresponding NCO Divisions are placed as Annexure I.*

3. Vocational Education & Training (VET)

3.1 The National Council for Vocational Education & Training (NCVET)

3.1.1   The National Council for Vocational Education and Training (NCVET) was notified by the Government of India vide gazette notification no. SD17/113/2017-E&PW dated 05th December 2018. NCVET as an overarching skills regulator regulates the functioning of bodies engaged in vocational education and training, both long and short-term, and lays down minimum standards for the functioning of such bodies. NCVET strives to integrate fragmented regulatory systems involving multiple stakeholders and infuse quality assurance across the entire vocational training value chain, leading to strengthened outcomes.

3.1.2   As per Para 16, Point (f) of Chapter III (Functions and Powers of the Council) of the NCVET Gazette Notification, one of the important functions of NCVET is to frame guidelines for approval of qualifications & approve qualifications in the manner set out in such guidelines.   NCVET approves qualification through the National Skills Qualification Committee (NSQC) which is housed in NCVET. Constituted by the Council, the NSQC comprises, amongst others, of the representatives from the select Central Ministries, the regulatory bodies of education and skilling ecosystem namely University Grants Commission (UGC) and All India Council for Technical Education (AICTE), Director General Training (DGT), Central Board of School Education (CBSE), select SSDMs (by rotation), select Industry Associations, the Awarding Bodies, and sectoral representatives. NSQC is the apex committee for approval of qualifications in order to align them with the National Skills Qualification Framework (NSQF).

3.2 The National Skills Qualification Framework (NSQF)

3.2.1   The National Skills Qualification Framework (NSQF) is an outcome and competency-based framework which organizes qualifications according to a series of levels of knowledge, skills, aptitude, and responsibility levels defined in terms of learning outcomes which the learner must acquire through formal, non-formal or informal learning which may comprise of academics, vocational education, training & skilling and experiential learning including relevant experience and proficiency/ professional levels acquired, subject to assessment. Thus, the NSQF is a skills' quality assurance framework.

3.2.2   The National Skills Qualification Framework (NSQF), which is an outcome and competency-based framework is composed of levels 1 (one) to eight (8). Each NSQF

level is defined and described by a set of level descriptors expressed in terms of learning outcomes in five domains, which describe in general terms, the minimum knowledge, skills, and attributes that a learner needs to acquire in order to be certified for that level. The five domains are (1) professional theoretical knowledge, (2) professional and technical skills/ expertise, (3) aptitude, mind-set, soft skills, employment readiness & entrepreneurship skills, (4) broad learning outcomes and (5) level of responsibility.

3.2.3   The revised NSQF now provides for not only qualifications but also the smaller units of competencies like the National Occupational Standards (NOS) and Micro Credentials (MC) to be approved and aligned with the framework.

3.2.4   Every qualification defines and provides for the Occupational Maps and Progression Pathways to enable both horizontal and vertical mobility of students/ learners. The progression pathways shall be defined in each qualification to facilitate such vertical and horizontal mobility. For this, Awarding Bodies shall develop clearly defined Occupational Maps (OMs) of the sector concerned. Such OMs may show pathways within the same sector or across sectors.

3.2.5   The National Credit Framework (NCrF) enables creditisation of every learning hour subject to its assessment. The Credit levels to be assigned are based on the cumulative numbers of years of learning with assessment. "Credit" is recognition that a learner has successfully completed a prior course of learning, corresponding to a qualification at a given NSQF/ NCrF level. For each such approved qualification, the student/ learner would have put in such number of hours of learning (academic, vocational education & skill and experiential learning) or workplace experiential learning including relevant proficiency and professional levels acquired, so as to achieve the pre-defined and approved learning outcomes as part of the qualification, subject to valid, reliable assessment by a duly recognized assessment agency. NSQF aligned qualifications enable creditisation, Recognition of Prior Learning (RPL), extended, enhanced and improved mobility for the learner amongst other benefits.

4. Mapping of Qualifications with NCO

4.1   Introduction

One of the main objectives of any classification of occupations is to identify the occupations and jobs existing in the economy so that the gaps between the demand and supply of the skilled manpower may be ascertained. Based on such data, policy to address skill gaps which includes designing required VET & skilling programs is drafted and implemented. Classification of occupations also helps in mapping of domestic job roles of any country with corresponding international job roles classified under similar nature enhancing the international mobility of learners. Therefore, classification of occupations plays a major role in VET & Skill Development policy of any nation.

4.2 **Relevance** (Benefits of Mapping of Qualifications with right NCO codes)

4.2.1 Data generation with respect to existing job roles in the economy could further benefit in the following:

    a. Identification of existing job roles

    b. Identification of redundant job roles

    c. Identification of development in technology and other skills over a period of time i.e. Trend Analysis

    d. Identification of future job roles based on trends.

    e. Identification of skill gaps & skill mismatch

    f. Growth Analysis and predictions related to sectors/subsectors and job roles.

4.2.2 Based on the data analysis, develop VET & skilling Qualifications/NOS/MC for skilling, reskilling & upskilling (Need based development)

4.2.3 Mapping of Qualifications with international job roles; identification of gaps and developing training standards catering to international requirements

4.2.4 Designing & developing customised bridge courses for filling skill gaps both nationally & internationally

4.2.5 Equitable & efficient allocation of resources to VET & skilling initiatives based on actual & verified requirements.

4.2.6 Harmonised VET & skilling policy development and implementation

4.2.7 Facilitate international mobility with relevant skill development initiatives.

4.2.8 Development of authentic & market validated occupational maps providing for verified vertical & horizontal progression avenues to a learner

4.2.9 Identify duplication of efforts or over emphasis in one occupation or job role

4.3 Current Mechanism of NCO Mapping

As a standard practice of NSQF alignment, all Qualifications are required to be mapped to a NCO code. All the Qualifications being submitted for NSQF alignment are required to be submitted in a template called 'Qualification File'. Qualification File serves as a standard template of bringing together the major parameters of a skill curriculum with its strategy of assessment, evidence of need, training requirements, credit values, etc. among others around a job role. Serial No. 14 of the Standard Qualification File Template requires information regarding the NCO Code of the proposed qualification (job role) to be submitted. All the Awarding Bodies are required to submit the complete Qualification File Template along with curriculum & other required annexures to NCVET for NSQF alignment. Accordingly, all Qualifications have the corresponding NCO Codes mapped and recorded in Q File template. In case an AB cannot find any matching NCO for the proposed Qualification, the same has to be communicated to NCVET.

4.4 Challenges

4.4.1 As explained above, mapping of NCO with Qualifications is a standard exercise. However, during the implementation certain anomalies in assignment of NCO codes to the Qualifications were observed as follows:

a. **Non-Assignment of Code:** Some existing NSQF aligned & approved qualifications have not been assigned/ mapped to any NCO Codes.

b. **Incorrect Assignment:** Some NSQF aligned & approved qualifications have been assigned wrong NCO Codes. When the learning outcomes & curriculum of the qualification do not match with the description of the mapped NCO occupation it amounts to a mismatch. Generally, the mismatch is reflected through the nomenclature contradictions. However, there could be cases where there could be different nomenclature of the qualification than that of the corresponding NCO occupation but the learning outcomes match.

c. **Non-Availability of Codes:** For some qualifications no matching NCO codes are available e.g., futuristic job roles, Industry 4.0 etc.

d. **Multiple Codes mapped to a single Qualification:** Some qualifications have been assigned multiple codes of different groups and families and sometimes even of different divisions.

e. **New Skilling Areas:** Further, with an objective to recognise all types of VET & Skill learning across various types of institutions & systems both formal & informal, various types of qualifications are being aligned to NSQF e.g., Indian Knowledge System (IKS). All such qualifications shall also require relevant NCO Codes which currently are unavailable. With the integration of skilling in the Defence Forces with the VET & Skilling ecosystem, there are number of qualifications relevant to both industries and Armed Forces for which new NCO codes may have to be assigned in consonance with the ISCED/ISCO.

f. **Assigning Codes to New Age Qualifications:** To cater to the dynamic requirements of the job market NCVET promotes and approves Multiskilling & Cross sectoral Qualifications. Smaller competencies units in terms of National Occupational Standards (NOSs) & Micro Credentials are also being approved and aligned to NSQF. However, assigning NCO codes to such new age qualifications & smaller units of competencies requires clarity and guidelines.

g. **Assigning Codes to Rationalised Qualifications with Electives:** The code assignment to a qualification where choice of an elective is provided to learner also needs clarity since the competencies based on the elective a learner chooses will alter. Therefore, a single occupation with multiple electives might lead to different job roles and might map with multiple NCO codes.

h. **Lack of Clarity amongst Awarding Bodies:** It was also observed that the ABs lacked clarity about the concept of NCO Codes, its importance & relevance and its overall application. Therefore, the ABs lacked the required motivation with respect to NCO codes assignment which often led to non-assignment or mismatch between NCO codes & qualifications.

5. Committee on Mapping of Qualifications with NCO Codes

5.1 Composition

To address the issues listed above, the National Skills Qualification Committee (NSQC) in its 26th meeting held on 31st January 2023 proposed to form a committee on mapping of qualifications with NCO codes under the chairpersonship of Executive Member, NCVET with members from Ministry of Labour & Employment (MoLE), MSDE, UGC, AICTE, NCVET, DGT, NSDC and select Awarding Bodies. Accordingly, the 'Committee on Mapping of Qualifications with NCO Codes' was notified on 14th February 2023 vide an Order No. 32001/12/2023/NCVET. The detailed Order containing composition of the Committee is placed as Annexure II.

5.2 Terms of Reference

5.2.1 Develop draft instructions/ Guidelines for reference by various ABs and stakeholders with respect to usage and mapping of NCO codes to qualifications/ job roles.

5.2.2 Propose an action plan for the mapping of VET qualifications including in the future/emerging skills and Industry 4.0 qualifications with NCO codes across sectors/ subsectors/ job roles etc., in line with the sectoral occupational maps prepared by the respective Awarding Bodies.

5.2.3 Review and analyse the status of NCO mapping across all the existing NSQF aligned and approved qualifications along with their occupational maps to identify the gaps for taking appropriate actions for bridging the same.

5.2.4 Identify and list job roles that have not been assigned NCO codes:
   a. Assign existing NCO codes to the qualifications.
   b. Identify a list of qualifications for which NCO codes are not available.

5.2.5 Devise process for identification and rectification of the misalignment of NCO codes with the VET qualifications.

5.2.6 Devise process for mapping/ revising of nomenclature of the occupations as per NCO/ evolved market requirements.

5.2.7 Review and realign (if required) the NCO coding & nomenclature of occupations for high international mobility with the international nomenclature (ISCO). A capacity building plan may be created for various stakeholders.

5.3 Meetings & Observations

5.3.1 Four Meetings of the Committee were held as follows:
   a. 1st Meeting on 20th February 2023
   b. 2nd Meeting on 21st March 2023
   c. 3rd Meeting on 11th April 2023
   d. 4th Meeting on 25th July 2023

The Minutes of the Meetings are attached as Annexure III, IV, V and VI.

5.3.2   The Committee during its meetings emphasised that with the increased focus on VET & Skilling especially in light of positive policy shifts like the National Education Policy (NEP) 2020 and the National Credit Framework (NCrF) the scale of VET & skilling is increasing. With enhanced integration of general education and vocational education, recognition of qualifications for heritage & traditional skills and skills imparted by defence forces, the number & type of ABs getting into the formal VET & skilling ecosystem is also rising. Additionally, the changing educational/skilling ecosystem owing to technological advancements, changing industry demands and futuristic qualifications, many occupations have become obsolete, while new occupations have emerged.

5.3.3   Therefore, committee reckoned that right mapping of NCO codes with the qualifications is of utmost importance in the current scenario. Committee observed that for right mapping following steps may be undertaken:
   a. Identify the gaps/issues in current mapping done by various ABs.
   b. Discuss the gaps/issues with the concerned AB & MoLE
   c. Identify the common issues and provide a mechanism to close the gaps in consultation with MoLE
   d. Increase awareness about the NCO Codes including its history, relevance, benefits and application.
   e. The skill levels reflected by the NCO codes are not properly understood by the stakeholders esp. Awarding Bodies. This sometimes leads to mismatch between the NCrF/NSQF level of the qualification with the skill level reflected by the NCO code.
   f. The ABs assigned NCO codes only till the family or occupation level. The last two digits after decimal representing the qualification were not being utilised while assigning the code. Owing to this all-multiple qualification were being assigned the same codes which mostly ended at occupation level. This perhaps could largely be attributed to lack of understanding with respect to the purpose and applicability of the last two digits of the NCO code.

5.3.4   Accordingly, following actions were undertaken by the committee:
   a. 09 sub-groups comprising of NCVET recognised Awarding Bodies like DGT, NIELET, SSCs, were formed to confirm the veracity of the NCO codes already assigned to NSQF-aligned and approved qualifications and, if necessary, map them correctly. The sub-groups were advised to draft individual reports and submit the same to Committee.
   b. Drafting of Guidelines/ SOP and a handbook preferably with use cases, that could be used as reference document by various ABs and stakeholders with respect to mapping of NCO codes to qualifications/ job roles being   submitted for NSQF

alignment of qualifications was undertaken. MoLE along with NCVET was tasked with development of this document.

c. Preparation of a capacity building plan for various stakeholders to enable them for realignment of the NCO coding & nomenclature of qualifications was undertaken. MoLE was requested to plan and undertake capacity building workshops in consultation with NCVET.

d. The committee decided to device a mechanism/process to assign new NCO codes to emerging job roles, multiskilling/cross-sectoral qualifications etc. This mechanism to be devised by NCVET in consultation with MoLE keeping in consideration the requirements of stakeholders.

