सत्यमेव जयते

GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

Dakshata

A Holistic Programme Framework for Deepening of Aptitude, Knowledge, Skill, Handiness & Ability of ITI Trainees

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1. Introduction

1.1 Background and Need for Dakshata

1.1.1 The 'Make in India' campaign focuses on facilitating investments, fostering innovation, enhancing skill development, protecting intellectual property & building best in class manufacturing infrastructure. Announcement made in union budget 2020-21 envisioned that each District should develop as an export hub; this would require substantial skilled workforce to be developed in each district to meet the impending requirement.

1.1.2 Further, the prevailing situation under pandemic COVID-19 has seeded the idea of 'Atmanirbhar Bharat'; further strengthening the vision of local manufacturing.

1.1.3 Less than 5% of workforce in India has received any formal skill training[1] leading to a very pronounced skill gap both in terms of quality and quantity. Overall skill gap would be significantly larger than the incremental workforce requirement as even the existing workforce would need reskilling, upskilling or any other skill specific training.

1.1.4 Employment opportunities across the ITIs i.e. long-term vocational education are substantially better than the short-term training courses owing to comprehensive nature of curricula and better industry acceptance. Data from labour market surveys in India have shown that individuals with formal vocational education training have a higher probability of being salaried workers than casual workers, or workers with general secondary education[2].

1.1.5 As per the current enrolment trend across ITIs, 46% of Industrial Training Institute (ITI) trainees are from below poverty line households. Hence, strengthening the ITI ecosystem becomes critical for supporting trainees from substantial number of low-income households and providing them opportunity to enter the workforce at higher wages.

1.1.6 A quick analysis of school-based data indicates that number of students enrolled in secondary level are approximately 390 lakh and that in higher secondary is about 247 lakh. The transition rates and dropout of non-interested students between secondary and higher secondary school is approximately 36%. It means in the cohort of 15-19 years of age as many as 140 lakh may not be seeking further school education or higher education, should they try for mainstream vocational

[1] Annual Report 2015-16, Ministry of Skill Development and Entrepreneurship
[2] Based on 68th round of NSSO survey (2011–2012), Agrawal and Agrawal 2017

training but not more than 20% may be accommodated given capacity constraints in Industrial Training Institutes (ITIs).

1.1.7 While capacity remains a constraint, the National Skill Policy in its objectives among others has also sought to provide seamless integration of skill training with formal education, improve employability, productivity, improve quality of training, training infrastructure and create quality trainers.

1.2 Industrial Training Institutes (ITIs) and Apprenticeship Ecosystem

1.2.1 The Directorate General of Training (DGT) under the Ministry of Skill Development and Entrepreneurship is the apex organisation for development and coordination at National level for the long-term programmes relating to vocational education and training. DGT is responsible for running long term vocational training programmes at national level through the ITI ecosystem. All ITIs have to work under the policy ambit laid down by the DGT.

1.2.2 ITIs are primary training institutions for delivering the long-term vocation education and training. Training periods generally range from six months to two years in 137 NSQF compliant trades or courses. Prerequisites for the enrolling in these trades is for a student to be either 8^{th}, 10^{th} or 12^{th} pass as per the trade's guidelines and requirements. Upon completion of the training, trainees appear for the All India Trade Test (AITT). Successful candidates receive the National Trade Certificate (NTC) issued by DGT. The ITIs can be divided into two broad categories:

A. Government ITIs which are operated and supported by the State Directorate through their respective state government

B. Private ITI – Which are granted affiliation by the DGT based on recommendation and review the respective State Directorate but are operated by private institutions and individuals

1.2.3 NSTIs are centrally governed and funded institutions under the aegis of DGT and are responsible for imparting Training of Trainers (ToT) programs. They also conduct training in advanced or new age training program to the trainees across the vocational education ecosystem.

1.2.4 DGT runs three primary schemes Craftsmen Training Scheme (CTS) in ITIs, teacher training focused Craftsmen Instructor Training Scheme (CITS) in NSTI and iToT and the Apprenticeship Training Scheme (ATS) through participating industries. Dual System of Training (DST) and flexi-MoU Scheme are industry driven versions of the CTS.

1.2.5 Currently, 14,988 ITIs across the country have capacity to train 25 lakh trainees in 137 NSQF aligned CTS trades or courses. Of these ITIs, only 20.4% i.e. 3065 are Government ITIs. For teacher training there are 51 teacher trainings institutes with aggregate training capacity of 12,000 across 38 CITS trades. Additionally,

2.64 lakh apprentices enrolled in 261 designated apprentice trades are cornerstone of long-term vocational training in India.

1.2.6 DGT also works towards monitoring and implementation of the Apprentices Act of 1961 which was enacted with the objective of providing trainees with industry relevant training and to utilise the facilities available in industry for imparting practical training with a view to meeting the requirements of skilled manpower for industry. As of now DGT is the apex body coordinating and implementing ATS in 261 designated trades. After completion of these apprenticeship trainings, DGT conducts assessments of the trainees and awards them with National Apprenticeship Certificate (NAC).

1.3 Challenges across Long-term Vocational Education and Training

Counselling and Mobilization:

1.3.1 **Perception and public mindset:** Perception of ITI education as the career choice for the less academically qualified strata of the society giving an impression ITIs are for school dropouts leading to disinterest amongst vocationally deft and bright candidates.

1.3.2 **Limited Participation from Female trainees**: Due to perception of ITI training being focused on engineering trades with employment in the manufacturing sector there is limited participation (approximately 8 %) of female candidates requiring urgent measures and advocacy.

1.3.3 **No Linkage between Trainee Aspirations and vocational offerings:** Current mobilization approach is more driven by the availability of seats and does not considers the trainee's interest and aspirations. The trainees are enrolled basis the availability of seats in a particular trades and not their aptitude or aspiration.

Teaching-Learning Resources:

1.3.4 **Lack of Access**: The ITIs currently are spatially distributed in an unequal manner. All 14,988 ITIs are located in 3000 odd cities leaving more that 40% blocks underserved. Long distances with no residential or expensive residential facilities inhibits student participation. There are only 3 ITI seats for every 100 children at secondary stage cohort.

1.3.5 **Limited Government Presence**: Only 20% of ITIs are government owned with majority trainings under privately run ITIs; wherein fees may go above INR 25,000 (annual) making it difficult for many economically backward trainees.

1.3.6 **Insufficiency of Quality Infrastructure**: ITI and Apprenticeship ecosystem currently faces a problem of having less than desired quality of training infrastructure including classrooms, residential facilities, workshops and laboratories as well as equipment. Owing to limitations and smaller coverage of schemes like Vocational Training Improvement Project (VTIP) and Skill Strengthening for Industry Value Enhancement (STRIVE), there is still a large un-

addressed requirement for upgradation of ITI infrastructure, as well as need for provisioning of continuous grants towards sustainability support.

1.3.7 **Insufficient Trainer Training Institute:** The current ecosystem is marred by a shortage of adequate number of Training of Trainer institutes. This leads to challenge of trainers not being able to keep themselves updated with changing technologies in order to impart industry-oriented skill training to trainees.

Training Delivery:

1.3.8 **Outdated Syllabus and Delivery methodology:** Industry feedback about syllabus and content of Indian TVET institution not being able to match with the pace of changing industry requirements. Despite large scale efforts to stimulate industry and industry bodies the industry academia linkage is currently missing. ITI curriculum are not aligned to the requirements of the industry, as a result of the above, a paradox is created wherein unemployment continues to coexist with inadequate skilled manpower issues.

1.3.9 **Shortage of Qualified Trainers:** The current ecosystem faces a shortage of qualified trainers (42% trainer posts in Government ITIs are currently vacant). This poses a challenge of inadequate and inconsistent training delivery across geographies in the system.

Assessment and Certification:

1.3.10 **Manual Assessment Process:** Currently Computer Based Testing is limited to few courses under CTS. Majority assessments are conducted under manual method (OMR based) which can be prone to errors and leads to a lengthy and delayed result declaration and certification process. Also, the system is not very cost effective.

Placements, Entrepreneurship and trainee mobility:

1.3.11 **Limited Placement tie ups and Apprenticeship / OJT opportunities:** The current system also faces a problem of low industry involvement making it difficult for placement of trainees. The industries also show unwillingness in paying additional amount of wages for formally trained graduates vis-à-vis an unskilled employee. Increased focus on OJT and Apprenticeship and mobilization of Industry Clusters are needed in enhancing industry involvement in the long run.

1.3.12 **Limited Vertical and Horizontal Mobility:** Currently vocational training does not have acceptability in the formal education system. The current mobility of polytechnic students joining mainstream formal education is limited to only technical trades. Candidates undertaking vocational training in non-technical trades do not have an option for vertical movement. Similarly, horizontal movement for trainees of technical trades to non-technical trades is allowed but this courtesy is not accorded candidates undertaking training under technical trades.

1.3.13 **Lack of Guidance for Entrepreneurship:** Trainees at times are unable to accept jobs due to hesitance in relocation to job location leading to dropping out of candidate after course completion. Also, there is a lack of guidance for availing self-employment or entrepreneurial opportunities.

1.4 Current Schemes, and learning from past schemes

1.4.1 As the custodian for the long-term vocational training in India, DGT with support from MSDE has taken up several initiatives and measures to enhance the infrastructure, training quality and relevance of the vocational training ecosystem in the country. Some of the key existing and previous schemes implemented across the ITIs and Apprenticeship systems along with learnings, pitfall and success stories is discussed below.

Upgradation of 1396 ITIs Through PPP:

1.4.2 Launched in 2007-08 the PPP scheme's objective was to improve the quality of Vocational education in the country. Under this scheme an interest free loan of INR 2.5 crores with a moratorium of 10 years was provided for upgradation / modernization to ITI via its IMCs.

Salient Features / Achievements: Upgradation of 1396 ITIs Through PPP

- IMCs (registered as society) constituted in each ITI. IMCs headed by Industry Partners for increasing industry interaction
- INR 3067.50 Crores released to IMCs under 31 states/UTs
- Industry contribution towards equipment and machinery with over 300 ITIs benefiting in 10 states

1.4.3 The scale of upgradation carried out covered only 1227 (of planned 1396) ITIs (<10%). Besides this the one-time loan for ITI upgradation and does little beyond that to effectively translate investments into results.

1.4.4 Dakshata on the other hand learns from this and is designed to bring infra transformation on a larger scale upgrading 30% of existing infrastructure and adding significant new ITIs; it has a dedicated component and systematic approach for providing operational support (during initial years) post addition and upgradation of infrastructure. Further, the program shall also cover capacity creation for Instructor training.

1.4.5 On the positive side the IMC or institutes society structure has been effectively utilized for implementation of several initiatives down the line; the under implementation STRIVE project also effectively utilized IMC which are nor headed by industry representatives.

World Bank Assisted Vocational Training Improvement Project (VTIP):

1.4.6 Launched in FY 2007-08 with support from The World Bank, this scheme had an objective of upgrading 400 ITIs in 34 States/UTs, and 14 central institutes. The main thrust of the program was to provide appropriate infrastructure, equipment, update syllabi and introduce new courses in the ITIs.