5.4 Major Findings

5.4.1   The 09 sub-groups with CEOs of select Sector Skill Councils as lead members submitted their respective reports about mapping of their qualifications with NCO codes. The following were the main inferences attained from the exercise:

a) 156 qualifications out of 2157 qualifications had been incorrectly mapped to the NCO codes.

b) 256 qualifications could not be aligned with any NCO codes.

c) Non availability of codes for Future skill/industry 4.0 qualifications.

5.4.2   Detailed findings of the Awarding Body wise qualification analysis undertaken is as below:

Total number of qualifications	2157
No. of job roles that have not been assigned NCO codes	256
Qualification with no NCO code where NCO code has been proposed	236
Qualifications for which NCO codes are wrongly mapped	156

Note: The qualifications which have been archived are not considered for the exercise. The qualifications which were active as on February 2023 have been considered for the exercise. Accordingly, 2157 qualifications of 45 ABs have been considered under this exercise.

The details of the Exercise undertaken by the sub groups is attached as Annexure VII.

5.5 Capacity Building

As per the decision of the committee all the NCVET recognised Awarding Bodies were divided in three different groups and capacity building workshops were held by MoLE for these groups. These groups also comprised NCVET officials. The details of the workshops held are as below:

Group Name	Date	Time	Venue
Group 1	28/04/2023	11:30 AM – 01:00 PM	NICS, Noida
Group 2	04/05/2023	02:30 PM – 04:00 PM	
Group 3	11/05/2023	11:30 AM – 01:00 PM	Video conferencing

The composition of the Groups is attached as Annexure VIII.

5.6 Development of Handbook

As decided by the committee an exercise to develop user Handbook/SoP having guidelines/instructions for correct and easy mapping of qualifications with qualifications across sectors was undertaken. The existing NCO codes document is exhaustive but needed more simplification and granularity for awareness purposes. As a result, DGE and NCVET developed indicative guidelines/instruction on the use of NCO codes and their mapping to qualifications/job roles for use by various ABs and stakeholders. These guidelines/instructions are attached as **Annexure IX**.
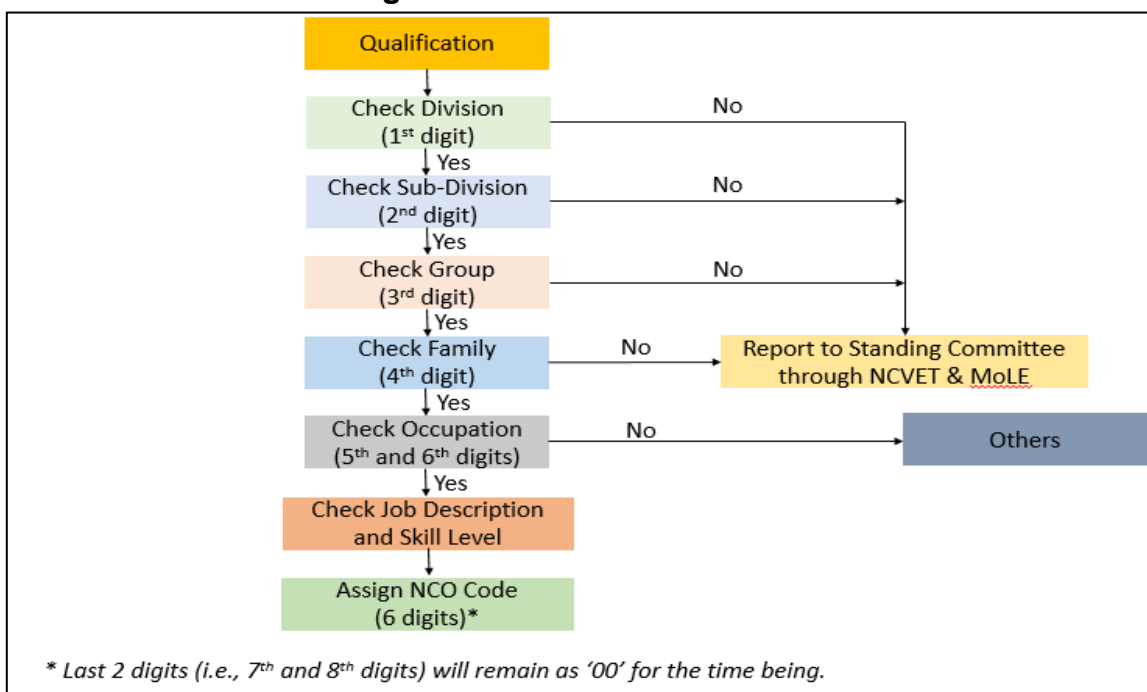
5.7 Recommendations

5.7.1   The Committee observed that NCO codes branch out in a highly standardized way, resulting in an accurate depiction of the kinds and types of job roles present in that occupation. These are also in line with international standards, which will create opportunities towards international equivalence and mobility of the learner's undertaking skilling and TVET qualifications and curriculum.

5.7.2   The Committee seeks to address the pertinent factors mentioned in the Issues and Observations sections and map all NSQF aligned and approved qualifications with National Classification of Occupations (NCO) Codes. One of the ways to effectively identify, analyse, and resolve the problems encountered so far while mapping the qualifications to the NCO Codes was to diligently carry out a thorough exercise of removing the anomalies in the currently mapped NCO codes. Based on major findings of this exercise, following is recommended by the Committee:

a. **Standing Committee on NCO:** Since VET & Skilling is a dynamic ecosystem with evolving requirements and trends, the qualification development & alignment of qualifications to NCO codes is also a dynamic activity. Also, with expanding scope and operations of VET & Skilling in the country, new stakeholders in the form of ABs will keep entering the ecosystem. In addition, NCO codes are framed for long intervals as its revision is undertaken after years. Therefore, to address the day-to-day operational issues, interpretational matters and for conflict resolution with respect to mapping of qualifications with NCO codes, a standing committee may be formed. This committee must have representatives from NCVET and MoLE respectively amongst others and be jointly chaired by EM, NCVET and DDG, MoLE. This committee shall be housed at NCVET and shall hold meetings as and when required depending on the matters to be addressed. Additionally, it is also recommended that the nodal officers from both NCVET and MoLE with respect to assignment of NCO Codes to qualifications may be nominated, who shall serve as a single point of contact with respect to all code assignment matters.

b. **Development of Online Solution for Authentic Assignment of NCO Codes:** Committee recommends that an online solution which works on Artificial Intelligence and Machine Learning to map various parameters of a qualification with the listed occupations under NCO may be developed. Such solutions should be able to map the qualifications with the most suitable and relevant NCO Codes on the click of a button. Such solutions shall also be able to find out discrepancies and non-availability of codes.

c. **Assigning Codes to Qualification:** Assignment of relevant codes to qualifications requires understanding of the NCO concepts and classification. ABs generally find it difficult to identify the relevant occupations under which the qualification shall lie. To make assignment of codes easy and swift:
   i. Two process flow charts have been designed. The flow charts with use cases are explained as follows:

   A. Downward Assignment

* Last 2 digits (i.e., 7th and 8th digits) will remain as '00' for the time being.

USE CASE

Engraver- NCO 2015\ 7313.1900

The methods outlined in the flow chart above can be used to determine the appropriate NCO code for a qualification called 'Engraver' produced by HCSSC.

Step 1: Determine the relevant Division, i.e., 7, under which the qualification falls, is the 'craft and related trades workers category'.

Step 2: The suitable sub-division for the qualification is now identified as 73, which is handicraft and printing workers.

Step 3: The Group is now found to be 731, which is handicraft workers.

Step 4: Next, look in the Family for the qualification 7313 under jewellery and precision metal workers.

Step 5: When reviewing the job description and the skill level for the qualification, the 5th and 6th numbers for the code are recorded as 19.

Step 6: As a result, the qualification's NCO Code is 7313.1900.

Note: The last two digits (i.e., the 7th and the 8th digits) will remain as 00 for the time being. Please refer to recommendation no. 'vii' for details.

Last 2 digits (i.e., 7th and 8th digits) will remain as '00' for the time being.

Drone Developer (Software) – NCO 2015\ 2512

To determine the relevant NCO code for the 'Drone Developer (Software)' qualification developed by IT-ITeS SSC, complete the steps outlined in the flow chart above:

Step 1: Determine the relevant Division, i.e., 2, under which the qualification falls, is the 'Professionals'.

Step 2: The suitable sub-division for the qualification is now identified as 25, which is 'Information and Communication Technology Professionals'.

Step 3: The Group is now found to be 251, which is 'Software and Application develops, and Analysts'.

Step 4: Next, look in the Family for the qualification 2512 under Software Developers.

Step 5: When reviewing the job description and the skill level for the qualification, there are 8 occupations which are listed under the family. However, an exact match for the qualification 'Drone Developer (Software)' cannot be found.

Step 6: If the AB feels that the Job Description of the Qualification File doesn't match with any of the 8 occupations listed then a code till first four digits that is upto family level can be assigned which in this case is 2512, and the same maybe communicated to the Standing Committee.

Assistant Yoga Instructor - NCO 2015\ NIL

By following the steps specified in the flow chart provided, one can ensure correctness in providing the correct code for the certification 'Assistant Yoga Instructor' created by Healthcare SSC:

Step 1: It can fall under Division 2 and 3, but while going the detailed description of both the divisions, it was found that it is best suited under Division 3, under which is the 'Technicians and Associate Professionals'.

Step 2: The suitable sub-division for the qualification is now identified as 34, which is 'Legal, Social, Cultural and related Associated Professionals'.

Step 3: However, after this sub-division, no further Group can be mapped to the qualification. Therefore, no code can be assigned for the abovesaid qualification and the representatives of the Standing Committee, MoLE, or NCVET must be notified.

B. Upward Assignment

USE CASE:

Engraver- NCO 2015\ 7313.1900

The methods outlined in the flow chart above can be used to determine the appropriate NCO code for a qualification called 'Engraver' produced by HCSSC.

Step 1: The precise nomenclature is confirmed and easily located.
Step 2: The job description and skill level as defined by the qualification are now mapped, if they are deemed to be relevant to the qualification.
Step 3: The NCO Code 7313.1900 is therefore mapped and assigned to the 'Engraver' qualification.

Drone Developer (Software) – NCO 2015\ 2512

To determine the relevant NCO code for the 'Drone Developer (Software)' qualification developed by IT-ITeS SSC, complete the steps outlined in the flow chart above:

Step 1: The exact name of the qualification is sought in the concordance table, but it is not found. As a result, proceed to check the qualification using the same nomenclature as shown in the flowchart.
Step 2: When checking for same nomenclature in the table, it is discovered that 8 occupations exist, so we check the Job description and the Skill Level.
Step 3: The exact job description cannot be mapped and thus we will look for the family that the qualification may come under. It is found that the qualification can be mapped under family 2, and thus proceed to the next step.
Step 4: The exact occupation cannot be found and thus we find the relevant Group, Sub-division and Division which is found to be 2512. However, an exact match for the qualification 'Drone Developer (Software)' cannot be found.
Step 5: If the AB feels that the Job Description of the Qualification File doesn't match with any of the 8 occupations listed then a code till first four digits that is upto family level can be assigned which in this case is 2512, and the same maybe communicated to the Standing Committee.

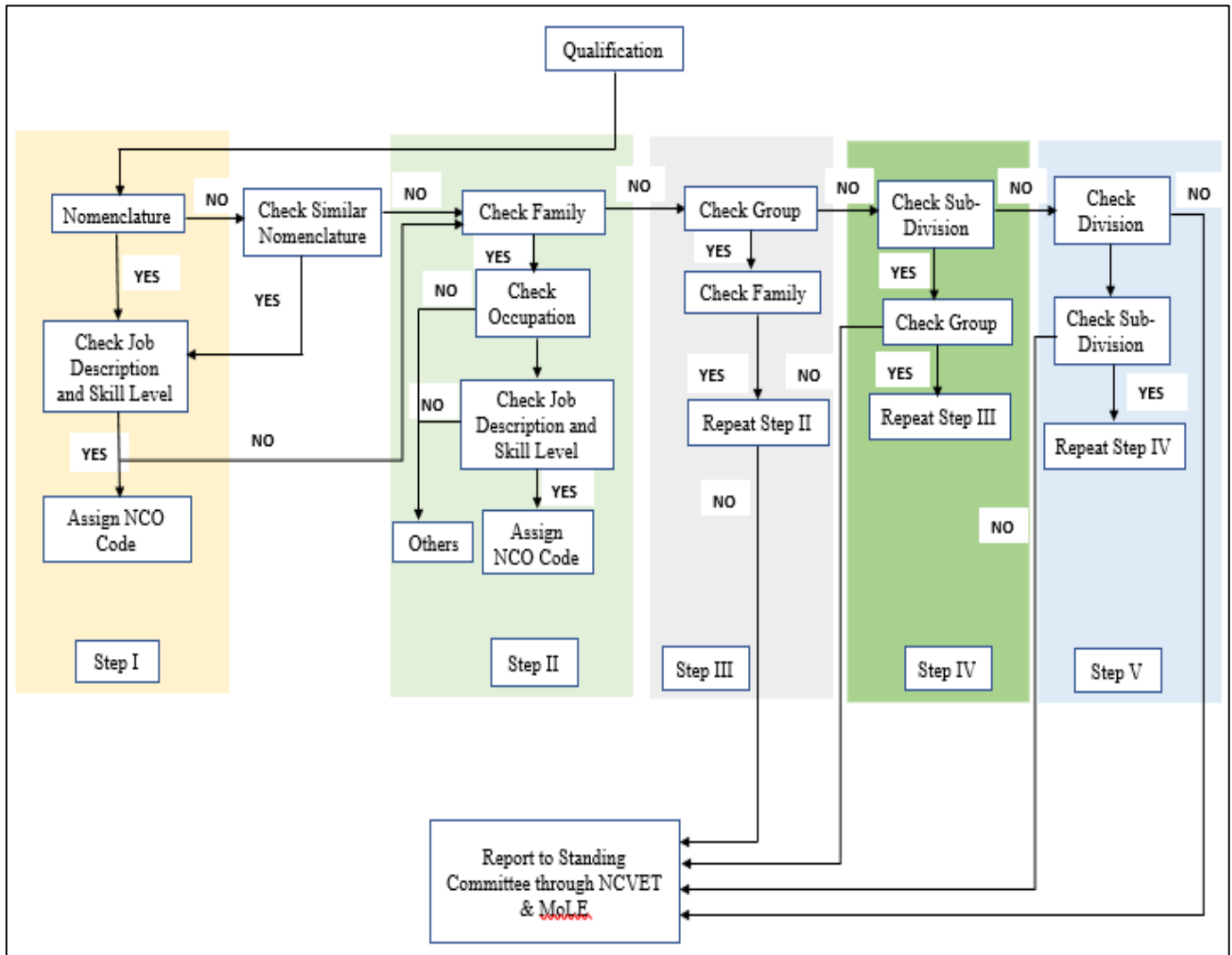**Assistant Yoga Instructor - NCO 2015\NIL**

By following the steps specified in the flow chart supplied, one can ensure correctness in providing the correct code for the certification 'Assistant Yoga Instructor' created by Healthcare SSC:

Step 1: The exact name of the qualification is sought in the concordance table, but it is not found. As a result, proceed to check the qualification using the same nomenclature as shown in the flowchart.
Step 2: When checking for similar nomenclature in the table, it is discovered that it does not exist, so we go to the next step.
Step 3: Look for the family that the qualification may come under. If no family can be discovered, proceed to the next step.
Step 4: If no applicable Group under which the qualification falls is found while searching for it, go to the next step.
Step 5: Look for the qualification in Sub-Division. If no appropriate Sub-Divisions are located, proceed to the next step.
Step 6: While going through the Division, it can be found that the qualification can fall under division 2 and 3 both. But while going the detailed description of both the divisions, it was found that it is best suited under Division 3, under which is the 'Technicians and Associate Professionals'. Therefore, no code can be assigned for the abovesaid qualification and the representatives of the Standing Committee, MoLE, or NCVET must be notified.

```
Assistant Yoga Instructor

Assistant Yoga        NO    No Similar      NO    No Suitable    NO    No Suitable   NO    No Suitable    NO    No Suitable    NO
Instructor                  Nomenclature          Family               Group                Sub-                Division
                                                                                            Division

   YES                        YES                  YES                  YES                  YES                 YES
                                                   Check                Check Family         Check Group         Check Sub-
Check Job                            NO            Occupation                                                     Division
Description                                                                                        YES
and Skill Level                                                         YES      NO           YES                       YES
                                            NO    Check Job                                   Repeat Step III
   YES               NO                            Description and      Repeat Step II                            Repeat Step IV
                                                   Skill Level
Assign NCO                                            YES               NO                          NO
Code                                 Others       Assign
                                                  NCO Code

   Step I                                Step II        Step III            Step IV              Step V


                      Report to Standing
                      Committee through NCVET
                      & MoLE
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ii. **Note:** For searching various matching families, occupations, with respect to a qualification, Ministry of Labour and Employment has developed a search engine which is available at ***https://dge.gov.in/dge/nat*** .

iii. For ease of identification and assignment of codes to qualifications, committee had also recommended to draft a Handbook containing guidelines/SoP enabling stakeholders esp. ABs to map qualifications with relevant NCO codes. This handbook must enable easy understanding of concepts & processes. Accordingly, DGE and NCVET have developed indicative guidelines/instruction on the use of NCO codes and their mapping

to qualifications/job roles for use by various ABs and stakeholders. These guidelines/instructions are attached as Annexure IX.

d. **Assigning Codes to MultiSkilling Qualifications:** Qualifications which pan across sectors/subsectors or have multiple job roles or electives may be assigned multiple NCO codes. However, these NCO codes must correspond to the job roles or occupations which the learner will be able to undertake after successful completion of a particular elective or multiskilling qualifications.

e. **Assigning Codes to Qualifications for which NCO cannot be mapped:** Qualifications for which exact occupation is not available in the current NCO mechanism, codes may be assigned under the 'OTHER' category in that family. If the Awarding Body does not find the 'OTHER' category listed under the family NCO code till family level i.e. the first 4 digits of the NCO code may be assigned. However, such cases where occupation is not available for a qualification must be reported to the NCVET, so that the same may be further reported to the Standing Committee on NCO for inclusion in the NCO list. Further, if a qualification is not traceable under any family code also then no code may be assigned and the same may be reported in the same manner. In no case a code less than that of 4 digits i.e. less than family level be assigned to any Qualification. Since, the first four digits are mapped to ISCO, a mandatory mapping of qualifications to the ISCO level is recommended.

f. **Assigning codes to emerging & futuristic qualifications:** It was observed by the committee that currently NCO 2015 does not have adequate occupations for emerging & futuristic qualifications. It is recommended that for such qualifications the same process as mentioned for 'Qualifications for which NCO cannot be mapped' above is followed. However, all such qualifications shall be reported to NCVET, so that the same may be further reported to the Standing Committee on NCO for inclusion in the NCO list. The Awarding Bodies are also advised to outline a plan of action for development and subsequent mapping of such qualifications, including Industry 4.0 & beyond qualifications, across sectors, subsectors, in accordance with the sectoral occupational maps created.

g. **Assigning Codes to Qualifications pertaining to Traditional & Heritage skills**: The Indian Knowledge System and Heritage skill sets, which include a variety of sociocultural and traditional arts, are interdisciplinary and very much relevant & applicable in the modern world. Such qualifications might not currently have a commensurate NCO code assigned at any level i.e., family or occupation level. For such qualifications, as and when these are submitted for NSQF alignment, the standing committee on NCO may be informed and then the committee may forward the same to MoLE for generation of new codes.

h. **Assigning Codes to Defense Qualifications:** Assigning NCO Codes to army qualifications represents a positive step towards harmonizing military and civilian education systems. Previously, the courses offered by the army were given separate codes by MoLE. However, with the aim of aligning army qualifications with civilian qualifications, a common NCO Code is now being assigned to both general qualifications and army qualifications that has resulted in the invalidation of the DGR Code that was previously used for army qualifications. By adopting a common NCO Code, it becomes easier to understand and compare the skills and knowledge acquired through army training with those obtained through civilian education. It allows for a seamless recognition of army qualifications within the broader framework of national qualification standards. It ensures that army personnel receive appropriate recognition for their skills and expertise, opening up new opportunities for career progression outside of the armed forces.

i. **Utilising the last two digits (Qualification/NOS Reference):** The last two digits of a qualification after decimal reflect the Qualification or NOS which have been aligned to NSQF under that occupation. It was observed by the committee that currently the understanding regarding utilisation of these digits is not adequate and hence the complete codes i.e. up till the last two digits after decimal (complete code of 8 digits) are not being assigned. Committee observed that there is significant value of these digits as once the qualifications are mapped to complete NCO codes, all qualifications will have unique codes and NCO will also reflect the number of qualifications which have been aligned to NSQF under a particular occupation. However, mapping of qualifications to complete codes shall require a complete revision of all qualifications by all awarding bodies in a coordinated manner. Given the current state of awareness about NCO in the ecosystem and the disruption this exercise (mapping of all qualifications with complete NCO codes) is likely to cause, committee recommends that the mapping of all qualifications till the family level and preferably occupation level i.e. till 4 digits and preferably 6 digits be completed on priority. Once the understanding about the NCO codes is established amongst the Awarding bodies and all qualifications are assigned codes upto atleast family and preferably occupation level, exercise to assign complete codes i.e., till 8 digits, may be undertaken.

j. **Industry Collaboration:** The ABs must consult the industries while assigning a code to a qualification since the industries are the end users and they exactly know the job requirements expected out of trained personnel. Therefore, mapping of the current job requirement in the industry with the job description mentioned in the corresponding NCO occupation must be mapped. Subsequently, mapping of the NCO Codes with job portal may also be undertaken in order to enhance the

employment opportunities for the trained workforce and bridging the gap between the skilled workforce demand and the supply.

k. **Verification of NCO Codes:** The respective ABs are responsible for identification of NCO codes to qualifications. Currently the ABs record these codes in the Q-File template and submit the same to NCVET for NSQF alignment. The primary and only check with respect to verification of NCO is undertaken at NCVET. However, the committee recommends that such allocation of codes shall also be verified by DGE, MoLE, which is an authority in this field. Therefore, it is recommended that all ABs shall provide the relevant information with respect to the allotment of NCO Codes to a qualification in a specified template (to be developed by NCVET and provided as an annexure to the Q-File template) along with submission of Q-File for NSQF alignment. For cases where no suitable NCO codes are found available or any other code related discrepancies, the information may be shared by NCVET with DGE, MoLE on a quarterly basis for for suggestions and advice. DGE, MoLE will provide inputs with respect to the reported cases. In case of any dispute, matter requiring policy directions or any other matter of similar nature, the same shall be forwarded to the Standing Committee for NCO which shall convene its meeting as and when required.

l. **DGE, MoLE as part of NSQC:** Given the importance of the NCO Codes with respect to DGT and Skill Qualifications it is imperative the veracity of the codes is established. Also, employment forms the most important part of the skill training value change. Therefore, it is also advisable that the inputs as advice of MoLE are received on important skill development decisions. Therefore, the committee recommends that DGE, MoLE may be requested to form part of NSQC as standing member. It is also recommended that along with qualifications also form part of the NSQC Meeting agenda so that the members are well informed about the proposed qualifications codes in advance.

m. **Annual monitoring and oversight:** Committee recommends that the periodic review and analysis of the NCO mapping across all NSQF aligned and approved qualifications as well as their occupational maps shall be undertaken. This shall enable to find gaps and take the necessary steps to close them in an annual periodicity. This review exercise must be undertaken by the concerned Awarding Bodies for their Qualifications and an annual report shall be submitted to the standing committee on NCO mapping.

n. **Rating and Grading of Awarding Bodies:** Committee recommends that to establish the importance of correct assignment of NCO Codes to the qualifications and to bring earnestness in the efforts of ABs towards the whole exercise of

assignment of NCO Codes to qualifications. "*The veracity of NCO Codes assigned to qualifications*", may form as a major parameter for rating and grading of ABs.

o. **Revision of NCO:**