Salient Features / Achievements: VTIP

- Total Project Allocation: INR 1,928 crore; Expenditure Incurred: INR 1,700 crore Funding Pattern: 75:25 (90:10 for NE states)
- Development of NCVT MIS Portal capturing data for entire trainee lifecycle
- **Internet based distance learning** by setting up 10 hubs in central institutes & spokes in 194 ITIs developed
- Training for more than 20,000 instructors. Further **1,300 ITI Principals trained in IIMs** and other premier institutions

1.4.7 Like PPP scheme even VTIP did not address the issues of operational expenditure for maintenance of machinery. Further, the upgraded infrastructure was highly dependent on recruiting new instructors; not covered under the project.

1.4.8 VTIP also did not cater towards reforms or enhancement to the training delivery and methodology; later introduced in STRIVE project. However, STRIVE covers only a pilot for transforming learning experience in 1-4 trades.

1.4.9 Dakshata has factored in instructor salary support along with TLE, ITI upgradation and maintenance support during initial years. Dakshata shall also carry forward instructor training initiatives taken under VTIP and much needed improvement of NCVT MIS.

Enhancing Skill Development Infrastructure in NE States & Sikkim (ESDI):

1.4.10 The ESDI scheme was launched with an objective of enhancing access and reach of ITIs in NE and Sikkim with an expected out of INR 420.24 crores. With limited project outlay and focus geography ESDI was more of a regional initiative.

Salient Features / Achievements: ESDI

- Introducing three new trades per ITI in each of 20 ITIs. Supplementing infrastructure deficiencies in 28 ITIs by constructing new hostel, boundary wall and supplementing old and obsolete tools and equipment

1.4.11 Dakshata will continue establishment of new ITIs in the underserved areas, the learnings from ESDI shall assist in creating an operational strategy and identification of roadblocks in scheme implementation in the region.

Upgradation to Model ITIs:

1.4.12 The objective of this scheme was to upgrade an existing ITI in every state into a Model ITI to be evolved as an institution showcasing the best practices, efficient and high-quality training delivery and sustainable and effective industry relationship by engaging with local industry and becoming a demand center for its expertise and best performance in training.

Salient Features / Achievements: Model ITIs

- 29 ITIs have been identified in 25 States for this scheme with an empowered for efficient functioning

1.4.13 Dakshata shall incorporate and magnify the Model ITI upgradation scheme by establishing such ITIs in all districts of India. The upgradation scheme can be used as a pilot for Dakshata which shall utilize the learnings of the scheme for implementation at a larger scale. In times to come these Model ITIS can form an association like that of 'Navodaya Vidyalaya' in public education space and become a role model for other ITIs i.e. both government and private.

1.4.14 Unlike the previous Model ITI initiative that were planned as standalone model institutes, Dakshata envisages Model ITIs that integrate into districts overall skilling ecosystem and help steer it.

Skill Strengthening for Industry Value Enhancement (STRIVE):

1.4.15 STRIVE is the second phase of the VTIP; is a world bank assisted program with the objective of improving the relevance and efficiency of skills training provided through ITIs and apprenticeships. STRIVE is a Performance based Funding - Central Sector Scheme (CSS) with a budget of Rs. 2200 crore . The scheme's objectives can be divided into 4 Result Areas:

- Result Area 1: Improving performance of ITIs (INR 1,000 Crore)
- Result Area 2: Increased capacities of State Governments (INR 330 Crore)
- Result Area 3: Improved teaching and learning capabilities (INR 435 Crore)
- Result Area 4: Improved and broadened apprenticeship training (INR 212 Crore)

Salient Features / Achievements: STRIVE

- Finalization of ITI Grading framework and methodology and Grading of all ITIs basis the same
- Utilization of unique performance-based funding approach, whereby institutes driven by IMC structure need to submit strategic plans or ISP for funding and fund disbursement is linked with performance benchmarked against ISPs
- Finalization of ITI Selection Framework and Selection of ITIs for providing average grant of INR 2 crore under Result Area-1 of STRIVE
- Conducting Tracer Study to trace employment outcomes of the ITI graduates after one year of graduating from ITI. Pilot phase currently under progress
- First of its kind gender study to identify the reasons for low female enrolment
- Funding of Industry clusters across the country for improving apprenticeship trainings

1.4.16 As its scaled down predecessor, Dakshata takes several ideas from operationalization of STRIVE; these include industry driven approach, usage of grading, ISP (Institute Strategic Plan) and performance-based funding amongst others.

1.4.17 One of the largest components of STRIVE is improving performance of ITIs, achieved through grants towards upgradation of machinery, lab equipments etc. However, STRIVE focusses on improving the same of only 500 ITIs i.e. approx. 3% of total ITIs. The schemes also lacks or cuts down on provisions for any civil works; Dakshata on the other hand scales up the upgradation activity as well as includes creation of much needed new infrastructure to meet demand supply gap in geographies of high industrial activity or create/ catalyse demand by addressing supply side i.e. by creating a pool of highly skilled workforce.

1.4.18 STRIVE was the first scheme to address the challenges of relevance and quality in the ITI system. The scheme is focused towards upgradation of content and curriculum **(4 courses)** and capacity creation of the implementing stakeholders. Dakshata intends to scale this up and improve all trades curriculum and content; as well as scaling up Digital Learning efforts.

1.4.19 Dakshata as a scheme shall be a culmination of all the previous interventions of DGT. Dakshata by design has evolved from these prior initiatives adapting the learnings from them. It shall build up on the successes of the previous schemes by identifying the roadblocks during their implementation and shall accordingly plan and implement the scheme.

1.5 'Dakshata' - Holistic Programme Framework for deepening of Aptitude, Knowledge, Skill, Handiness & Ability of ITI Trainees

1.5.1 Dakshata provides a holistic 'Programme Framework' to address existing challenges being faced by the long-term skill ecosystem as well as the road map to accomplish the larger agenda of the National Skill Policy. It is a response to provide an environment of good training environment in a planned manner, thereby making it both accessible and aspirational.

Vision

1.5.2 Dakshata aims for further enhancement of learning outcomes of ITI graduates by leveraging learnings from implementation of ongoing/earlier schemes and initiatives.

- It is a programme with clear timeframe for enhancing the capacities in ITIs
- It focuses on improving the quality and deepening of abilities of trainees in vocational training
- It addresses the issues of gender equity and specifically focuses on the participation of girls
- It emphasizes symbiotic relationship of ITI and industry for acceptability of trainees on the demand side
- It envisages a vibrant partnership between the Centre, State and the Industry
- It strives to undertake advocacy for making skilling aspirational through developing contours of mobility

1.5.3 DAKSHATA aims for -

- Attracting more talent in vocational training by addressing both demand and supply side of the long-term skilling ecosystem
- Special focus on the girls and consciously increasing their participation and through this eventually participation of women in formal labour workforce
- Relevant and high-quality training that draws from industry needs making our future workforce adept and industry ready

1.5.4 It envisages to do so by taking steps towards enhancing access, increasing presence of government or government supported ITIs, supporting interventions for providing equivalency to vocational training, improving quality through ensuring availability of trained teachers, industry aligned curriculum, digital-blended content, robust pedagogy, effective assessment tools, and teaching learning equipment and tools, world-class infrastructure, and building industry connect.

1.5.5 Overall Objectives of DAKSHATA will -

- Enhance reach of vocational training to more than 500 seats per lakh
- Improve female participation by double from the current level
- Address quality of training through better industry linkages (at least 30% courses under DST)
- Increase supply of trained personnel to the industry by 200%
- Provide prospect for horizontal and vertical mobility of training with education

1.5.6 ITI graduates have been actively contributing in the nation building through their skills and workmanship and contribute majority of the workforce employed in the manufacturing sector of the country. In times to come, the nation will require more skilled manpower with diverse skill sets (multi-skilled) and competencies mainly owing to changes envisaged with launch of Industry 4.0, coupled with new and emerging technologies such as Internet of Things, Machine Learning, additive manufacturing etc.

1.5.7 Under the STRIVE various initiative have been undertaken which have been appreciated by the stakeholders across and are likely to yield successful result and hence its envisaged that these initiatives should be taken forward and scaled\ up under DAKSHATA. Some of these initiatives are revamping of all existing teaching-learning resources in blended mode, larger scale upgradation of training infrastructure and equipments, Strengthening training cum placement cell (for better career counselling, advocacy and industry connect), Implementing recommendations of Gender Study report prepared under STRIVE as well as operationalize Career Progression Policy (CPP) conceptualized under STRIVE.

1.5.8 Over the years, through various schemes many initiatives have been planned and implemented in the long-term vocational education ecosystem. Some of the key schemes and initiatives which have been implemented in the recent past include Upgradation of 1396 Government ITIs through Public Private Participation, Model ITI Scheme, Vocational Training Improvement Program (VTIP) and in progress Skills Strengthening for Industrial Value Enhancement (STRIVE).

1.5.9 Table 1. A below provides a comparative matrix clearly mapping Dakshata' s holistic approach with existing challenges, and learnings/ shortfalls of previous interventions or schemes.

Table 1. A Dakshata' s Holistic Approach Matrix

	Challenge	Steps taken under DGT Schemes	Strategies for DAKSHATA to mitigate challenges
A.	**Target Group Analysis and Counselling**		
1.	Poor Perception and public mindset towards ITIs	➢ Effective communication strategy through states and selected ITIs to create more awareness of employability outcomes and scheme benefits ➢ Dedicated funding of ~15 crores towards research, awareness and implementation of communication strategy]	➢ Establish Career Counselling Cell (C3) in each ITI. ➢ Counselling cum Advocacy Unit (CAU) at Model and Mega ITIs to match candidate aspirations to available trades ➢ Stronger coordination with the Industries to create a positive perception through various means
2.	Lower participation from vulnerable groups and female	➢ Gender study undertaken to understand reasons behind lower participation of female. ➢ Incentivization to participating ITIs on increasing female enrolment	➢ Counselling and advocacy targeted towards female trainees and their families through C3 and CAU ➢ Enhance accessibility through establishment of new ITIs Residential facilities for female and the vulnerable group in existing ITIs, Model ITIs and Mega ITIs ➢ Fee support to mitigate cost of learning ➢ Enhancement of seats and introduction of new courses in ITIs
B.	**Learning Resources**		
1.	Lack of Access to ITIs	➢ 29 Model ITIs under various Schemes institutionalized to enhance access ➢ Grants/loans to ITIs under 1396 PPP/ VTIP/LWE schemes to strengthen training infrastructure	➢ Opening of new government ITIs to cater unserved blocks through spatial analysis ➢ Upgradation of TLE of current ITIs and introduction of new courses in ITIs ➢ Establishing Mega ITIs at a State Level in areas with high

		➢ Scheme for opening new ITIs in difficult geographies	concentration of industries and Model ITIs at district level
2.	Inadequate Industry academia linkage	➢ Impetus on market – relevance of training under STRIVE. ➢ Grading of ITIs with focus on industrial linkages ➢ Introduction of revised guidelines for Flexi MOU and DST ➢ Sectoral Trade Course Committee to address the sectoral issues and demand – supply gaps	➢ Involvement of industry associations, clusters in policy making, demand assessment, course design, infrastructure development, training of trainers, hands-on training, apprenticeship& employment ➢ Focus towards OJT by establishing it as a part of trade syllabus
3.	Outdated Syllabus and Delivery methodology	➢ Revamping of curriculum of four popular trades through independent review of curriculum process ➢ Mandate of CITS for new trainers for awareness to teaching methodology and innovative training delivery tools	➢ Revamping of teaching and learning resources for all trades under new robust process of curriculum preparation ➢ Use of tech-enabled/simulation-based tools for understanding of key concepts ➢ Support for replacement and upgradation of TLE ➢ Upgradation of Bharat Skills Portal and shift towards blended learning course material
C. Training Delivery			
1.	Shortage of qualified trainers	➢ Robust career progression guidelines prepared in wide consultations with stakeholders ➢ Incentivization to states for reducing trainer vacancy ➢ Mandate of CITS for recruitment of new trainers	➢ Implementation of sustainable career progression plans for ITI instructors ➢ Mandatory Preservice, in service and upgradation training. ➢ ToT capacity creation at Model and Mega ITI level. ➢ CITS courses for all trades to cater to instructor requirements ➢ Support for new instructors to encourage training as career ➢ Each NSTI capacity to be increased for training of trainers

D.	**Assessment and Certification**		
1.	Manual Assessment and Certification Process	➢ Use of computer-based online assessment methodologies for regular and supplementary examinations on pilot basis ➢ Implementation of digital certification	➢ Computerized testing for all courses ➢ Continued digitization of certificates for immediate veracity ➢ Gathering credits with lifelong skilling/ re-skilling
E.	**Employability and Entrepreneurship**		
1.	Limited Placement tie ups and Apprenticeship / OJT opportunities	➢ Increased industry-academia linkage through industry representation as IMC Chairman/IMC members ➢ Revamping of module on employability skills with increase of its duration	➢ Revamping of curricula in alignment with industry needs ➢ Preparation of blended mode modules on employability skills for easy and anytime access of trainees
2.	Lack of entrepreneurial spirit among trainees		➢ C3 and CAU along with incubation cells at Model ITIs and Mega ITIs to handhold and support entrepreneurial aspirations

1.5.10 To deliver quality training to trainees and meeting the future industry demand, it is proposed to conceptualize a new scheme that would meet the challenge of skilling at scale with speed, standard (quality) and sustainability. This would provide an umbrella framework to all the disparate schemes and scale up the efforts.

1.5.11 Various intervention planned under Dakshata have been broadly categorized under 4 components. The details of each component I-IV have been shared in subsequent sections; along with tentative component outlay and outcome.

Figure 1.A. High-level diagrammatic representation of Dakshata' s holistic approach covering all facets of skilling, and focussing on its principle objectives of better access, quality, equity, industry relevance

1

Counselling and Advocacy Cells at district level

- Target Group Analysis, Setting up of Counseling and Advocacy Units – CAU

Equity and inclusivity

- Increase female participation through – better stipends – residential facilities in district ITIs – improve STEM participation by breaking stereotypes
- Stipends and scholarships to students from poorer sections

Aspirations and Equivalency

- Mainstreaming of Vocational Education with 12th standard equivalency - through linkage with NIOS/AIU by introducing 2 subjects, support for 2 teacher salaries
- Development of Credit Framework for upward mobility

2

Capacity - Improving Access to trainees

- Improving current formal vocation education and training capacity by 200% to bridge demand supply gap as well as catalyse demand
- Opening of Government ITI in underserved/ unserved blocks, Model ITI in each district with world class training infrastructure – collaboration with district skill committees
- Mega ITI in each State focused on a set of sectors, international partnerships, ToT

School Vocationalization

- Creating hub-and-spoke model for secondary schools wherein ITIs will collaborate in innovative ways for mutual benefit

3

Improving Pedagogy

- Trained Trainers – Regular Inservice Training
- Simulated learning environment, blended learning resources, e-learning and LMS

Industry Relevant Curriculum

- Sector Trade Course Committee with Industry person to facilitate

Quality

- Improved teaching and learning material – TLE replacement every 3 years
- Grant for all existing ITIs to upgrade machinery and equipments to provided international standard trainings

4

Trained Instructors

- Pre-Service Training mandatory
- Address instructor vacancy and career progression
- Strengthening of Instructor Training – Pre-Service training, Induction training, in-service training and one-time backlog of untrained teachers
- Improving ToT capacities through NSTI and ITOT upgradations

5

Efficient Assessments

- Digital question banks, computer-based assessment, digital certification through public registry
- Strengthen automation processes for timely examination and result

6

Industry tie Ups

- Mandatory industry training and support for OJT (on-job-training)

Entrepreneurship

- Mentorship & Handholding through Career Counselling and Advocacy Unit (CAU) and C3 – Career Counseling Cells
- Introduce new entrepreneurship module as a subject – train instructor or support one
- Incubation Centre Support at Model/Mega ITI or existing State Incubation Centre

2. Component I: Infrastructure Development Programme for Capacity Enhancement

2.1 Objective, Rationale, and Target Beneficiary

2.1.1 Improving Access & Outreach is one of the primary objectives of Dakshata. In line with National Skill Policy to improve our 'Training Capacity' the programme will support the creation and operationalization of new/ additional training infrastructure in both public and private through private segments through appropriate mix of grant, equity, loan and policy support.

2.1.2 There is a severe shortage of Vocational Education and Training infrastructure in the country. For an estimated pool of 4.4 crore student in the age group of 16-17 year there are 1.12 lakh senior secondary schools with 2.47 crore students and only 14,988 ITIs with 25 lakh annual training capacity. This leave an untapped cohort of 1.68 crore who do not enroll in senior secondary and would have limited access for ITI given limited capacity especially Government ITIs.

2.1.3 Further, way back Kothari commission had espoused for 50% of higher secondary student cohort in vocational stream and later Sharda Prasad Committee of 2016 suggested for at least 20% cohort in vocational training.

2.1.4 On the accessibility front, over 40% blocks/mandals across India have limited or no access to long term public vocational training in terms of availability of ITI. As much as 358 (approx. 50%) districts have a higher ratio of population per ITI. Additionally, 120 districts across India do not have access to vocational training in form of availability of Government ITI.

2.1.5 Given the supply-demand gap in vocational training infrastructure and on the basis recommendations of Sharda Prasad Committee of MSDE to have long term training facilities for 20% of the secondary school cohort, it is estimated that roughly 750 ITI seat are required for every 1 lakh population.

2.1.6 Under this component of Dakshata the current capacity utilization of seats under the mainstream vocation education will be ramped up from existing 25 lac capacity to 60 lac capacity over the next 10 years to reap the demographic dividend in the last decade of peak youth population. Contours of smart spatial plan for identifying geographical spread of the new training infrastructure is discussed in sections below.

2.1.7 The component is targeted towards all youth mainly after senior secondary education who aspire to and seek opportunity in the vocational training and not in formal education system. However, the new training infrastructure addition is shall be developed in manner so that girls in rural areas, rural youth and the urban poor benefit the most. For this reason, new ITIs are proposed at block level, and district level to improve accessibility of public vocational training.

2.2 Sub-components and implementation strategy

2.2.1 This proposed capacity expansion plan is envisaged through a multipronged strategy. The capacities will be created through two programmatic inputs i.e. upgradation of existing ITIs to improve the seating capacities and establishing new ITIs.

Upgradation of existing Government ITIs

2.2.2 All existing ITIs will be upgraded to the seating capacity of at least 500 with minimum 10 trades which may include cost-intensive 3-4 engineering trades, and 6-7 low-capex non-engineering trades mapped with market demand and target group aspirations. ITIs with capacity over 500 will be upgraded to 1000 seats across 10 plus trades, keeping focus on need of 500 ITI seats per lakh population.

2.2.3 Currently there are 2374 Government ITIs (of 3065) with less than 500 seats. Through the spatial capacity of current ITIs; 2264 select Government ITIs would be supported for enhancement of seats from current overall capacity 4.5 lakh (Government ITIs) to 16 lakh.

Table 2.A Upgradation of existing ITIs for increasing seats	
Number of ITIs	Government 2264 (Total) ▪ 1650 regular upgrades ▪ 614 Model ITI upgrades Private – 10,000 ITIs
Capacity per ITI	Regular upgrades – existing seats + 150 Model ITI upgrades – existing seats + 1500 Private ITI upgrades – existing seats + 100
Primary Beneficiary	Youth age group 14-19
Trades	10 (3-4 Engineering, 6-7 Non-engineering)
Salient Features	▪ Additional capacity may be added in a short span of time given the brownfield nature of the sub-component ▪ Established ITIs can easily mobilize candidates for additional seats at 90-100% occupancy

2.2.4 Additionally, effort will be made to improve capacities of Private ITIs; for the same policy level reforms such as relaxation in 'Affiliation Norms' and promotion of low-capex trades along with on-job-training will be looked at. Mechanism will also be devised for facilitating loans for Private ITIs seeking expansion.

2.2.5 It is worth noting that most private ITIs charge an annual fee of approximately INR 25,000; while the fee is still very high for majority of students coming from low-

income households, Private ITIs find it difficult to sustain at this fee level and meet break-evens for high capex equipments.

2.2.6 Approximately, 12,123 Private ITIs in the country with less than 500 seats; it is estimated that policy level support from DGT will help at least 10,000 ITIs increase an average of 100 seats each. This will help in creating an additional capacity of 10 lac over the project duration, without seeking additional government funding.

2.2.7 New infrastructure would be adding seats at block, district and state level though one of the following ITI type with each targeting a specific group of beneficiaries–

- Basic ITIs (block Level)
- Model ITIs (district level)
- Mega ITIs (state level)

Regular ITIs

2.2.8 Regular ITIs would be established at block level, finalization of locations would be based on population density, geographical spread, demand-supply gap in the region and accessibility. Blocks level locations will be identified with the State Governments such that it maximizes access and minimizes travel distance from majority of adjoining inhabited villages, as well as facilitates engaging faculty (where they can stay with basic facilities).

2.2.9 Exceptions and innovative models shall be made in case of hilly terrains including the Northeast region (NER) where travelling even for shorter distance is a constraint for students. In such regions pooling inf of resources to develop one large ITI with residential facility may be utilized. Additionally, in such region's efforts will be made to liaison with state education department to operate extension centers in existing secondary schools in a hub and spoke manner.

2.2.10 Additionally, for NER there will be special focus on developing residential facilities/ hostels for all female trainees as well as female trainers travelling from nearby areas to address constraints related to low female participation in these regions.

2.2.11 For addressing capacity challenges Dakshata comprehensively covers for all regions with nee infrastructure (Government ITIs) and upgradation of existing infrastructure. However, in-case of competitive selection amongst Government ITIs or in-case of phase wise implementation, North-eastern Region (NER) will be given preference.