  i. The first four digits of the NCO are mapped to ISCO which ensures international comparability and mobility. The NCO 2015 has also added occupations suitable to Indian requirements which are over & above ISCO. However, still it is felt that given the vast expanse of Indian job market both in terms of nature & number, and due to varied socio-economic conditions, rich traditional history there are a number of job roles which have not been covered by the current NCO list. Committee recommends that in addition to ISCO list, there must be provision for adding Indian classification at Group, subgroup & family level. The issue must be taken up when the NCO is being revised in the future. Committee also recommends that NCVET being the unified national regulator for VET & skills may also form part of the revision exercise as & when it takes place.

  ii. Since ISCO does not cover all occupations which exists in the Indian economy, it is recommended that efforts should be made to include these occupations at appropriate ISCO levels, i.e., division, sub-division, group and family. For this, a proposal with the list of such occupations and justifications (relevance wrt international market) may be drafted as and when the revision of ISCO takes place, India must strongly put her point of view along with such proposals forward for inclusion of these occupations in revised ISCO.

  iii. Para 4.1 of the NCO 2015 mentions 'Considering the dynamics of the labour market and addition of new QP NOS by the SSCs over a period of time, the NCO – 2015 codes would be reviewed and updated periodically. This eight-digit coding structure provides ample scope for addition of Families or Occupations to the NCO, if required, in the future.' Accordingly, till such time when the NCO 2015 is reviewed as per changes in ISCO, MoLE may enable provisions for adding occupations in the current list of the NCO for assignment of codes to Qualifications which are currently not mapped. Such addition may be done on the request of Standing Committee for NCO mapping.

p. **Capacity Building:** It was strongly felt that to create more awareness and for enablement of right NCO mapping, capacity building workshops of the stakeholders be held. As per the recommendation of the committee, three online and offline workshops have been organized for all Awarding Bodies. However, it is recommended that workshops and other awareness exercises be undertaken for all stakeholders periodically. DGE, MoLE may conduct Training of Trainer Program for NCVET officials on NCO Coding in order to enable them further to undertake awareness workshops/seminars regarding the same.

Skill Levels & NCO 2015

While designing NCO 2004 on the pattern of ISCO – 88, the skill levels as defined in the ISCED were modified to suit the Indian conditions taking particular cognizance of informal skill. In the Indian context, the skills necessary to perform the tasks and duties of a given job can be acquired not only through formal education but also through informal training and experience. Further while aligning NCO – 2004 to ISCO – 2008, it was noticed that a number of completely new Sub-Major Groups, Minor Groups, and Unit Groups have been introduced to ISCO – 2008. This led to a total revamp of Groups and Families in NCO – 2015. Many existing Families were either split or merged into different Families. The four skill levels as defined by ISCO were mapped to NCO 2015 as follows:

Skill Level	ISCO – 08 Educational Requirements	NCO – 2015 Educational Requirements
I	Primary Education	Up to 10 years of formal education and/or informal skills
II	Secondary Education	11-13 years of formal education
III	First University Degree 14-15 years of formal education	Post-Graduate University Degree
IV		More than 15 years of formal education

In keeping with the skill levels defined above to suit Indian conditions, following Divisions were classified in tune with the defined skill levels to accommodate Occupations:

NCO 2015 Divisions	Title Skill Level	Skill Level
1	Legislators, Senior Officials, and Managers	IV
2	Professionals	III
3	Associate Professionals	II
4	Clerks	II
5	Service Workers and Shop & Market Sales Workers	II
6	Skilled Agricultural and Fishery Workers	II
7	Craft and Related Trades Workers	II
8	Plant and Machine Operators and Assemblers	II
9	Elementary Occupations	I

File No. 32001/12/2023/NCVET

**National Council for Vocational Education &
TrainingMinistry of Skill Development &
Entrepreneurship Government of India**

****

Date: 14/02/2023

OFFICE MEMORANDUM

Subject: Constitution of Committee on mapping of qualifications with National Classification ofOccupation (NCO) Codes-Reg.

1. This is in reference to the Minutes of the Meeting of National Skills Qualification Committee (NSQC) held on 31st January 2023 to constitute a committee on harmonisation of NCO codes with the NSQF aligned qualifications. The Committee shall function under the chairpersonship of the Executive Member, NCVET, Dr. Vinita Aggarwal and members at the level of Directors and above from various undermentioned organisations:

2.

Serial Number	Name & Organisation	Committee Designation
b)	MSDE	Mr Nilambuj Sharan
a)	Directorate General of Employment, MoLE	Mr Amit Nirmal, DDG (Emp)
c)	UGC	Dr Manju Singh
d)	AICTE	Dr T G Sitharam
e)	DGT	Ms Trishaljit Sethi
f)	CIPET	Prof Shishir Sinha
g)	NIELET	Mr Rajneesh Asthana
h)	RSETI	Mr R R Singh
i)	JSS	Mr R. Sura
j)	CEO, Furniture & Fittings Sector Skill Council	Mr Rahul Mehta
k)	CEO, SCPwD	Mr Ravindra Singh
l)	CEO, ASDC	Mr Arindam Lahiri
m)	CEO, ASCI	Dr Satendra Arya
n)	CEO, Media & Entertainment Sector Skill Council	Mr Mohit Soni
o)	CEO, Health Sector Skill Council	Mr Ashish Jain
p)	CEO, Apparel	Dr Roopak Vasishtha
q)	Director, NCVET	Col Santosh Kumar

Terms of Reference.

1. The Terms of Reference for the Committee shall be as under: -
   a. Draft instructions/ Guidelines for reference by various ABs and stakeholders with respect to usage and mapping of NCO codes to qualifications/ job roles.
   b. Propose an action plan for the mapping of VET qualifications including in the future/emerging skills and Industry 4.0 qualifications with NCO codes across sectors/ subsectors/ job roles etc., in line with the sectoral occupational maps prepared by the respective Awarding Bodies.
   c. Review and analyse the status of NCO mapping across all the existing NSQF aligned and approved qualifications along with their occupational maps to identify the gaps for taking appropriate actions for bridging the same.
   d. Identify and list job roles that have not been assigned NCO codes:
      i. Assign existing NCO codes to the qualifications.
      ii. Identify a list of qualifications for which NCO codes are not available.
   e. Devise process for identification and rectification of the misalignment of NCO codes with theVET qualifications.
   f. Devise process for mapping/ revising of nomenclature of the occupations as per NCO/ evolved market requirements.
   g. Review and realign (if required) the NCO coding & nomenclature of occupations for high international mobility with the international nomenclature (ISCO). A capacity building planmay be created for various stakeholders.

2. The Committee may invite experts or any additional members to provide inputs as per the requirements of the Terms of Reference.

3. First physical meeting of the Committee has been scheduled under the chairmanship of ExecutiveMember, NCVET on **20/02/2023** at **11:30 AM** in the Conference room, 3rd Floor, National Council for Vocational Education and Training, Kaushal Bhawan, Pusa Road, New Delhi.

4. The details of the Committee members nominated by the concerned organisation is requested by **15/02/2023** as per the format given below:

Name of the Member	Designation	Email ID	Contact Number (Mobile)

5. This issues with the approval of the Competent Authority.

(Col Santosh Kumar)
Member Secretary & Director, NCVET
secretary.ncvet@gov.in

PS to Chairperson, NCVET
PS to Executive Member, NCVET

MINUTES OF THE 1st MEETING OF THE COMMITTEE ON MAPPING OF QUALIFICATIONS WITH NATIONAL CLASSIFICATION OF OCCUPATION (NCO) CODES HELD ON 20th FEBRUARY 2023

1.   The 1st meeting of the Committee constituted for mapping of qualifications with National Classification of Occupation (NCO) Codes was held on 20th February 2023, under the chairpersonship of the Dr. Vinita Aggarwal, Executive Member (EM), NCVET. The list of participants is enclosed at Annexure - I.

2.   At the outset, the Chairperson Committee welcomed all the members present. She also expressed her concern on the absence of those members who could not be present to contribute their inputs for such an important meeting and requested for their presence and contribution from the next meeting.

3.   The Chairperson briefed members on NCO Codes, its relevance and current issues related to its mapping to the NSQF aligned and approved qualifications. She emphasized on the need for correct assigning of NCO Codes to qualifications as it helps in establishing international comparability of qualifications enabling better employment opportunities. A wrongly assigned NCO code to any qualification may result in mismatch of the competency resulting is lowering the employability potential. She also highlighted that in the rapidly evolving skilling ecosystem, especially with newly recognised awarding bodies other than the sector skill councils (SSCs), has further necessitated bringing clarity on process of assigning NCO code and its mechanism of incorporating them in the qualifications.

4.   Further, she mentioned that owing to the changing educational/skilling ecosystem, technological advancements, present industry demands, and future qualifications many occupations have become obsolete while various new occupations have come into foray. Since the last NCO codes were revised in 2015 and it was aligned to ISCO 08, there is a considerable gap between the occupations existing vis-à-vis the current qualifications in the light of future skills qualifications coming up in the skill ecosystem. MoLE was therefore requested to consider making a general Instruction on 'how to assign NCO codes to qualifications relating to new age/ emerging occupations' in addition to changes required to be carried out in the existing qualifications.

5.   She further reiterated that committee shall focus on the following:

a)   Formulate a Standing Operating Procedure (SoP) for understanding mechanism and process to assign NCO codes to the qualifications being submitted to NSQC for NSQF alignment and approval by all the Awarding Bodies.

b)   Committee should examine existing NCO codes assigned to NSQF aligned and approved qualifications for its accuracy and map them correctly if required.

c)   Devise a mechanism to assign NCO Codes to the new and futuristic qualifications.

6.   The representatives from Ministry of Labour and Employment (MoLE) presented an overview of NCO Code, their coding structure including the types of codes used, their purpose, and usage. While the Chairperson appreciated the effort, it was felt that the concerned representatives of the MoLE looking after the mapping of the qualifications to NCO as well as ISCO need to be updated on new policies framed by the NCVET for the skill ecosystem with special reference to the NCrF, standardised NSQF norms etc. It was decided to organise a presentation on 01/02/2023 to update them on various policies.

7.   The decisions taken by the Committee, w.r.t. agenda items, in the meeting are given in the succeeding paras.

a)   To prepare draft instructions/ Guidelines/ SOP and a handbook preferably with USE cases, that can be used as reference for various ABs and stakeholders with respect to mapping of NCO codes to qualifications/ job roles being submitted for NSQF alignment of qualifications.

b)   Create/prepare a capacity building plan for various stakeholders to enable them in realignment of the NCO coding & nomenclature of occupations for international mobility with the international nomenclature (ISCO).

c)   Identify and list job roles that have not been assigned NCO codes.

d)   Device mechanism/process to assign new NCO codes to qualification in emerging sectors.

e)   Identify and rectify the NCO codes which are not mapped correctly with the existing NSQF approved and aligned qualifications. This exercise is to be done in consultation with all the SSCs by making sub committees under member CEOs of various SSCs. Accordingly, the Sub Committees formed are tabulated below:

S. No.	Name of the ABs	Lead SSC (To be led by CEO)	Other Members
1	a. Electronics Sector Skills Council of India b. IT- ITeS Sector Skill Council	**Telecom Sector Skill Council**	Mr Pradeep Thota

	c. Telecom Sector Skill Council d. Instrumentation Automation Surveillance & Communication Sector Skill Council		Mr Saket – NIELET One member (Standard Heads) from each concerned AB