2.2.12 Component III, of the programme focusses on 'Equity' and inclusion, in line with same special care will be taken to improve lives of special groups (trainees) including Divyang trainees. New infrastructure (capacity) created will take care through inclusion of special sanitation facilities for Divyang trainees, and carefully designing inclusive building i.e. classroom and ramps along with staircases wherever necessary. Also, inclusion of trades for Divyang trainees will be encouraged in new ITIs.

2.2.13 Trades for instruction at Regular ITIs will be selected in consultation with State Governments and will take into account local industries need, sectoral manpower requirement at districts level, and youth aspirations. This subcomponent seeks to add new 6.75 lakh seats in hitherto unreached or underserved high-potential blocks.

Table 2.B Basic ITIs	
Number of ITIs	2700
Avg. Capacity per ITI	250 trainees
Primary Beneficiary	Rural youth with focus on females
Trades	10 (3-4 Engineering, 6-7 Non-engineering) Inclusion of trades for Divyang trainees will be encouraged, with at-least one such trade in each ITI
Salient Features	▪ Additionally, Basic ITIs may also collaborate with district level skill body or district skill committees to provide infrastructure for conducting short-term trainings as per affiliation conditions ▪ Additionally, each ITI would also act as a hub for 5-6 secondary schools in adjoining areas for vocational education

Model ITIs

2.2.14 While Basic ITIs at blocks level will improve accessibility of mainstream vocational training, Model ITIs at district level will act as centers of excellence focusing upon export-oriented manufacturing, and high-end service sector jobs. Locations for new or upgraded Model ITIs shall be identified in consultation with State Governments, and shall take into account higher population density areas, high economic activity pockets, and vicinity to industrial clusters.

2.2.15 Currently 29 Model ITIs are operational across 27 locations in India. Under Dakshata, an existing Government ITI in the State may be upgraded to Model ITI or a new Model ITI may be developed as per availability of land and infrastructure. Model ITI in each district shall act as nodal body at district level for steering skilling initiatives by supporting District Skilling Committees.

2.2.16 The upgraded Model ITIs or new Model ITIs would be under the administrative control of an Institution Management Committee (IMC), with a chairperson from the Industry (preferably within 10 kms of the ITI).

2.2.17 Each new Model ITI or upgradation shall be co-funded by the Central Government and State Government. PPP partnerships will also be explored for Model ITIs basis availability of eligible Industry partner (only for operations). Financial outlay of the component and the funding strategy is discussed in subsequent sections.

Table 2.C Model ITIs	
Number of ITIs	734 (120 new, and 614 through upgradation of existing Government ITIs)
Capacity per ITI	2000 (average) Capacity would range from 1000 – 5000 per Model ITI, estimated with 400 seats per for 1 lakh urban population
Primary Beneficiary	Youth age 16-21 years, with focus on low income urban households
Trades	10+ (1:1 engineering and non-engineering) Additionally, Trainer of Trainer (ToT) in 2-3 trades in select Model ITIs
Salient Functional Features	▪ Provide for in-service refresher training of instructor in at least 2-3 trades, to keep instructors market relevant ▪ Act as assessment and training center for short-term trainings and RPL ▪ Training of Trainer - Model ITI that have more than 2,500 students enrolled under long term training to conduct CITS trades with support from NSTI in the region/ stats thereby enhancing the number of instructor schools amongst them. ▪ Focus on Industry driven 'Dual System of Training' schemes ▪ To have dedicated counselling and apprenticeship promotion cell ▪ Practice clear pathway for vertical mobility to a degree through earning of advanced certificate, diploma and advanced diploma through 'Credit Based' mechanism (details discussed in Component III) ▪ Potential for developing into Association of Model ITIs for maintaining their distinctiveness and easy flow of talent from one training school to another
Key Infrastructure highlights	▪ Residential / Hostel Facility for the trainees who would be travelling more than 25 kms (male) / 15 kms (female). A model ITI would have residential facilities on campus for at least 50% of the students and basic staff. ▪ Classroom and workshop sizes prescribed and nearer to international vocational training standards

Mega ITIs

2.2.18 One Mega ITI is planned across each state under Dakshata. Mega ITIs shall oversee and steer the ITI ecosystem in the State as well as provide certification and diploma for high NSQF level programmes that require high-end labs and equipments.

2.2.19 Existing NSTI may be considered for upgradation to Mega ITIs basis location feasibility.

2.2.20 Mega ITIs shall act as Centres of Eminence in the state and assist in driving the overall efforts for long-term vocational education in the state, ensuring quality and relevance of training. Mega ITIs shall have highest International Standards and will partner with an international institute of repute to foster innovation and get international training standards for a State.

2.2.21 Mega ITIs shall with capacity of 10,000 plus would be spread across 40-50 acres and have number of specialty centers. Mega ITIs shall work in a hub and spoke model acting as a hub with designated incubation & entrepreneurship cells, ToT cells disseminating information and best practices to ITIs (spokes) across the state.

Table 2.D Model ITIs	
Number of ITIs	32
Capacity per ITI	Approx. 10,000 for long-term training (Output 15,000 including provisions for short-term @50 seats per lakh population for a state)
Primary Beneficiary	Youth age-group 16-25 years seeking - Trainees seeking training in high end CTS-CITS trades - ITI passouts from CTS and CITS seeking B.Voc, M. Voc and other degree/ diploma programs - Shor-term training NSQF level 5 and above
Trades	10+ (1:1 engineering and non-engineering) Additionally, Trainer of Trainer (ToT) in 2-3 trades
Salient Functional Features	▪ **Center for Occupational Skills Acquisition (COSA):** responsible for imparting advanced training with technical support from international premier TVET institutional partners and offer dual certifications of both partnering institute and the DGT ▪ **Center for Advanced Sectoral training (COAST):** Focused training in three to five sectors basis the industry demands, providing end to end training for all the critical job roles in the sector. Upskilling of already engaged workforce in the sector to enhance their productivity and incomes.

	▪ **Center for Innovation and Entrepreneurship (COIE):** Shall promote entrepreneurship opportunities for trainees and others in the state by providing entrepreneurship training, mentoring, support for business incubations, and facilitation for market linkage and financing. The center to also focus on cluster-based micro-entrepreneurship, small and medium business and technology start-ups. ▪ **Center for TVET Practitioners Development (CTPD):** The center to offer training of trainers to enhance the pedagogical and technical competencies and leadership skills of TVET trainers, provide services in curriculum designs and development, and deliver learning resources and materials. The center to develop a long-term business plan, in consultation with ITIs and other TVET institutions to offer structured upgrading/refresher training programs to TVET institutes outside the state as well. ▪ **Center for Skill Research and Development:** The center shall provide skill related research and services, including updated labor market information on skills demands, emerging skills training programs, career guidance and TVET training information etc. The center will be responsible for collecting, managing, analysing, evaluating and communicating research and statistics about TVET in the State. ▪ Mega ITIs will have world class facilities and will have potential to deliver degree programs in future in Vocation Training
Key Infrastructure highlights	▪ Residential / Hostel Facility for the trainees who would be travelling more than 25 kms (male) / 15 kms (female). A model ITI would have residential facilities on campus for at least 50% of the students and 100% accommodation for the staff.

2.3 Financial Outlay Component I

Table 2.E High Level CAPEX Estimates for Component I						
SN.	Particulars	(a) No. of ITIs	(b) Incremental seats added per ITI	(c) Total no. of seats added	(d) Estimated cost per seat added (INR)	Total Component Outlay over 7 years *(INR Crore)
1	**Establishment of new Infra**					
	Regular ITI	2,700	250	675,000	215,000	17,308
	Model ITI	120	2,000	240,000	325,000	9,303
	Mega ITI	32	10,000	320,000	350,000	13,357
	Private ITI	1,000	250	250,000	-	-
	Sub Total	**3,852**	**-**	**1,485,000**	**-**	**39,968**
2	**Upgradation of existing Infra**					
	Regular ITI seat addition	1,650	150	247,500	161,250	4,760
	Upgrade to Model ITI	614	1,500	921,000	243,750	26,774
	Addition of New Seats in Private ITIs	7,600	125	950,000	-	-
	Sub Total	**9,864**	**-**	**2,118,500**	**-**	**31,534**
	Total	**13,716**	**-**	**3,603,500**	**-**	**71,502**

Key Assumptions –

- Cost of Building, Furniture, Tools and Equipment for Labs, and other basic amenities such as toilets have been taken into account
- Refer Annexure I for high-level cost estimations related to addition of seats through Regular, Model and Mega ITIs
- Cost of construction has been assumed as INR 24,440 per sq. meter
- Estimated cost per seat (d) is calculated basis standard ITI size or seats indicated in (b), and is subject to economies of scale
- Inflation rate @ 4% P.A has been considered for all calculations
- New capacity creation in Private ITIs will not be funded under the project and will be achieved through policy reforms

2.3.1 This Dakshata programme component would support infrastructure including building costs, teaching learning equipment, furniture & fixtures, and essentials such as power backup. Building costs will include proper sanitations facilities, library, training and placement cell and administrative blocks as per suggestive salient feature of the type of ITI.

2.3.2 The component would be co-funded by the Central Government, State Government in a ratio of 60:40; with 60% Central Government share and 40% State Government Share. In some cases, Industry (private) players may be selected by

State Government to operate the new ITI in PPP mode, however the infrastructure funding will be strictly limited to Central and State Government.

2.4 Expected Outcome

2.4.1 The programme component would improve availability and accessibility of affordable vocational education in the country with 200% increase in number of seats available. Approximately, one in every three adolescent/youth not opting for higher education would have alternative for joining formally skilled workforce; compared to one in every eight adolescent/youth now.

2.4.2 The programme component would not only help in achieving numbers but would also result in a community vocational training culture with block level access especially in rural areas. Impetus to Vocationalization of secondary school may become more achievable as hub and spoke model triggers in. Long term vocational training activities at district level and state level would be better coordinated and organized.

2.4.3 Additionally, Mega ITIs with the offering of advanced certificate, diploma and degree programs with credit mechanism will make vocational education more aspirational. Projected new training capacity added including all sub-components during project duration is 40 lakh taking the overall seats to 75 lac (including existing 25 lac and 10 lac expected addition in private sector ITIs through policy reforms).

3. Component II: Quality Improvement Programme

3.1 Objective, Rationale, and Target Beneficiary

3.1.1 Enhanced quality of training delivery shall be essential in addressing the challenges faced by the ITI and Apprenticeship ecosystem. While establishing new infrastructure shall assist in creation of capacity and shall enhance the learning ability and employability of the trainees, overall systemic reforms shall be required to make ITI and Apprenticeship ecosystem more effective, relevant and proactive towards creating a future ready workforce.

3.1.2 Upgradation of existing ITI infrastructure both in terms of physical infrastructure as well as training curricula and training methodology shall be undertaken under Dakshata. The quality training programme will thrust upon curricula improvement, introduction of new courses, contextual learning resource, improved teaching learning equipment including new age simulated learning experience, on the job training, focus on instructor quality & good assessment practices.