2	a. Agriculture Skill Council of India (ASCI) b. Tourism and Hospitality Skill Council c. Beauty & Wellness Sector Skill Council d. Food Industry Capacity & Skill Initiative e. Domestic Workers Sector Skill Council	**Food Industry Capacity & Skill Initiative**	Ms Shikha Anand- MoLE Ms Srishti Jha- NCVET One member (Standard Heads) from each concerned AB
3	a. Media & Entertainment Skill Council b. Management & Entrepreneurship and Professional Skills Council (MEPSC) c. BFSI Sector Skill Council of India d. Sports, Physical Education Fitness & Leisure Skills Council	**Media & EntertainmentSkill Council**	Mr Shourya Sangam-NCVET Dr Sakshi Sharma- MoLE One member (Standard Heads) from each concerned AB
4	a. Apparel Made-Ups & Home Furnishing Sector Skill Council b. Textile Sector Skill Council c. Gem & Jewellery Skill Council of India d. Handicrafts and Carpet Sector Skill Council e. Leather Sector Skill Council	**Handicrafts andCarpet Sector Skill Council**	Ms Ojasvi Goyal- NCVET Mr Biswajit Mohmd- MoLE One member (Standard Heads) from each concerned AB

5	a. Infrastructure Equipment Skill Council b. Capital Goods Skill Council c. Indian Iron and Steel Sector Skill Council d. Skill Council for Mining Sector	**Capital GoodsSkill Council**	Mr Milind Kumar Sahu- NCVET Mr J Bosco- CIPET One member (Standard Heads) from each concerned AB
6	a. Construction Skill Development Council of India b. Water Management and Plumbing Skill Council c. Paints and Coatings Skill Council d. Furniture and Fittings Skill Council	**Furniture and Fittings Skill Council**	Mohmd Amir Wani- NCVET One member (Standard Heads) from each concerned AB
7	a. Life Sciences Sector Skill Council Development Council b. Healthcare Sector Skill Council c. Skill Council for Green Jobs d. Skill Council for Persons with Disability	**Healthcare Sector Skill Council**	Ms Sarika Dixit Mr Saket Saurabh- NILET One member (Standard Heads) from each concerned AB
8	a. Hydrocarbon Sector Skill Council b. Aerospace and Aviation Sector Skill Council c. Automotive Skills Development Council d. Logistics Sector Skill Council e. Rubber, Chemical & petrochemical Skill Development Council	**Automotive Skills Developmen tCouncil**	Mr Lav Bhardwaj- NCVET One member (Standard Heads) from each concerned AB

9.	All DGT Skill Qualifications	**Mr Sanjay Kumar- DGT** **Mr Snehashish- DGT**	Ms Sikha Anand- MoLE Mr Harish Dahiya- NCVET NSDC

The Sub Committees formed above are requested to submit their report, duly vetted by the MoLE, to the Chairperson by 10th March 2023 positively.

8.   The members from the Awarding Bodies/SSCs were advised by the Chair to review and analyse the status of NCO mapping across all the existing NSQF aligned and approved qualifications in accordance with their occupational maps to identify the gaps for taking appropriate actions for bridging the same.

9.   The next meeting has been scheduled on 17th March 2023 at 11:30 AM at NCVET. The Sub Committees may convene the meeting as convenient in the interim period and present the report to the Chairperson in the next meeting.

The meeting concluded with a vote of thanks to the Chair.

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List of Participants from NCVET:

1. Dr Vinita Aggarwal, Executive Member, NCVET
2. Col. Santosh Kumar, Director, NCVET
3. Lt. Col Gunjan Chowdhary, Director, NCVET
4. Ms. Sarika Dixit, Consultant, NCVET
5. Mr Ajit Jaiswal, Consultant, NCVET
6. Mr. Parkishit Yadav, Consultant, NCVET
7. Ms. Ratna Priya Kanchan, Consultant, NCVET

Representatives from:

1. Ms Archana Mayaram, Economic Advisor, MSDE
2. Sri Shakeel Ahmad, JS, UGC
3. Mr Sanjay Kumar, Director, DGT
4. Dr. Shikha Anand, Dir (Emp), MoLE
5. Rahul Mehta, CEO, Furniture & Fittings Sector Skill Council
6. Ravindra Singh, CEO, SCPwD
7. Dr. Satender Arya, CEO, ASCI
8. Ashish Jain, CEO, Health Sector Skill Council
9. Dr. Sakshi Sharma, Psychologist, DGE
10. Shiv Kumar, JTA, DGT
11. J. BOSCO, Manager (Skill Development), CIPET
12. Saket Saurabh, Deputy Director, NIELET
13. Biswajit Mohmd., ADE, DGE
14. Snehashish Bandyopadhyay, Assistant Director, DGT
15. Amit Singh, Jt. Director, AM, HSSC
16. Sudhir Kumar Jain, General Manager, TSSC
17. Shekhar Suman, Consultant, JSS Division, MSDE
18. Viraat Bhama, Consultant, JSS Division, MSDE
19. Monalisa Baruah, Manager – Standards & Learning, RCPSDC

MINUTES OF THE 2nd MEETING OF THE 'COMMITTEE ON MAPPING OF QUALIFICATIONS WITH NATIONAL CLASSIFICATION OF OCCUPATION (NCO) CODES' HELD ON 21st MARCH 2023

1. The 2nd meeting of the Committee constituted for "**mapping of qualifications with National Classification of Occupation (NCO) Codes**" was held on 21st March 2023, under the chairpersonship of Dr. Vinita Aggarwal, Executive Member (EM), NCVET. The list of participants is enclosed at **Annexure -I.**

2. At the outset, the Chairperson welcomed all the members who were present and expressed her concern that despite having emphasised the importance of the Committee some of the members were yet found not available for the meeting. She reiterated for the active participation and contribution from all members starting with the forthcoming meeting.

3. The Chairperson, Committee was given a detailed account of the action points decided during the first meeting. The details are given below:

   a) Representatives of the Ministry of Labour and Employment (MoLE) were given a detailed presentation on various policy initiatives of NCVET like NCrF, Standardised NSQF Norms, Level Descriptors etc. on 14th March 2023 by the NCVET team as was discussed in the first Meeting.

   b) The 09 sub committees headed by CEOs of the nominated lead SSCs had conducted the scrutiny of the NCO codes of all NSQF aligned & approved qualifications so far and presented before the Committee during the second meeting.

   c) With reference to decision taken in the first meeting regarding preparation of draft instructions/Guidelines/SOP and a handbook on NCO mapping to be used as reference by various ABs and stakeholders along with a capacity building plan for ease of assigning NCO codes to qualification for NSQF alignment, the MoLE representative informed that although a comprehensive guideline has already been published, notwithstanding, if the stakeholders have specific points wherein they are facing difficulties in aligning the qualification to NCO codes, they may be communicated to the MoLE so that a simplified version of Guidelines for mapping the qualifications to NCO code be made and brought before the Committee for further suggestion and subsequent implementation.

   d) The chairman appreciated the suggestion and advised that NCVET may collect and collate all the concerns/difficulties being faced by the awarding bodies regarding NCO mapping and share the same with MoLE by 27th March 2023 and suggested the representative of MoLE to prepare a

simplified version by culling out the relevant portion from the main document addressing all the concerns shared by the stakeholders.

4. MoLE representative assured that the Guidelines/ SOP shall be prepared shortly. MoLE also requested to share the details of the recognised Awarding Bodies so that they can commence conduct of Workshop/s for capacity building of all the stakeholders soonest possible.

5. The Chairperson directed NCVET representative to share the consolidated inputs received from Awarding Bodies along with proposed batches of ABs with the MoLE so that the capacity building workshop can commence forthwith.

6. The Lead CEOs of various ABs/SSCs groups constituted in the first meeting to identify and rectify the NCO codes which were not mapped correctly with the existing NSQF aligned & approved qualifications presented a consolidated report pertaining to their groups before the Committee members. The Committee took a note of the same and made the following observations:

   a) The mapping of qualifications to NCO code was not completed by some of the sub committees in all respects.
   b) The data was to be authenticated and verified by the sub committee members amongst themselves under the guidance of the nominated CEOs of the lead SSCs, which did not appear to have been done.
   c) The details of qualifications along with the proposed NCO Codes was missing in some of the ABs/ SSCs.

7. Some of the representatives of ABs raised following queries:
   a) To define Process for NCO mapping of multiskilling/ cross sectoral qualifications
   b) Non availability of codes for Future skill/industry 4.0 qualifications
   c) Review of mapping of qualifications in textile sectors currently reflected in different Group/family.
   d) Separate provision may be considered for Textile Mill fitter occupation.

8. The Chairperson requested the nominated Lead CEOs to re-examine the complete report in their respective groups and submit the same, duly vetted by the CEOs of the respective ABs/ SSCs, by 30th March 2023 positively.

9. The action points arising from the meeting are summarised below:

Ser No	Decision Taken	Action By
a)	To prepare a draft instructions/ Guidelines/ SOP and a handbook on NCO mapping to be used as reference by various ABs and stakeholders.	MoLE

b)	Prepare the list of different batches of recognized ABs and share the list with MoLE for capacity building workshop	NCVET
c)	A workshop for a capacity building plan of various stakeholders for enabling better alignment and assignment of NCO codes.	MoLE
d)	To indicate a list of areas to MoLE, around which capacity building workshops shall be designed.	NCVET
e)	Re-examine the NCO codes and submit consolidated Report by 30th March 2023	All Lead CEOs

10. The next meeting has been scheduled on **07th April 2023** at 11:30 AM at NCVET. The meeting shall be held in physical mode. The Sub Committees may convene their meetings as convenient in the interim period and submit to the NCVET by 30th March and subsequently present the report before the Committee in the next meeting.

The meeting concluded with a vote of thanks to the Chair.

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List of Participants

1. Dr Vinita Aggarwal, Executive Member
2. Ms Archana Mayaram, Economic Advisor, MSDE
3. Sri Shakeel Ahmad, JS, UGC
4. Lt. Cdr. Akhil Sharma, AD, SDC, AICTE
5. Col. Santosh Kumar, Director
6. Lt. Col Gunjan Chowdhary, Director
7. Sh. Sushil Aggarwal, Director
8. Sh. Purnendu Kant, Director
9. Sh. Pradeep thota, Deputy Director
10. Sh. Milan kr. Sahu, Deputy Director
11. Ms. Sarika Dixit, Consultant
12. Mr. Shourya Sangam, Consultant
13. Mr. Lav Bhardwaj, Consultant
14. Mr. Ajit Jaiswal, Consultant
15. Mr. Amir waheed, Consultant
16. Ms. Ojasvi Goyal, Consultant
17. Ms. Sheetal, Consultant
18. Mr. Parkishit Yadav, Young Professional
19. Ms. Srishti Jha, Young Professional
20. Ms. Ratna Priya Kanchan, Young Professional
21. Ms. Priya Mathur, Joint Director
22. Ms. Neeru Wadhwa, AD
23. Mr. Neelabh, DGM, NSDC
24. Ms. Deepti Saxena, VP, NSDC
25. Mr. Akhil A Kumar, Technical Advisor, CGSSC
26. Mr. Rahul Mehta, CEO, Furniture & Fittings Sector Skill Council
27. Mr. Sudhir Kumar Jain, General Manager, TSSC
28. Ms. Shalini Singh, CEO, CGSC
29. Mr. Krishan Kumar, CEO, HCSSC
30. Col Anil Pokhriyal, CEO, MEPSC
31. Sunil Marwah, CEO, FICSI
32. Mr. Mohit Soni, CEO, MESC
33. Mr. Ashish Jain, CEO, Health Sector Skill Council
34. Dr. Sakshi Sharma, Psychologist, DGE
35. Mr. Snehashish Bandyopadhyay, Assistant Director, DGT
36. Dr. Megha Aggarwal, Standards, HSSC
37. Ms. Priya Sharma, Deputy manager, CGSC
38. Dr Niharika Nigam, SCPwD
39. Ms. Priya, LSC
40. Standards - Media SSC
1. BWSSC
2. Sadhanandam, Leather SSC
3. Shivi Chaudhary, MEPSC
4. Standards Team - Lifesciences SSC

5. Priyanka Prakash
6. Arjun Singh, Handicrafts SSC
7. C B Sinha
8. Dr. Sunita Badhwar
9. Shubhangi Sethi
10. Vishakha, ESSCI
11. Maahi
12. Apoorv, SCMS
13. Snehasis, NASSCOM
14. Gunjan Aneja, WMPSC
15. Indira
16. Neha Sharma Dave, BFSI SSC
17. Manager - Standards & QA Hydrocarbon SSC
18. Soumya Ranjan, COO, BFSI SSC
19. Ankur, FICSI
20. Shivi Chaudhary MEPSC
21. Standards-IASC
22. Shubham Agrawal
23. Vigneshraja - Textile SSC
24. Shilpa Adlakha, RCPSDC
25. CIPET HO Chennai
26. Dr Swapna Mishra, Textile SSC
27. Gaurav Birla - MESC
28. Akash
29. Dr. Vijay Yadav, Textile SSC
30. Shakeel Ahmad
31. Akash
32. Sushim Banerjee
33. Jan Shikshan Sansthan PMU
34. Varun Chander
35. Soumya Ranjan, COO, BFSI SSC
36. Subbaiyan - IESC
37. WMPSC
38. Sushim Banerjee
39. Jan Shikshan Sansthan PMU

MINUTES OF THE 3rd MEETING OF THE 'COMMITTEE ON MAPPING OF QUALIFICATIONS WITH NATIONAL CLASSIFICATION OF OCCUPATION (NCO) CODES' HELD ON 11th APRIL 2023