3.1.3 Upgradation of the infrastructure shall not only benefit the trainees with an enhanced learning experience but shall also address the challenges of poor perception of ITIs, and industry relevance.

3.2 Sub-components and implementation strategy

3.2.1 Dakshata programme also envisages to leverage the institutional mechanisms developed under the STRIVE scheme; and scale up some of the initiatives introduced under the STRIVE project.

Improvement of existing TLE and ICT resources

3.2.2 Under Dakshata, a grant similar to that in STRIVE shall be provided to 3000 existing Government ITIs for upgradation of teaching-learning equipment/ machinery, training facilities, library, workshops, and development of ICT capabilities or related learning aids.

3.2.3 On an average a grant of INR 2 crore per ITI will be covered for under this subcomponent. However, the exact grant allocation per ITI would depend on the number of trainees enrolling in the ITI, the Institute Strategic Plan (ISP) submitted by the state and other parameters to be finalized by DGT in the project guidelines. The project funds will be provided to the Institute Management Committees (IMCs) of these ITIs.

Leveraging Technology for Training Delivery - Upgradation of Course Content in Blended Learning Mode

3.2.4 Dakshata will address the challenge of keeping the ITI and Apprentice ecosystem relevant towards the changing industry requirement by revamping of teaching and

learning resources of all trades under blended mode. It will also look at apprenticeship courses in 261 designated trades.

3.2.5 Leveraging the learnings from STRIVE wherein an independent assessment of curricula development process and their pilot for four courses was conducted, Dakshata scheme shall review and revamp all the CTS and CITS courses in a modular manner which will allow easy update or replacement of modules without having to re-design the entire course.

3.2.6 Additionally, keeping in mind rapidly changing industry requirement and evolving technologies, 5 new courses will be developed every year under Dakshata. This will include new age technology related courses, and existing courses requiring complete overhaul.

3.2.7 Usage of technology-based training delivery for blended learning (AR / VR, MOOC etc.) for enhanced delivery and improved understanding and consistency in training quality providing a more real-life like learning experience while being more cost effective.

3.2.8 One-time Provisioning of Smart Learning Devices for select Trainees (50% in Government ITIs only) to increase adoption of digital learning and avail training via upgraded training methodology will also be covered under Dakshata.

3.2.9 Support to institutions and departments under DGT such as CD division, CSTARI and NIMI for improvement of relevance and contextuality of courses along with the alignment of courses with NCO/ NOS/ NIS and international standards. (Handholding/ capacity building support is also provisioned under Capacity Building and Project Management Support).

3.2.10 Support shall include developing IT tools, providing expert assistance, holding workshops meetings, conference, undertaking researches & evaluation of course content as well as testing TLE & simulating modelling and training.

3.2.11 A wider in-house curriculum committee of DGT with 30-40 Sectoral Trade Course Committee (STCC) shall be constituted to oversee the process along with arranging industry inputs. This committee with its STCC shall also be eligible to receive funding similar to CSTARI and NIMI etc.

Bharat Skills Portal for Online Trainer and Trainee Learning

3.2.12 Bharat Skills Portal – DGTs online portal to be upgraded and revamped from its current status as a platform for content sharing, content library and e-books into a fully operation online platform for blended learning, e-learning, and refresher trainings. The website will act as the single largest National Repository for Skill Development.

3.2.13 For the blended learning and e-learning part, Bharat Skills will be completely transformed into a learning management system and access shall be provided to

millions of youth across the ITI and apprenticeship ecosystem. For achieving this DGT shall work with NIMI, CSTARI and onboard industry players in education technology / IT space.

3.2.14 Portal be upgraded and launched as a fully functional Teacher Induction and Refresher programme in line with the career progression policy being developed under STRIVE.

3.2.15 It shall leverage technology for enhanced learning experience and better understanding of the concepts. AR/VR, and digital lessons through best faculties will be incorporated to the portal for ensuring consistency and access to improved learning methodology.

Increased Industry Interaction

3.2.16 Adequate collaboration between ITIs and industries would lead to provision of relevant practical skills for industrialization. The programme proposes to enhance engagement of industry players in areas of policy making, demand assessment, course design, infrastructure development, training of trainers, on the job hands-on training to trainees and employment.

3.2.17 Better utilization of IMC: IMC (Institute Management Committees) constituted by local industry members and the ITIs, such committees are currently functional in ITIs participating in STRIVE and some of the other government schemes. Each state/ITI will have to constitute IMCs (Institute Management Committees) as per the guidelines framed by DGT.

3.2.18 Adapting OJT culture: A concrete action plan for incentivizing and promoting already mandated On-job-training to be laid out providing trainees a better understanding of the curriculum and industry exposure. A provision of transport allowance for outstation trainees will be supported. Each course will have 1/3rd of its training hours as on-the-job training.

3.2.19 Higher number of Flexi MoUs: The flex-MoU scheme encourages large industries and institutions to run tailored courses in the industry itself followed by a joint certification with DGT. Efforts shall be made to onboard more industries creating a mutually beneficial ecosystem for industries and trainees. The modules will be designed such that certain hours of training will be industry specific training.

3.2.20 Transition of all CTS batches to DST in phases manner: Efforts under Dakshata shall be made to accelerate DST adoption in ITIs by increasing Industry participation through Sectoral Trades Course Committee (STCC) interventions and industry aligned Curriculum. Further, cross leveraging of infrastructure for high cost equipment related trainings will be sought.

3.2.21 Model and Mega ITIs along with the District Skill Committee in the region shall assist in determining the right courses mapping industry skill gap and candidate

aspirations thereby developing a sustainable, collaborative and mutually beneficial approach with the local industry partners.

Strengthening NSTIs and teacher training mechanism

3.2.22 Dakshata to address the challenge of non-availability of qualified and trained instructors by fulfilling the current vacant positions with qualified personnel, upgrading the existing trainers and creating a pool of instructors through ITI and Apprenticeship ecosystem. Also, Dakshata to catalyse in the structural reform process for adoption of Model Career Progression path for instructors.

3.2.23 Dakshata shall cover revamping of teaching and learning resources of all CTS and CITS trades under blended mode. Standardized pedagogical and assessment tools shall be built around those CTS trades (80) for whom no CITS training is currently available; eventually leading to new CITS for such trades.

3.2.24 Mandatory qualification for each trade instructor shall be finalized and consultation with states shall be initiated for amending their RRs (Recruitment Rules) to incorporate these qualifications. Further, the model career progression pathways will also be prepared and shared with the states.

3.2.25 Unlike regular trainees, CITS trainees will remain in the ITI ecosystem for longer first as trainees then as employees. Therefore, a three-phase approach will be utilized for their continuous learning; first being CITS or 'Pre-Service', second upon becoming instructor i.e. 'Induction Training', third being 'Annual Refresher' trainings.

3.2.26 Currently the instructor ecosystem employs ~1.8 lakh employees. With the Y-o-Y growth in seats an incremental annual requirement of ~15000 - 20,000 instructors is envisaged. However, the current ecosystem has a capacity of training only 12,000 trainers in 38 CITS trades. This gap would be addressed through recasting teacher training CITS programme massively and creating additional capacity for preservice instructor training. The steps envisaged are:

- Improving existing NSTI capacity to meet the increasing demand of qualified trainers
- Expansion of NSTI (W) for women to develop adequate number of female trainers; this will also help achieve larger agenda of improving female participation at all levels. Such expansion plans would be based on trade or job preference characteristics of past female trainees and their aspirations.
- Setting up of S-CAU i.e. State Counseling and Advocacy units at NSTI for attracting best talent as trainers; as well as building industry linkages
- Center for TVET Practitioners Development (CTPD) at each Mega ITI with a capacity of 500 instructors (covered under Component I) to provide advanced teacher trainings

3.2.27 Further the NSTIs will also introduce CTS trades and run CTS batches to better utilize NSTI infrastructure. Besides above initiatives, in few locations Government ITIs will converge in or will be housed in an NSTIs; the purpose will be to develop Regional Institute of Education (RIE) and NCERT like model wherein exposure for teaching NSTI students will be provided in the in-house ITI.

3.2.28 Focus on creating induction program for newly recruited trainers and refresher courses for in-service trainers under Dakshata. Dedicated component with budget is being proposed for course design and operational expenditure for ToT, and also such in-service refresher trainings will be conducted through select Model ITIs.

3.2.29 In a nutshell apart from pre-service instructor training (i.e. CITS), an instructor would be expected to undertake induction training, and annual refresher training; this may be made mandatory for promotions and linked with collection of credits. Dakshata will cover for all new trainers joining the system including those from all existing Government and Private teacher training institutions.

Instructor Salary Support for newly added capacity

3.2.30 For new capacity added through upgradation of ITIs, and establishment of new ITIs under Component I; the scheme provisions for part salary support (50%) for instructors hired against added/ new capacity. This support shall be limited for a period of 3 years from date new batch commencement against said capacity.

Leveraging technology in assessments and certification

3.2.31 System of formative assessments, practical's and summative assessments will be improved through various interventions such as question bank development, model answers and usage of technology for assessment. This would improve systems efficiency to provide timely assessments with increase capacities.

3.2.32 Assessment shall be scientifically designed through rating of each question and a standard moderation, question picking and assessment exercise.

3.2.33 Digital certification implementation: Finalization of Digital certification process wherein certificates to be issued in digital, machine-readable formats making them portable and easily verifiable at scale and speed by employers and job matching platforms.

3.2.34 Maintenance of Digital Certificate through Public Registry and proper archiving will be implemented across the system.

Vocationalization of schools via Hub and Spoke Model

3.2.35 The ITIs shall support Vocationalization of school education by adapting a hub and spoke approach wherein each ITI shall invites students from 5-6 schools in the

neighboring areas by inviting them to ITIs and introducing them to vocational education and training

3.2.36 The students shall be introduced to various job roles, informed about the career prospects and future opportunities. This shall assist in advocacy towards ITIs further encouraging school students to opt for vocational education route.

Innovation

3.2.37 One of the key objectives of Dakshata is to continuous improvement, and improvements are of a function of innovative pilots. Citing the large, reformative and wholistic nature of the scheme, complemented by diverse audience and culture in the country, Dakshata sets aside an 'Innovation' fund to encourage continuous improvements through innovative pilot programs.

2.1 Financial Outlay Component II

2.1.1 This component deals with a lot of non-physical infrastructure development hence some of the envisaged expenses are recurring in nature. The below table outlines the expenditure to be incurred:

Table 3.A Financial Outlay Component II

S. No.	Particulars	Total Amount (In INR Crores)										
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Cost
1.0	**Improvement of existing TLE and ICT resources (Grant Based)**	800	1,000	1,500	1,500	1,200	0	0	0	0	0	**6,000**
1.1	Raw Material Support for Newly Added Seats	0	34	75	125	184	259	351	462	592	653	**2,735**
1.2	Annual Maintenance & Repairs for Newly Established and Upgraded Infrastructure		42	92	150	176	210	254	308	334	277	**1,842**
2.0	**Leveraging Technology for Training Delivery**											
2.1	Upgradation of Course Content in Blended Learning Mode	18	19	19	20	21	3	3	0	0	0	**104**
2.2	Development of Course Content in Blended Learning Mode	3	3	3	3	3	3	3	0	0	0	**20**
2.3	Provisioning of Smart Learning Devices for 50% trainees –	222	185	178	187	215	255	303	313	452	566	**2,876**

	(Central Government Share)											
3.0	**Bharat Skills Portal for Online Trainer and Trainee Learning**											
3.1	Upgradation of Bharat Sills into national repository for skill courses	50	50	40	10	10	10	10	10	5	5	**200**
3.2	Development and Management Learning Management System capturing entire Candidate life cycle	75	75	150	150	100	50	25	25	25	25	**700**
4.0	**Strengthening NSTIs and teacher training mechanism**											
4.1	Capacity Creation for CITS Training / Pre-Service Training (for 8,000 Seats) at NSTIs	27	32	38	44	55	66	79	0	0	0	**342**
4.2	*CITS Support*	2.51	2.75	3.01	3.31	3.67	4.09	4.58	0.24	0.25	0.26	**24.66**
4.3	*Induction*	0.73	0.82	0.93	1.05	1.24	1.45	1.68	0.74	0.77	0.80	**10**
4.4	*In Service*	3.77	4.12	4.52	4.97	5.50	6.13	6.86	7.14	7.42	7.72	**58**
5.0	Salary support to new instructors (50% Salary for newly hired instructors for a period of 3 years from seat addition)	162	360	599	701	837	1,011	1,226	1,336	1,121	772	**8,124**
6.0	Leveraging technology in assessments and certification	60	40	20	20	10	-	-	-	-	-	**150**
7.0	Promotion of Hub and Spoke Model for Vocationalization of schools	100	104	108	112	117	122	127	132	137	142	**1,201**
8.0	Provisioning for Project Innovation*	550	550	1,000	1,000	1,000	550	1,000	300	275	275	**6,500**
Total Envisaged Outlay		**2,073**	**2,501**	**3,831**	**4,032**	**3,938**	**2,550**	**3,394**	**2,893**	**2,949**	**2,724**	**30,885**

Assumptions -

- One Time TLE Grant to be accorded to existing 3,000 Government ITIs. The grant shall be similar to that of STRIVE in nature and shall cover the upgradation of existing labs, machinery etc. as per project guidelines
- Upgradation of existing course curriculum for 400+ trades to be done @ INR 10 Lacs per course and 35 new courses to be developed @ INR 30 Lacs per course

- Handheld Smart learning devices provided to 50% trainees (enrolled in Government ITIs) @ cost of INR 10,000 per device
- Capacity Creation for CITS Training / Pre-Service Training (for 8,000 Seats) at NSTIs covers the cost of new capacity creation for Teacher Training at NSTIs. The cost per seat for new capacity added is 1.5 times the cost for creation of one seat in a Model ITI i.e. INR 3.25 Lacs
- The cost considered for conducting training for instructors (4.2, 4.3, 4.4) is -
    - CITS tuition fees assistance of INR 2,000 per trainee to be provided to the respective NSTIs
    - Induction training for INR 6,250 per trainee for newly created seats under CITS and an additional 5% trainees to cover attrition
    - In Service assistance of INR 3,000 for annual refresher training per trainee
- The overall capital expenditure towards introducing technology-based assessments and certifications shall be incurred/ supported during the first 5 years of the Dakshata
- Raw material support @INR 2,500 per trainee per annum for newly added seats at Government ITIs (for all new capacity added in Component I)
- Maintenance support for newly created and upgraded infrastructure to be provided for a period of 3 years (for all new capacity added in Component I)
- The maintenance support shall consist of cost of repairs for lab equipment, generators, classroom and hostel wear and tear. This support shall also be extended for procurement of Annual Maintenance Contracts for upkeep of assets.
- 1% of the total establishment and upgradation cost has been considered as the total maintenance cost
- Inflation Rate @ 4 Per Cent per annum
- An annual budget has been allocated for operational expenditure incurred towards promotion of activities related to Vocationalization of school education
- * Estimated as ~5% of the Project Outlay

2.1.2 The envisaged budgetary requirements shall be achieved by pooling in of resources between Central and State government. Upgradation of course-curriculum in blended mode, Support for Instructor Training , Upgradation of Bharat Skills Portal, and Technology based Assessment/ Certification and Improvement of examination system will be completely funded by Central Government.

2.1.3 One-time grant for TLE upgradation to ITIs, Provisioning of Smart Learning Devices for 50% trainees, Raw Material Support for Newly Added Seats and Annual Maintenance & Repairs for Newly Established and Upgraded Infrastructure will be co-funded by Central Government and State Government with 60% and 40% contribution respectively.

2.2 Expected Outcome

2.2.1 The programme content would improve the overall quality and consistency in training delivery. With upgradation of TLE in 3,000 ITIs leading to improved training infrastructure.

2.2.2 Development of 5 new trades annually (Total 35) to meet changing industry demands, revision of curriculum and content for approximately 400 trades (including CTS, CITS and ATS) in a modular manner along with technology driven modes of training delivery (blended learning, AR / VR) shall assist in creating an industry ready workforce.

2.2.3 Capacity creation to train additional 8000 instructors annually in NSTI and ITOTs to meet the demand for trainers on continuous basis. Induction and Career progression - refresher trainings for 2000 instructors annually. Adaptation of career progression policy in most states which shall help in encouraging highly qualified instructors in the system.

2.2.4 Upgradation of Bharat Skills Portal and Technology based assessment shall assist in handling the web-based learning and assessment requirements for 60 Lakh trainees in a time bound manner.

4. Component III: Mainstreaming vocational education and improving equity

4.1 Objective, Rationale and Target Beneficiary

4.1.1 Vocational Education and Training ecosystem still face challenges related to mobilization, half-filled batches, vacant capacities and dropouts. A lot of effort has been put to improve participation across the ecosystem through advertisements, awareness campaigns, and through incentivization by means of concessional funding, grants, and direct benefit transfers. However, there is need for more to be done at policy level to make the TVET ecosystem in the country more aspirational.

4.1.2 One of the major challenges currently plaguing the Indian TVET system is a lack of vertical and horizontal mobility for the graduates. Currently vocational training does not have acceptability or pathways in the formal higher education system. Senior Secondary students from vocational blended streams and polytechnics have access to formal higher education pathways but ITI trainees do not.

4.1.3 ITI ecosystem provides easier access to organized job market with low entry barriers in terms of educational qualifications required for admission, low opportunity cost associated with short duration of courses i.e. 6 months – 2 years and low fee structure. These attributes make the ITIs popular among candidates coming from low-income group. However, with improving income levels and expenditure on education, and increasing higher education institutions - which are often seen as more aspirational in our country, the ITIs may struggle to attract students in coming years.

4.1.4 This component of Dakshata aims develop pathways between vocational education and formal education system, as well as ensure equity with formal education system to make ITIs and apprenticeships more aspirational as well as insure transnational acceptability of out skilled manpower.

4.1.5 The direct beneficiaries of this transformation would be approximately 2 million students in the ecosystem currently, and over 50 million youth workforce of who would be coming out of system over next 10 years (with improved capacity and access). With most of these coming from low income households.

4.2 Sub-components and implementation strategy

4.2.1 This component of Dakshata programme will be centrally implemented; with support of central government bodies and institutions such as NCVET and CSTARI. The component shall help enforce policy transformations and unique frameworks to all institutional affiliated with DGT. The proposed equity in system shall be achieved by means of three critical sub-components -

Conceptualization and adoption of credit transfer framework in ITIs ecosystem

4.2.2 A framework for lifelong learning needs to be chalked out which allows both vertical mobility and horizontal mobility of students with multiple entry and exit points for the trainees.

4.2.3 A credit-based framework supported by modular course and curriculum design will be developed for all trades or courses offered in ITIs under CTS, CITS and ATS schemes.

4.2.4 Courses will be developed as modules with credit allocated to each modules with help of CSTARI. Upon accumulation of certain credit points in one or more associated trades the trainee will be awarded certificate or diploma.

4.2.5 The sub-component will also develop 'Credit Accumulation, Normalization and Transfer' Mechanism which will allow students to join formal education system for obtaining degrees ; separate guidelines would also be developed for allowing ITIs students to carry forwards credits onto B.Voc programmes in Skill Universities or Mega ITIs much on lines of polytechnic and engineering.

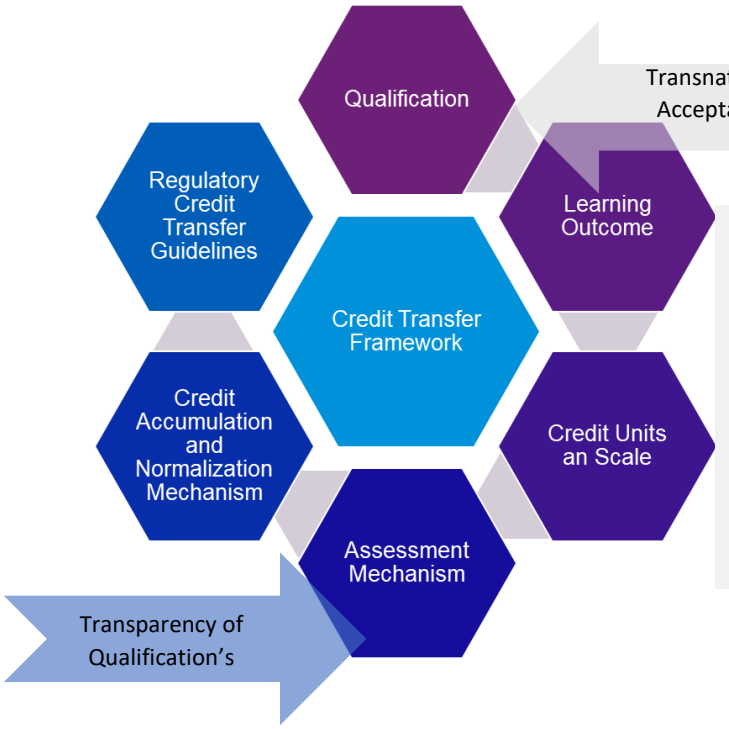

Figure 4 A. . *Key ingredients for developing a Credit Transfer Framework*

4.2.6 Efforts will also be developed to map credits with transnational standards that would allow our formally skilled workforce to be globally recognized

4.2.7 An internal committee comprising of industry experts, academia, and international vocational experts shall be constituted by DGT to oversee the programme; while the development of framework will be steered by DGT with help of CSTARI and similarly placed institutes of MSME and other ministries.

For equivalence to Senior Secondary

4.2.8 Key requirement of NIOS or any state open school is to have one language and another academic subject at senior secondary school. Towards this ITI curriculum will be aligned and a subject will be introduced at ITIs; such that 10th pass student in ITI can also attain equivalency of class 12th.