1. The 3rd meeting of the Committee constituted for "**Mapping of Qualifications with National Classification of Occupation (NCO) Codes"** was held on 11th April 2023, under the chairpersonship of Dr. Vinita Aggarwal, Executive Member (EM), NCVET. The list of participants is enclosed at **Annexure - I.**

2. The Chairperson, Committee was given a detailed account of the action points decided during the second meeting. The details are given below:

   a) The 09 sub committees headed by CEOs of the nominated lead SSCs had conducted the scrutiny of the NCO codes of all NSQF aligned & approved qualifications and presented their findings to the Committee during the second meeting.

   b) With reference to decision taken in the second meeting regarding preparation of draft instructions/Guidelines/SOP and a handbook on NCO mapping to be used as reference by various ABs and stakeholders, the draft guidelines were prepared and brought before the committee by MoLE. It was further advised to incorporate the use cases in the guidelines for the ease of assigning NCO codes to qualification for NSQF alignment.

   c) It was also decided to organize capacity-building workshops for all participants, including NCVET officials and ABs. The four different groups were created, and details for the workshops were shared.

3. The Lead CEOs of various ABs/SSCs groups constituted in the first meeting to identify and rectify the NCO codes which were not mapped correctly with the existing NSQF aligned & approved qualifications presented a consolidated report pertaining to their groups which was duly vetted by the lead CEOs before the Committee members. So far, 226 qualifications have been incorrectly mapped to NCO codes, and 373 qualifications have not been assigned NCO codes.

4. It was further advised by the chair to share a list of qualifications that do not have NCO Codes, the qualifications that are wrongly mapped and the qualifications that are placed in others category with the NCVET and MoLE.

5. The future qualifications will be relooked once the capacity building workshop is conducted and in case of any discrepancies, the list of qualifications shall be shared with the representatives of MoLE.

6. It was suggested by MoLE, that the mapping of qualifications shall be done for the first four digits of the coding structure to find the best possible match of the category and family. Later, the committee was informed by MoLE that the NCO document does not map the requirements for the armed forces qualifications.

7. Further, it was brought to the notice of the committee that the qualification named Automotive two-wheeler technician and Automotive three-wheeler technician has no ISCO – 08 code and hence was mapped as per the Indian mapping rule.

8. Looking at the international employment, we can have qualifications in the broader aspect/ category which will enable the employment opportunity at the sub-sector category.

9. The action points arising from the meeting are summarised below:
    a) The qualifications for yoga and neurotherapy need to be considered as a separate category.
    b) The qualifications with no NCO codes will be placed in a broad category.
    c) Qualifications with Electives having multiple NCO codes, need to be replaced with single code.
    d) New categories can be added for the qualifications that cannot be easily mapped with the existing categories.
    e) The emerging, IOT and AI qualifications, need to be categorised separately.

The meeting concluded with a vote of thanks to the Chair.

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List of Participants

1. Dr Vinita Aggarwal, Executive Member
2. Col. Santosh Kumar, Director
3. Sh. Sushil Aggarwal, Director
4. Sh. Pradeep Thota, Deputy Director
5. Mr. Shourya Sangam, Consultant
6. Mr. Ajit Jaiswal, Consultant
7. Mr. Amir waheed, Consultant
8. Ms. Sheetal Bhandari, Consultant, NCVET
9. Ms. Vandana Purohit, Consultant, NCVET
10. Mr. Parkishit Yadav, Young Professional
11. Ms. Srishti Jha, Young Professional
12. Ms. Ratna Priya Kanchan, Young Professional
13. Ms. Pragya Sharma, Young Professional
14. Mr. Baiju Balan V, Young Professional
15. Ms. Priya Mathur, Joint Director
16. Mr. Neelabh, DGM, NSDC
17. Ms. Deepti Saxena, VP, NSDC
18. Ms. Gurpreet Kaur, Manager – Strategy NSDC, NSDC
19. Sarvesh Pratap Mall, Sy Manager Tech, Skill Council for Green Jobs
20. Gurpreet Kaur, Executive Standards, Telecom Sector Skill Council
21. Sudhir Kumar Jain, General Manager, Telecom Sector Skill Council
22. Shubhangi Sethi, Executive, Telecom Sector Skill Council
23. Arun Kumar Ujjwal, Vice President Operation & QC, ESSCI
24. Vishakha Chaudhary, Assistant Manager Technical, ESSCI
25. Mayank Bansal, Manager (Technical), ESSCI
26. CB Sinha, Vice President (Standard & QA) IASC – SSC, IASCC SSC
27. Dr Sakshi Sharma, Psychologist, DGE
28. Biswajit Mohanty, ADE, DGE
29. Ashok Kumar Jaiswal, JD, MSDE
30. Brig Yogesh Kapoor, DG, WMPSC
31. Gunjan Aneja, AGM, WMPSC
32. Priya Mathur, JDQS, AMHSSC
33. Dr Megha Aggarwal, Sr Manager, Health SSC
34. Snehasish Bandyopadhyay, Asst Director, DGT, MSDE
35. Shalini Singh, CEO, CGSSC
36. Akhil A Kumar, Technical Advisor, CGSSC
37. Shruti Choudhary, Leads Standard, NASSCOM
38. Garmia Jhamb, Assistant Manager, ASDC
39. Arindam Lahiri, CEO, ASDC
40. Ankur, Sr Manager, FICSI
41. Sunil K Marwah, CEO, FICSI
42. Dr Swapna Mishra, CEO, Textile SSC
43. Goutam Bhattacharya
44. Standards (LSSSDC)

45. Dr. Sunita Badhwar
46. BWSSC
47. Monica Bahl
48. Usaman Khan DWSSC
49. Rajan Bahadur
50. Ashish Anand (SCPwD)
51. Shivi_MEPSC
52. Priya LSC
53. Gaurav Birla - MESC
54. SCPwD Dr Niharika Nigam
55. Subbaiyan - IESC
56. CIPET HO Chennai
57. JSS
58. Nandhini LSC
59. Rahul Mehta, CEO, Furnitures and Fittings
60. Dr Swapna Mishra (Textile SSC)
61. Director General NAR
62. Hakim Mamka
63. Vigneshraja - Textile SSC
64. Cheshta - CSDCI
65. Priyanka Prakash
66. Apoorv-SCMS
67. Saket Saurabh
68. Priyanka Pandey
69. Pratibha -NASSCOM
70. Pratibha -IT-ITeS
71. vijay kumar
72. Arjun Singh Handicrafts SSC
73. CIPET Head Office Chennai
74. Shefali Parab
75. JAGDISH ACHARYA
76. Shilpa Adlakha (RCPSDC)
77. Shubham Agrawal
78. Anjali Manhas - Standards & QA - HSSC
79. Leather Sector Skill Council
80. Anand Maru (Hydrocarbon SSC)
81. Reena Yadav
82. Dr Satender Singh Arya
83. Shefali Parab
84. Aman-HCSSC
85. Ravindra Singh
86. Akash Srivastava (IISSSC)
87. Anjali Manhas - Standards & QA - HSSC
88. Ashish Jain
89. Shefali Parab

90. Bharti- FFSC
91. Ashish Jain
92. Snehasis (NASSCOM)
93. SCPwD Dr Niharika Nigam
94. Goutam Bhattacharya
95. Director General
96. FICSI
97. Krishan Kumar (CEO- Handicrafts & Carpet SSC)
98. Anand Maru (Hydrocarbon SSC)
99. Vigneshraja - Textile SSC
100. Anjali Manhas - Standards & QA - HSSC
101. Sushim Banerjee
102. Subbaiyan - IESC
103. Anjali Manhas (Standards &QA) - HSSC
104. Leather Sector Skill Council
105. Cheshta - CSDCI
106. Anjali Manhas (Standards &QA) - HSSC
107. Shefali Parab
108. Vijay kumar
109. Priya LSC
110. Shilpa Adlakha (RCPSDC)
111. Gaurav Birla - MESC
112. Anand Maru (Hydrocarbon SSC)

MINUTES OF THE 4ᵗʰ MEETING OF THE 'COMMITTEE ON MAPPING OF QUALIFICATIONS WITH NATIONAL CLASSIFICATION OF OCCUPATION (NCO) CODES' HELD ON 25ᵗʰ JULY 2023

1. The 4ᵗʰ meeting of the Committee constituted for "**Mapping of Qualifications with National Classification of Occupation (NCO) Codes**" was held on 25ᵗʰ July 2023, under the chairpersonship of Dr. Vinita Aggarwal, Executive Member (EM), NCVET. The list of participants is enclosed at **Annexure - I.**

2. It was decided during the meeting that with the aim of aligning army qualifications with civilian qualifications, a common NCO Code is shall be assigned to both general qualifications and army qualifications that has resulted in the invalidation of the DGR Code that was previously used for army qualifications.

3. The draft committee report was made and circulated to the Committee members for their feedbacks in accordance with the aforementioned action points and covering all the challenging areas. During the meeting, some of the points regarding the verification of the validity of the codes assigned to the qualifications and the assignment of codes to defence qualifications, industry collaboration, and the rating and grading system of awarding bodies were highlighted. The report's recommendations had been discussed, and added to the report.

4. A detailed report comprising of the user handbook was prepared and presented before the committee for final approval.

The meeting concluded with a vote of thanks to the Chair.

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List of Participants

1. Dr Vinita Aggarwal, Executive Member
2. Col. Santosh Kumar, Director
3. Mr. Shourya Sangam, Consultant
4. Ms. Ratna Priya Kanchan, Young Professional
5. Sanjay Kumar, Director, DGT, MSDE
6. S. Bandyopadhyay, Asst. Director, DGT, MSDE
7. Dr. Neetu Bhagat, Dy. Director, AICTE, MOE
8. Biswajit Mohanty, Asst. Director, DGE, MOLE
9. Dr. Sakshi Sharma, Psychologist, DGE, MOLE
10. Dr. Megha Aggarwal, AGM, HSSC
11. Ashish Jain, CEO, HSSC
12. Rahul Mehta, CEO, FFSC
13. Shubham Aggarwal, Head-Standards, FFSC
14. Srikanth Pampana, Dy. Manager-Projects & MIS, ASCI
15. Amit Singh, Jt. Director Q&S, AMHSSC
16. Gaurav Birla, Head-Standards QA, MESC
17. Manish Mishra, Asst. Director, MSDE
18. Vikrant Chaule, SANKALP, MSDE
19. Sunita Verma, Executive, ScPwD
20. Col. Anil Kr. Pokhriyal, CEO, MEPSC
21. Shivi Chaudhary, Manager-Standards, MEPSC
22. Deepti Saxena, VP, NSDC
23. Saket Saurabh, Dy. Director, NIELIT

Report on Mapping of NSQF aligned qualifications with NCO Codes

Sl. No.	Awarding Bodies	Total number of qualifications	No. of job roles that have not been assigned NCO codes	Qualification with no NCO code where NCO code has been proposed	Qualifications for which NCO codes are wrongly mapped
1	DGT	463	0	11	0
2	ASCI	170	42	29	0
3	ASDC	116	27	0	0
4	MESC	100	0	0	0
5	IT-ITES	95	39	39	34
6	Handicraft	93	18	9	27
7	ESSCI	88	54	50	20
8	THSC	77	10	8	16
9	Textile	71	0	10	10
10	RCPSDC	63	48	29	8
11	FICSI	61	27	24	1
12	HSSC	56	13	13	0
13	SCGJ	53	1	1	0
14	NIELIT	52	0	0	0
15	AASSC	51	25	24	16
16	CSDC	57	0	2	0
17	TSSC	49	8	8	10
18	GJSSC	42	0	1	1
19	MEPSC	39	4	0	0
20	CGSC	37	1	1	0
21	Apparel	36	5	0	1
22	LSSC	33	0	0	23
23	Iron	31	13	13	0
24	B&WSSC	30	8	0	0
25	Infra	28	0	0	0
26	PCSC	28	0	10	0
27	LSSSDC	26	1	1	0
28	Mining	26	0	0	0
29	HSSC	21	3	3	0
30	IASC-SSC	14	0	0	0
31	DWSSC	13	0	0	5
32	BFSI	13	0	7	0

33	FFSC	12	0	0	0
34	Leather	11	0	0	10
35	SCPwD	8	1	1	0
36	WMPSC	6	0	0	0
37	Sports	28	0	0	13
38	Power SSC	28	0	3	0
39	RASCI	19	0	0	2
40	CIPET	37	0	20	0
41	ASAP, Kerala	9	0	0	5
42	KSDC	23	0	0	0
43	WBSCTVESD	9	1	8	0
44	HARTRON	17	0	0	8
45	JSS	15	0	0	0

	TOTAL	2157	256	236	156

Details of capacity-building workshops and the batches

Group Name	Date	Time	Venue
Group 1	28/04/2023	11:30 AM – 01:00 PM	NICS, Noida
Group 2	04/05/2023	02:30 PM – 04:00 PM	
Group 3	11/05/2023	11:30 AM – 01:00 PM	Video conferencing

Group 1

1. Electronics Sector Skills Council of India
2. Agriculture Skill Council of India (ASCI)
3. Media & Entertainment Skill Council
4. Indian Iron and Steel Sector Skill Council
5. Infrastructure Equipment Skill Council
6. Construction Skill Development Council of India
7. Life Sciences Sector Skill Council Development Council
8. Tourism and Hospitality Skill Council
9. Management & Entrepreneurship and Professional Skills Council (MEPSC)
10. Capital Goods Skill Council
11. Water Management and Plumbing Skill Council
12. Healthcare Sector Skill Council
13. Aerospace and Aviation Sector Skill Council
14. Beauty & Wellness Sector Skill Council
15. BFSI Sector Skill Council of India
16. Telecom Sector Skill Council
17. Instrumentation Automation Surveillance & Communication Sector Skill Council
18. Skill Council for Persons with Disability
19. Logistics Sector Skill Council
20. Mr. Purnendu Kant
21. Mr Shourya Sangam
23. Mr Parikshit Yadav
24. Ms Ratna Priya Kanchan

Group 2

1. Retailers Association's Skill Council of India (RASCI)
2. Gem & Jewellery Skill Council of India
3. Apparel Made-Ups & Home Furnishing Sector Skill Council
4. Leather Sector Skill Council
5. Paints and Coatings Skill Council
6. Skill Council for Green Jobs
7. Automotive Skills Development Council
8. Power Sector Skill Council
9. National Association of Software and Service Companies (NASSCOM)

10. Food Industry Capacity & Skill Initiative
11. Sports, Physical Education Fitness & Leisure Skills Council
12. Handicrafts and Carpet Sector Skill Council
13. Skill Council for Mining Sector
14. Furniture and Fittings Skill Council