4.2.9 A student passing out of ITI may then be equated to class XII in vocational training stream with one language subject and an-addon subject like humanities, commerce, accounting or similar subjects that would be useful at workplace. This would be applicable to courses with 2-year duration only; trainees will study additional 800 hrs of academic subjects over two-year period.

4.2.10 The Dakshata programme though this component will support salaries partly for two additional teachers with support from state government (50:50), while providing them regular training etc. as prescribed by the Ministry of Education. The beneficiaries would be 10th pass students (only) who enroll for ITI programme of 2-year duration.

4.2.11 The list of subjects along with learning material and assessment mechanism will be chalked out as per guidelines laid down by Ministry of Education. A system like CBSE will be put into place for affiliation and CoE wing will be clubbed to form a central board of vocational education and training. The board will liaison with Ministry of Education, Association of Universities and similar bodies for equivalency.

Advocacy (Social Marketing Programme), addressing Gender inequity and inclusion

4.2.12 The key intervention will be advocacy & counselling for which each Model ITI in each District will have a dedicated, Career counselling Centre. This will train counselors at all ITIs and undertake trainings for high school principals and teachers. It will undertake advocacy & mobilization drives for admissions to ITI for all target group, with the specific focus on girls.

4.2.13 Creation of Social Marketing programmes in line with SMAP Philippines to make TVET more lucrative and enhance student participation. While gender study has recently been conducted under STRIVE project to identify the reason for lower female participation a SMAP type programme is necessary to create a positive image of the ITI system leading to high performing candidates opting for vocational education.

4.2.14 Dakshata will cover for part fee (50%) for female trainees in Government ITIs through reimbursement or exemption during the project duration to improve female participation and create gender equity; it is to be noted that PwD, SC, ST and OBC candidates are already covered under other existing schemes and will continue with the same. Dakshata shall only cover for part fee of female trainees

not covered under any of the mentioned categories or persons already covered under other schemes.

4.2.15 Establishment of residential facilities through infrastructure improvement, mobility support (such as bus passes), and other relevant interventions will be provided for all female candidates and People with Disabilities (PwDs) to the extent not covered under other existing schemes; this will improve the overall equity in the ITI ecosystem.

4.2.16 Component I covers for innovative models in Northeast region (NER) where pooling in of resources may be done to develop one large ITI with larger residential facility for all female trainees and liaising with state education department to operate extension centers in existing secondary schools in a hub and spoke manner to included female participation given travel constraints in hilly regions.

4.2.17 Additionally, expenses related travel and a daily stipend/ boarding or lodging support may also be considered in remote location for NER, so as to incentivize trainees in such regions as well as boost enrollments, capacity utilization and sustainability of ITIs in these regions.

4.2.18 The Dakshata programme will take adequate steps for inclusion of Divyang trainees and for them to benefit from the programme. Workshops shall be conducted with relevant institutions to understand how people differently abled can be included be it through inclusion of special toilets, alternatives for staircases, development of teaching learning material in braille or any other interventions. Outcomes of such workshops and studies will be implemented across all components.

4.2.19 While Component I covers for carefully developing new physical infrastructure to make lives better for Divyang trainees and for inclusion of trades for these trainees, under this component innovative pilots may be undertaken to further enhance learning experience, improve inclusion for Divyang trainees.

4.3 Financial Outlay Component III

Table 4.A Projected Deliverables Component III												
S. No.	Particulars	Total Amount (In INR Crores)										
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Cost
1	**Conceptualization and adoption of credit transfer framework**											
1.2	Framework Development	1	-	-	-	-	-	-	-	-	-	**1**
1.3	Workshops for Implementation of Framework for ~400 Trades @INR 2 Lacs / Trade	8	-	-	-	-	-	-	-	-	-	**8**
2	**Support for teachers' salaries for equivalence to Senior Secondary***	54	73	96	123	157	133	159	179	173	157	**1,304**
3	**Social Marketing Programme for Advocacy and Awareness**	4.5	3.5	2.5	2	1.5	1	1	1	0.5	0.5	**18**
4	**Improving Female Participation in mainstream vocational education**											
4.1	Support for Tuition Fees	31	69	115	170	239	324	427	526	581	629	**3,112**
4.2	Boarding and Lodging Support	15	21	27	35	44	56	70	83	91	98	**538**
Total Envisaged Outlay		**114**	**167**	**241**	**330**	**442**	**514**	**657**	**789**	**845**	**884**	**4,981**

Key Assumptions -

- Estimated Salary per teacher for equivalency – INR 40,000 / P.M at an Inflation rate of 4%
- Instructor salary support will be provided to instructors for a period of initial 5 years only post selection. 2 Instructors (1 for Language + 1 for Additional Subject) shall be required for every 200 trainees approximately.
- Approx. 46% of the total trainees (based Mott Tracer Study report) in ITIs are estimated to be 10^{th} pass only in years to come, of these approx. 66% are likely register under 2-year courses - Only these number of students can obtain 12^{th} equivalency (Table 4.A, 2). All calculations are done for mentioned cohort only.
- No. of Female trainees has been taken as 30% of total enrolment in Government ITIs for calculation
- 50% Fee assistance to female trainees under General Category (~20% of total enrolments) @INR 2,500 per trainee per annum. The assistance to marginalized and reserved category trainees to be covered under other state and central schemes.
- 50% of all Female Trainees Enrolled under Model and Mega ITI to receive boarding and lodging assistance @INR 2,500 per month

4.3.1 Sub-component one of this Dakshata component focusing on development and operationalization of credit transfer framework will be 100% Centrally Sponsored;

including development of framework and capacity building at state level by means of knowledge sharing workshops only.

4.3.2 For sub-component one adequate funds as indicated in component outlay will be set-aside for capacity building of CSTARI and other institutions involved; this shall also include provision for procurement of external consultant given the niche nature of work and quantum of trades or courses offered.

4.3.3 The Second sub-component focusing on teaching 2 subjects for equivalency with Senior Secondary Certificate, would be co-funded by the Central Government, State Government in Government ITIs in a ratio of 50:50. The teacher salary support would only be provided for the first five years of the appointment (against the position). Two teacher for every 200 seats in a Government ITI.

4.3.4 The third sub-component focusing on addressing gender equity issues and increasing female participation will be co-funded by the central and state governments with 60% and 40% contribution respectively.

4.4 Expected Outcome

4.4.1 A framework for lifelong learning would be developed which allows both vertical mobility and horizontal mobility of trainees with multiple entry and exit points. This shall make the system less restrictive and more aspirational thus improving enrollments; reducing dropouts

4.4.2 The component will help provide a large pool of aspirants for upcoming Mega ITIs; credit-based system will also assist in international mobility of formally skilled manpower

4.4.3 Students who do not continue at senior secondary level and are compelled to join workforce early will have alternate means for getting equivalent education while earning livelihood through apprenticeship programs.

4.4.4 Increased participation of women from existing 8% (overall including Government and Private ITIs) to 20% over the period of 10 years is expected from various interventions.

5. Component IV: Creating Employment Linkages

5.1 Objective, Rationale and Target Beneficiary

5.1.1 Gainful employment and livelihood generation is one of the key objectives of any higher and vocational education programme. A successful employment mapping the aspirations of the candidate is necessary to not only make the ITI and apprenticeship ecosystem more lucrative and desirable to the youth.

5.1.2 This shall be achieved by not only stimulating the industry but also making the trainees more desirable to the industry. Component 4 deals with increasing the industry interaction this component shall deal with developing industry clusters, creating entrepreneurial opportunities and increasing apprenticeship.

5.2 Sub-components and implementation strategy:

Employability Enhancement

5.2.1 As mentioned in earlier components, Dakshata will focus on employability skills and aspects of the same in the curriculum. Towards that teachers will be trained and modules, online material etc. will be developed.

5.2.2 Emphasis towards Dual System of Training and incorporating it to more and more programmes will move towards industry linkages. All programmes shall have at least 1/3rd of trade practical in an industry. The Industry will be provided basic training support & the student will be provided transport allowance.

5.2.3 The industry linkage to training will be promoted by gradual shifting and focus of industry on the training, reskilling and each establishment would be encouraged to spend a certain percentage of their HR expenses on the training with the awarding body. This shall lead to an enhanced budget for sponsored training for reskilling with the training bodies.

5.2.4 A regulation in this regards (similar to education cess) can be thought and created to assist in enhanced budgetary allocation for reskilling and upskilling.

5.2.5 Career Counselling Cells (C3) at all ITIs through training of existing instructors to act as counsellors for:

- Handholding and mentoring trainees for placements
- Providing Digital and print advocacy material

5.2.6 A full-fledged unit at each state and all Directorates for TC PC support that shall work through liaising with all LMIS and SMIS, National Career Counselling , develop local database of skilled trainees, and develop industry linkages.

Support for International Placements

5.2.7 Dakshata shall also work towards international placements for trainees. Under the scheme trainees shall be imparted with soft skills and language training for enhanced employability for international locations.

5.2.8 The scheme also provisions tie ups with international placement support agencies which shall assist in creating demands for Indian trainees as well as facilitating Visa and other legal formalities.

Industry Cluster Programme for Apprenticeship Promotion:

5.2.9 The current Industry Cluster driven Apprenticeship programme under STRIVE scheme shall work towards building capacity for 30 ICs through result base funding. Dakshata will work towards formalizing long term sustainable models for apprenticeship training based on the results form STRIVE leading to increased traction for apprenticeship trainings in MSME sector.

5.2.10 As per IBEF report 2013, there are more than 600 industrial SMEs clusters and over 7,000 artisan/micro enterprise clusters operating in India. Moreover, there are about 2,500 untapped rural industry clusters in the country. Some of these clusters are so large that they account for nearly 80.0 per cent of production of a selected product within the country. These clusters when linked with apprenticeship create an immense opportunity for growth on SMEs, rural microenterprises as well as provide ample of local employment overcoming migration issues.

5.2.11 Dakshata shall work towards vitalizing these clusters and creating an apprenticeship programme mutually beneficial for trainees and industry.

Entrepreneurship Encouragement

5.2.12 Creation of micro enterprises by entrepreneurship encouragement in low-mid income households yields sustainable results. It improves standards of living and creates wealth, not only for the entrepreneurs, but also for related businesses. Entrepreneurs also help drive change with innovation, where new and improved products enable new markets to be developed.

5.2.13 Dakshata shall work towards encouraging entrepreneurship amongst candidates under ITI and Apprenticeship ecosystem. This shall lead to trainees opting for self-employment or entrepreneurship instead of seeking wage employment.