15. Domestic Workers Sector Skill Council
16. Rubber, Chemical & petrochemical Skill Development Council
17. Hydrocarbon Sector Skill Council
18. Textile Sector Skill Council
19. Col Santosh Kumar
20. Lt. Col. Gunjan Chowdhary
21. Mr Harish Dahiya
22. Ms Sarika Dixit
23. Mr Amir Waheed
24. Mr Balaji Baskaran
25. Mr Abhinav Mishra
26. Mr Amresh Kumar
27. Ms Srishti Jha
28. Mr Baiju Balan

Group 3
1. DGT
2. Additional Skill Acquisition Programme, Kerala (ASAP)
3. National Institute of Electronics and Information Technology, Delhi
4. National Film Development Corporation, Mumbai (NFDC)
5. Karnatka Skill Development Cooperation
6. Haryana State Electronics Development Cooperation
7. SCTEVT, Odisha
8. Jan Shikshan Sansthan (JSS)
9. Retailers Association's Skill Council of India (RASCI)
10. National Academy of RUDSETI
11. Gem & Jewellery Skill Council of India
12. CIPET, Chennai
13. CDAC
14. WBSCTVE&SD
15. Infrastructure Equipment Skill Council
16. Construction Skill Development Council of India
17. Aerospace and Aviation Sector Skill Council
18. BFSI Sector Skill Council of India
19. Instrumentation Automation Surveillance & Communication Sector Skill Council
20. Logistics Sector Skill Council
21. Leather Sector Skill Council
22. Skill Council for Mining Sector
23. Furniture and Fittings Skill Council
24. Rubber, Chemical & petrochemical Skill Development Council

25. Textile Sector Skill Council
26. Paints and Coatings Skill Council
27. Power Sector Skill Council
28. Mr. Sushil Agarwal
29. Ms Sarika Dixit
30. Mr Amit Sharma
31. Mr Ajit Jaiswal
32. Ms. Pragya Sharma

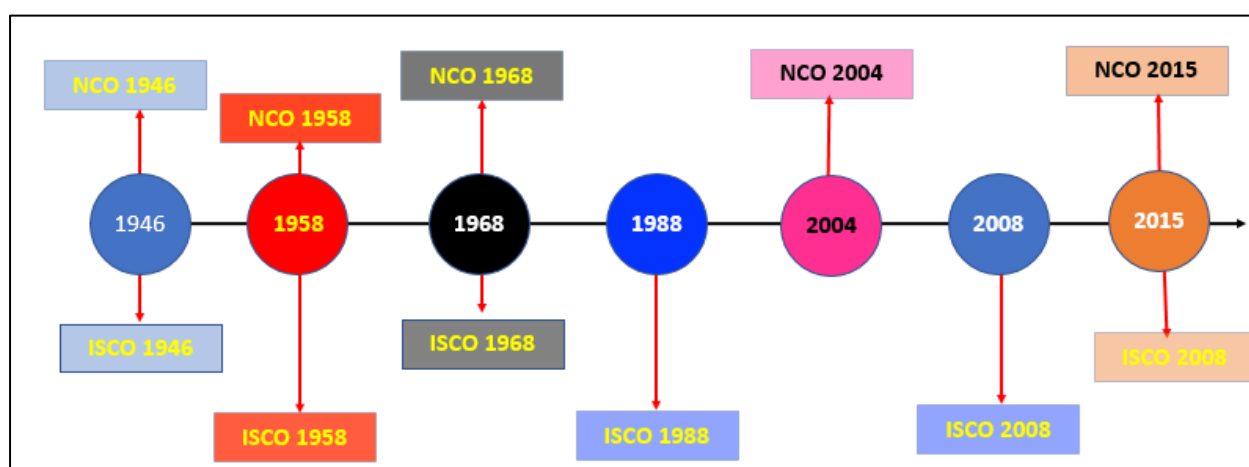## USER HANDBOOK ON MAPPING OF QUALIFICATIONS WITH NCO CODES

1. **Introduction**

   The National Classification of Occupations (NCO) is a stratification for categorizing occupations that aligns with the International Standard Classification of Occupations (ISCO-08). NCO has been a robust system of classification of occupations in the country which predates NSQF and is internationally harmonized for the existing and emerging occupations and job roles. As a standard practice of NSQF alignment, all Qualifications are required to be mapped to an NCO code. The need for internationally comparable occupational data has grown as a result of the globalization of the labour market. The NCO is also reflected in the Qualification File Template, which aids in aligning training programmes to the existing occupations in the industry, which further empowers NCVET recognized Awarding Bodies, learners, academia, industry, and policy makers with greater insight to make well-informed decisions.

   Inspite of having a detailed guideline on how to map the qualification with the NCO Code, there are still a number of gaps while assigning NCO Codes and thus the user handbook on mapping of qualifications is being developed that will enable the skill ecosystem to provide the right qualification with the right occupations so as to fit in the correct occupational map and progression pathways.

   However, the detailed guideline for the National Classification of Occupations-2015 (Code Structure) can be referred at the link:

   https://www.ncs.gov.in/Documents/National%20Classification%20of%20Occupations%20_Vol%20I-%202015.pdf

2. **Historical background of the Evolution Of ISCO/ NCO Codes**

3. NCO – 2015

NCO – 2015 is an 8-digit coding structure which was mapped and aligned to ISCO – 08 with an addition of 2 digits. There is one to one correspondence between ISCO – 08 and the NCO – 2015 with the:

a. First digit representing the Division (Major Group)
b. Second digit representing Sub-Division (Sub-Major Group)
c. Third digit representing the Group (Minor Group)
d. Fourth digit representing the Family (Unit Group)

A decimal is introduced after the first four digits in order to create a distinction between the Families and individual Occupations.

The coding structure of NCO – 2015 is as follows:

Before Decimal:

i. The first digit will represent the Division (Major Group in ISCO)
ii. The first two digits will represent the Sub-Division (Sub-Major Group in ISCO)
iii. The first three digits will represent the Group (Minor Group in ISCO)
iv. The first four digits will represent the Family (Unit Group in ISCO)

A decimal is introduced after the first four digits in order to create a distinction between the Families and individual Occupations.

After Decimal:

i. The first two digits will represent the different occupations that can be combined under the given Family.
ii. The last two digits shall represent the availability of a QP NOS for the job role.

For example: 8153.0111 Code for Sewing Machine Operator.
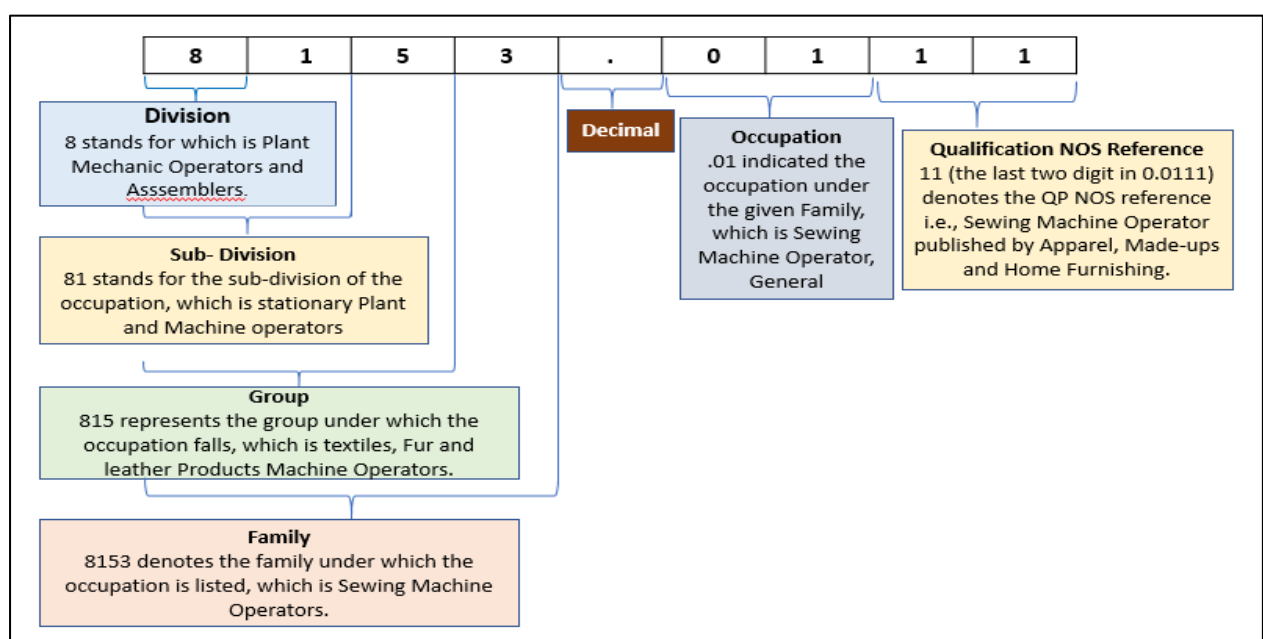
The value of the last two digits would depend on two scenarios:

> 1.1.3 *If QP NOS is available, then the value of the last 2 digits after the decimal will be between1-99 (arranged sequentially).*
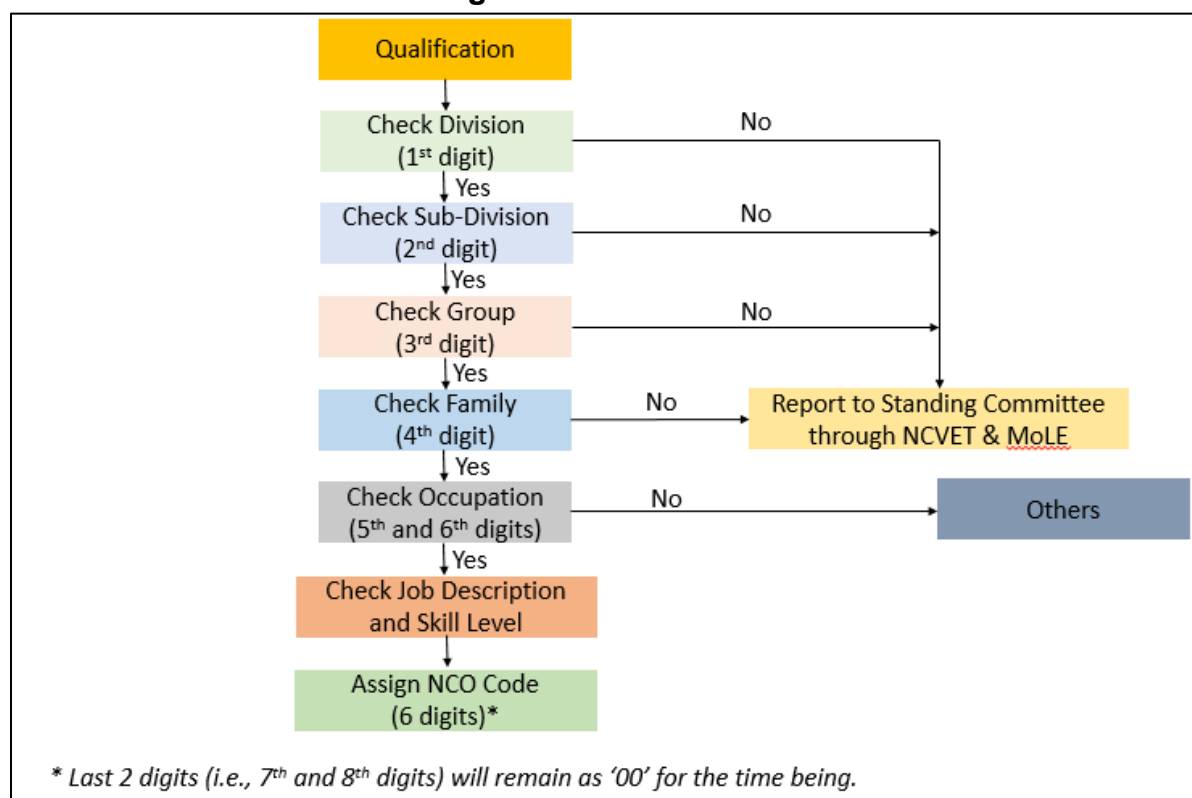>
> 1.1.4 *If QP NOS is unavailable, then the value of the last two digits after the decimal will remain 00.*

4. Process of Assigning Codes to Qualification

Assignment of relevant codes to qualifications requires understanding of the NCO concepts and classification. ABs generally find it difficult to identify the relevant occupations under which the qualification shall lie. To make assignment of codes easy and swift:

i. Two process flow charts have been designed. The flow charts with use cases are explained as follows:

A. Downward Assignment

* Last 2 digits (i.e., 7th and 8th digits) will remain as '00' for the time being.

Engraver- NCO 2015\ 7313.1900

The methods outlined in the flow chart above can be used to determine the appropriate NCO code for a qualification called 'Engraver' produced by HCSSC.

Step 1: Determine the relevant Division, i.e., 7, under which the qualification falls, is the 'craft and related trades workers category'.

Step 2: The suitable sub-division for the qualification is now identified as 73, which is handicraft and printing workers.
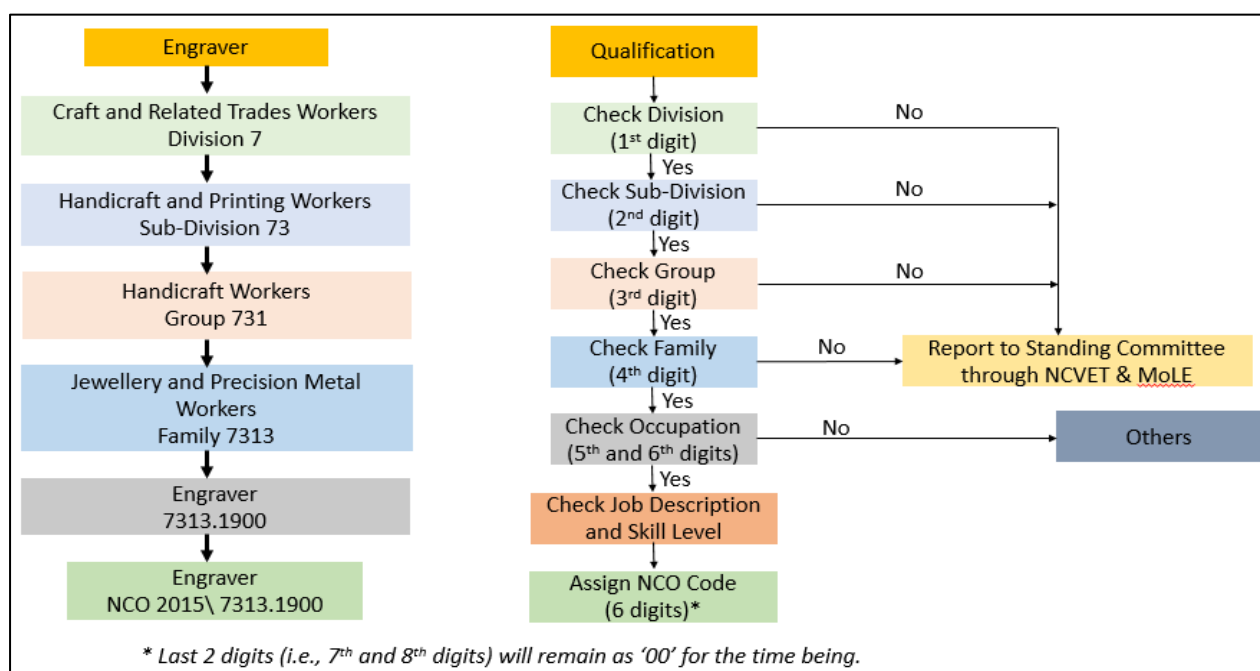
Step 3: The Group is now found to be 731, which is handicraft workers.

Step 4: Next, look in the Family for the qualification 7313 under jewellery and precision metal workers.

Step 5: When reviewing the job description and the skill level for the qualification, the 5th and 6th numbers for the code are recorded as 19.

Step 6: As a result, the qualification's NCO Code is 7313.1900.

Note: The last two digits (i.e., the 7th and the 8th digits) will remain as 00 for the time being. Please refer to recommendation no. 'vii' for details.

* Last 2 digits (i.e., 7th and 8th digits) will remain as '00' for the time being.

Drone Developer (Software) – NCO 2015\ 2512

To determine the relevant NCO code for the 'Drone Developer (Software)' qualification developed by IT-ITeS SSC, complete the steps outlined in the flow chart above:

Step 1: Determine the relevant Division, i.e., 2, under which the qualification falls, is the 'Professionals'.

Step 2: The suitable sub-division for the qualification is now identified as 25, which is 'Information and Communication Technology Professionals'.

Step 3: The Group is now found to be 251, which is 'Software and Application develops, and Analysts'.

Step 4: Next, look in the Family for the qualification 2512 under Software Developers.

Step 5: When reviewing the job description and the skill level for the qualification, there are 8 occupations which are listed under the family. However, an exact match for the qualification 'Drone Developer (Software)' cannot be found.

Step 6: If the AB feels, that the Job Description of the Qualification File doesn't match with any of the 8 occupations listed then a code till first four digits that is upto family level can be assigned which in this case is 2512, and the same maybe communicated to the Standing Committee.
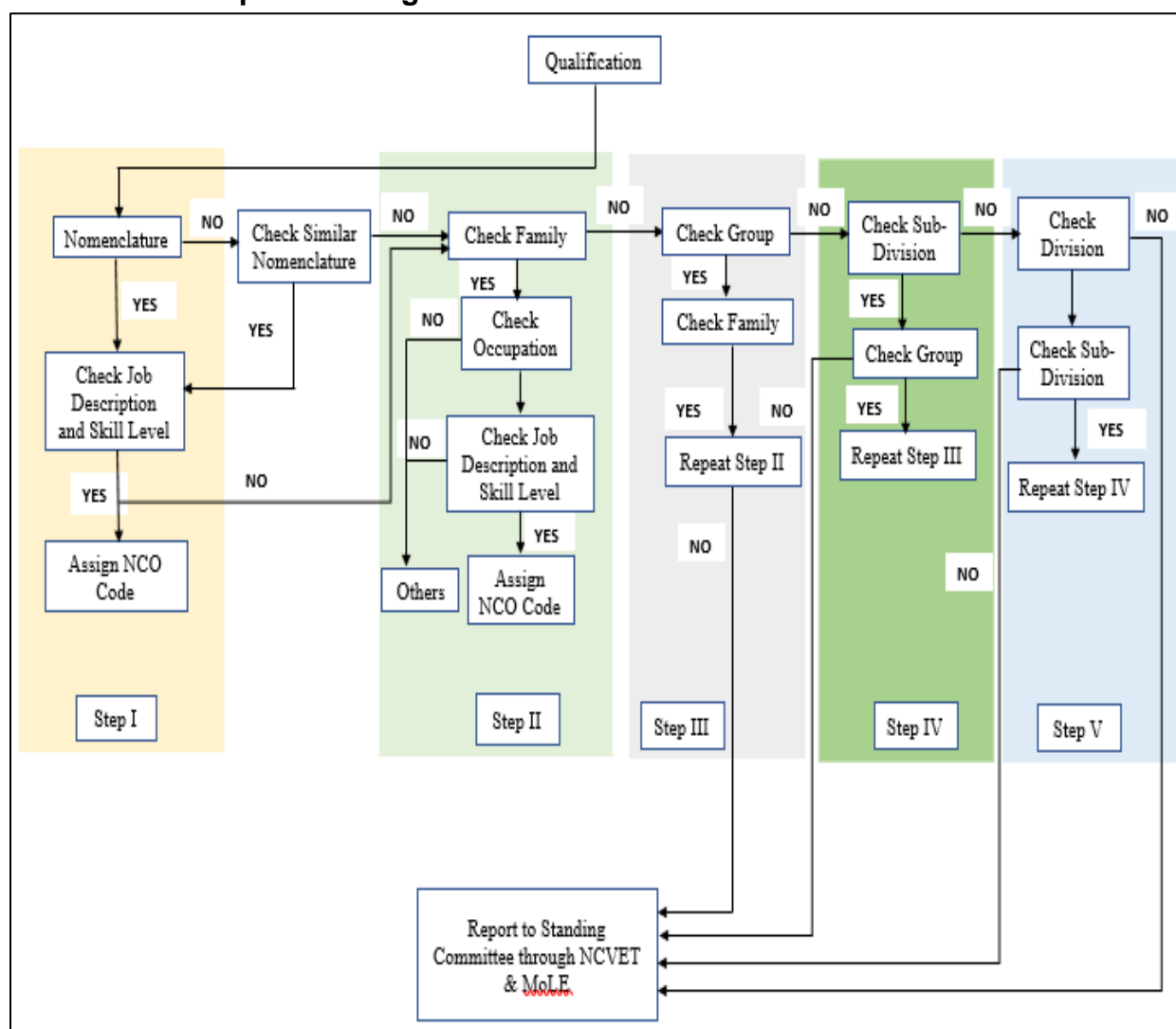
Assistant Yoga Instructor - NCO 2015\ NIL

By following the steps specified in the flow chart provided, one can ensure correctness in providing the correct code for the certification 'Assistant Yoga Instructor' created by Healthcare SSC:

Step 1: It can fall under Division 2 and 3, but while going the detailed description of both the divisions, it was found that it is best suited under Division 3, under which is the 'Technicians and Associate Professionals'.
Step 2: The suitable sub-division for the qualification is now identified as 34, which is 'Legal, Social, Cultural and related Associated Professionals'.
Step 3: However, after this sub-division, no further Group can be mapped to the qualification. Therefore, no code can be assigned for the abovesaid qualification and the representatives of the Standing Committee, MoLE, or NCVET must be notified.

B. Upward Assignment

Engraver- NCO 2015\ 7313.1900

The methods outlined in the flow chart above can be used to determine the appropriate NCO code for a qualification called 'Engraver' produced by HCSSC.

Step 1: The precise nomenclature is confirmed and easily located.

Step 2: The job description and skill level as defined by the qualification are now mapped, if they are deemed to be relevant to the qualification.

Step 3: The NCO Code 7313.1900 is therefore mapped and assigned to the 'Engraver' qualification.

Drone Developer (Software) – NCO 2015\ 2512

To determine the relevant NCO code for the 'Drone Developer (Software)' qualification developed by IT-ITeS SSC, complete the steps outlined in the flow chart above:

Step 1: The exact name of the qualification is sought in the concordance table, but it is not found. As a result, proceed to check the qualification using the same nomenclature as shown in the flowchart.

Step 2: When checking for same nomenclature in the table, it is discovered that 8 occupations exist, so we check the Job description and the Skill Level.

Step 3: The exact job description cannot be mapped and thus we will look for the family that the qualification may come under. It is found that the qualification can be mapped under family 2, and thus proceed to the next step.

Step 4: The exact occupation cannot be found and thus we find the relevant Group, Sub-division and Division which is found to be 2512. However, an exact match for the qualification 'Drone Developer(Software)' cannot be found.

Step 5: If the AB feels, that the Job Description of the Qualification File doesn't match with any of the 8 occupations listed then a code till first four digits that is upto family level can be assigned which in this case is 2512, and the same maybe communicated to the Standing Committee.

Assistant Yoga Instructor - NCO 2015\NIL

By following the steps specified in the flow chart supplied, one can ensure correctness in providing the correct code for the certification 'Assistant Yoga Instructor' created by Healthcare SSC:

Step 1: The exact name of the qualification is sought in the concordance table, but it is not found. As a result, proceed to check the qualification using the same nomenclature as shown in the flowchart.
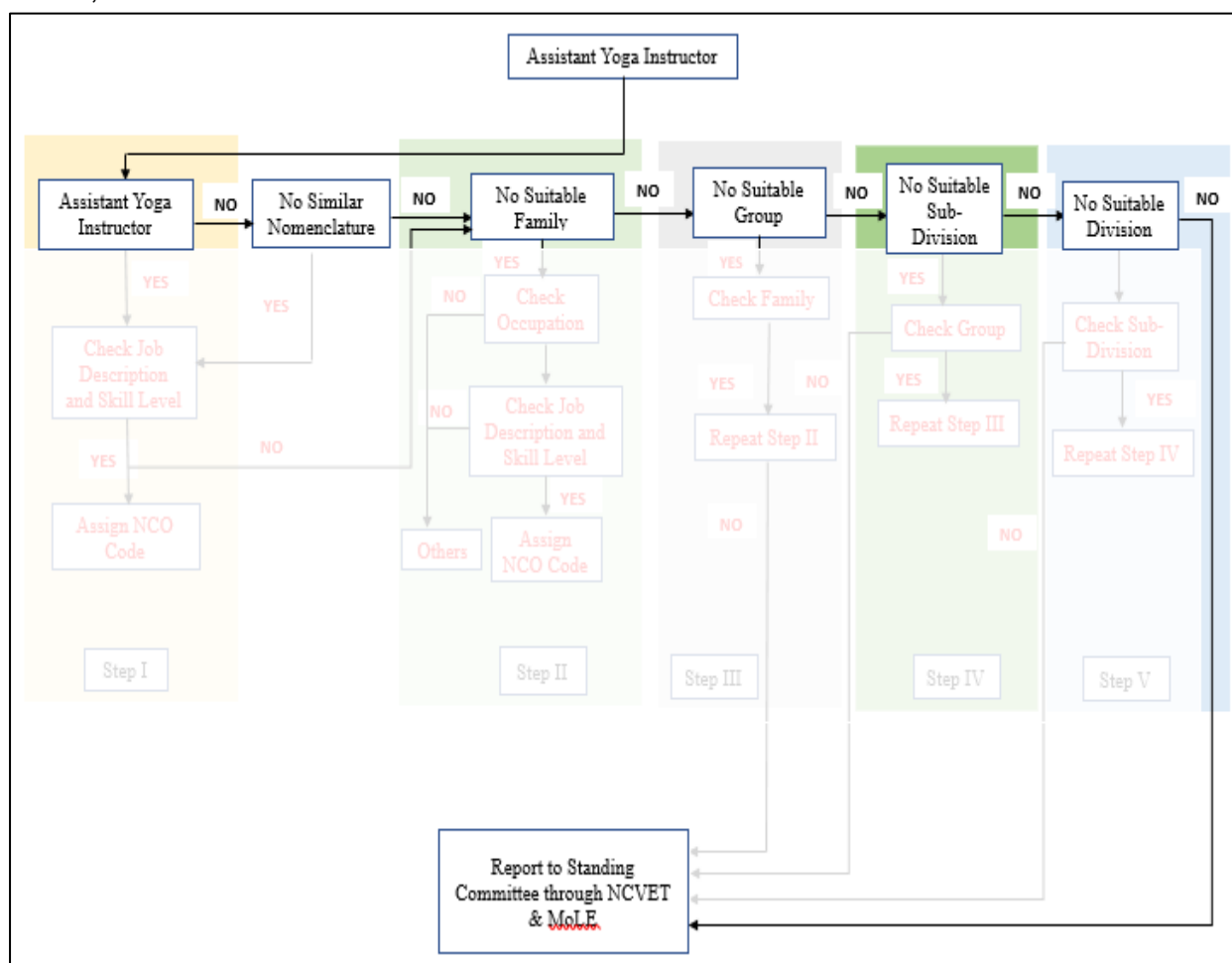
Step 2: When checking for similar nomenclature in the table, it is discovered that it does not exist, so we go to the next step.

Step 3: Look for the family that the qualification may come under. If no family can be discovered, proceed to the next step.

Step 4: If no applicable Group under which the qualification falls is found while searching for it, go to the next step.

Step 5: Look for the qualification in Sub-Division. If no appropriate Sub-Divisions are located, proceed to the next step.

Step 6: While going through the Division, it can be found that the qualification can fall under division 2 and 3 both. But while going the detailed description of both the divisions, it was found that it is best suited under Division 3, under which is the 'Technicians and Associate Professionals'. Therefore, no code can be assigned for the abovesaid qualification and the representatives of the Standing Committee, MoLE, or NCVET must be notified.

Note 1: For searching various matching families, occupations, with respect to a qualification, Ministry of Labour and Employment has developed a search engine which is available at ***https://dge.gov.in/dge/nat*** .

5. Conclusion

NCO codes branch out in a highly standardized way, resulting in an accurate depiction of the kinds and types of job roles present in that occupation. These are also in line with international standards, which will create opportunities towards international equivalence and mobility of the learner's undertaking skilling and TVET qualifications and curriculum.