5.2.14 Counselling cum Advocacy Units (CAU) in the Model and Mega ITIs shall work towards supporting entrepreneurship by:

- Mentorship & Handholding through Career Counselling and Advocacy Unit.in liaison with District Industrial Centre
- Introduce new entrepreneurship module as a subject – train instructor or support one. The curriculum to designed in alignment with the NIESBUD team
- Incubation Centre Support at Model/Mega ITI or existing Incubation Centre

- Incubation cells to be created under all mega ITIs and 10% of the model ITIs
- Incubation cells to provide technical and financial guidance - availing Mudra Loans and loans under START UP India initiative for raising capital.
- Organize Rozgar Melas in collaboration with industries and regional associations
- The cells to also assist towards incorporation, legal considerations (Constitution, Licensing and IPR management etc.) coupled with formulation of going to market strategy for the young entrepreneurs

5.3 Financial Outlay Component IV

5.3.1 The major outlay under this sub-component shall be incurred under conducting career counselling for trainees and providing placement and entrepreneurial. The expected outlay can be found below:

Table 5.A Projected Deliverables Component 4

S. No.	Particulars	Total Amount (In INR Crores)										
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
1	**Employability Enhancement**											
1.1	Career Counselling & Costs	38	52	68	87	110	139	174	213	240	266	**1,386**
1.2	Travel allowance for OJT	63	86	113	144	184	232	290	356	400	443	**2,310**
1.3	**Support for International Placement for**											
1.3.1	Instructor salary For Placement Support	6	9	11	14	18	23	29	35	38	41	**224**
1.3.2	Language Instructor's Salary	4	5	7	9	11	14	17	21	23	24	**135**
1.3.3	Placement Agency Support	190	258	338	433	551	696	870	1038	1133	1220	**6,726**
2	**Entrepreneurship Enhancement**											
2.1	Entrepreneurship Training for all Trainees (NIESBUD Curriculum)	351	503	698	945	1274	1701	2248	2836	3277	3730	**17,564**
2.2	Establishment of Incubation Cell at 10% Model and 100% Mega ITIs	1	1	2	2	2	3	3	3	1	1	**19**
2.3	Operational Expenses for Incubation Centres	1	2	3	4	6	8	10	13	15	16	**76**
Total Envisaged Outlay		**654**	**914**	**1,239**	**1,637**	**2,156**	**2,816**	**3,642**	**4,514**	**5,126**	**5,741**	**28,440**

Key Assumptions -

- Estimated Salary per teacher for equivalency – INR 40,000 / P.M at an Inflation rate of 4%
- Instructor salary support will be provided to instructors for a period of initial 5 years only post selection. 2 Instructors (1 for Language + 1 for Additional Subject) shall be required for every 200 trainees approximately.
- Approx. 46% of the total trainees (based Mott Tracer Study report) in ITIs are estimated to be 10th pass only in years to come, of these approx. 66% are likely register under 2-year courses - Only these number of students can obtain 12th equivalency (Table 4.A, 2). All calculations are done for mentioned cohort only.
- No. of Female trainees has been taken as 30% of total enrolment in Government ITIs for calculation
- Fee assistance to female trainees under General Category (~26% of total female enrolments) @INR 2,000 per trainee per annum. The assistance to marginalized and reserved category trainees to be covered under other state and central schemes.
- 50% of all Female Trainees Enrolled under Model and Mega ITI to receive boarding and lodging assistance @INR 2,500 per month
- NIESBUD curriculum-based entrepreneurship training to be conducted for all trainees enrolled in government ITIs for 2 days out which 50% of trainees shall undergo training for another 15 days and 30% of this subset (15% of overall trainees) shall undergo a further comprehensive training of 2 months.
- The common norms hourly rate of INR 43 with an early increment @ 10% has been considered for this calculation
- Assumption of 5% of total trainees enrolled in government ITIs undergoing training for international placements has been made of cost calculations.
- The monthly salary for placement support and language instructor @ INR 25,000 and INR 15,000 respectively has been considered for our calculations
- Placement agency support for 50% of the trainees undergoing international placement training shall be provided @INR 10,000
- Incubation cell establishment costs have been estimated @INR 15 Lacs per cell. The annual operational expenditure has been approximated at INR 10 Lacs per cell

5.3.2 The proposed expenses shall be incurred jointly by Central government through DGT, and State governments with respective contributions of 60% and 40% of the overall component cost.

5.4 Expected Outcome:

5.4.1 The Approach taken to create employment linkages via industry stimulation as well as adopting a placement driven approach in learning shall assist in improved learning as well as gainful employment.

5.4.2 Career counselling and assistance to more than 1.5 Crore trainees over the next 10 years shall assist in mapping the aspirations of the trainees to the industry requirements. Further, encouraging and incubating trainees to look for self-employment opportunities to curb migration towards industrial areas.

6. Governance, Institutional Capacity Building and Project Management Support

6.1 Governance

6.1.1 For the entire project implementation, a governance structure would be put in place; at the apex level a National committee would be constituted to oversee the activities of the programme. Same shall be headed by the Secretary, Skill Development & Entrepreneurship.

6.1.2 The programme implementing agency (PIA) will be DGT at the Central level. DGT will appraise, monitor, evaluate, finance, and supervise planned interventions and outcomes of the programme. PIA will be supported by National Project Implementation Unit (NPIU) comprising of DGT staff and a Technical Assistance through a dedicated team of consultants and experts (PMU).

6.1.3 The NPIU will be constituted in a structured manner with each of Dakshata' s components being run under leadership of senior DGT officials (DDG's and Directors). Adequate technical support consultant and support staff will be assigned for each components besides the expert pools.

6.1.4 The states would be finalizing institute wise strategic plan; and aggregate the same as district level and state level plans. These comprehensive state level plans after due appraisal by PIA would be put before the Project Approval Board (PAB) for approval. The PAB will be chaired by Secretary and shall have full financial powers for approval of plans.

6.1.5 At the state level also an apex committee under Chief Secretary will be constituted to give policy directive and facilitate co-ordination. An executive committee under the Secretary of state department looking after ITIs is envisaged.

6.1.6 The state project officer will be HoD/ Director of Technical Education or relevant department that looks after the ITIs; the same shall be implementing agency at state level.

6.1.7 At the ITI level Institute Management Committee (IMC) as indicated in component 1 with Industry representation shall be the key decision-making body. The ITI principals (especially Model ITIs) will also be empowered to work and collaborate with District Skill Committees on larger skill agenda in the region.

6.1.8 The NPIU will formulate implementation manual through which projects planning, implementation, and financial management directives will be standardized. Dedicated IT Support Team will support NPIU and Project Management Unit across all 4 components; planning and appraisal; finance; MIS and ICT. This IT support team will have dedicated teams for IT Infra Management, Data Management and Analytics.

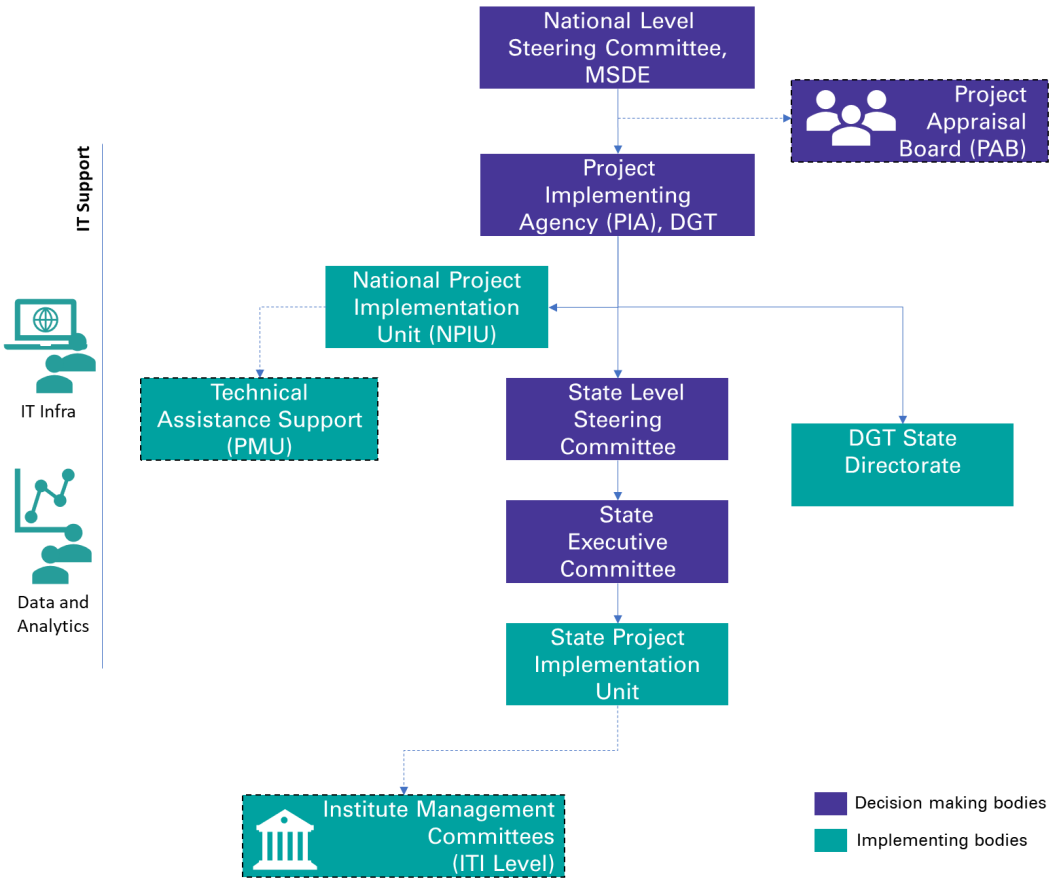

Figure 6. A
High level diagrammatic representation of governance structure indicating key decision-making bodies and implementing agencies at central and state level

6.2 Capacity Building and Project Management

6.2.1 Along with 4 key components, Dakshata will support institutional capacity building at both Central Level and State level. For this purpose, provision will be created for instating of consultant at state level and establishment of a dedicate Project Management Unit (PMU) at the central level (referred to as Project Management Consultant – PMC in figure 6.A).

6.2.2 For capacity building of institutions such as CSTARI, NIMI and the State Government; separate funds will be set aside. This funding support will take care of all workshops and operational activities being performed by administrative bodies under the project.

6.2.3 With a very lean State Directorate, a very focused DGT core team primary deployed in critical areas such as affiliation and examination, and limited capacities of agencies such as CSTARI and NIMI, capacity building in terms of recruiting and deploying adequate number of resources across the DGT ecosystem is of prime

importance to ensure operational efficiency of Dakshata and DGT ecosystem as a whole.

6.2.4 The Project Management Unit (PMU) will be comprised of key full-time experts at central level, and non-key staff or support consultant at State Level for coordination with State Government. The Project Management Unit will commence its work in 'preparatory phase' or 'year zero' and shall be present for the entire duration of the project. However, until the selection of PMU though tendering process during the preparatory phase the DGT at its discretion may engage additional consultants (from agencies engaged under existing DGT projects) to provide support for Dakshata.

6.2.5 The PMU will have Skilling Experts, Transaction Advisors, Procurement Specialist, Monitoring Expert, and Finance Expert along with support consultant. The hiring of consultant shall be done by DGT at the onset of the project.

6.2.6 Provisions for training of officials involved in execution of project including Central Government and State Government will be made under Institutional Capacity Building Component. Also, exposure visits of project staff during preparatory phase for learning and incorporating best practices will also be covered under this Dakshata.

6.2.7 To maintain timely fund flows and smooth implementation of the project, the States would need to create budgetary provisions and update pink book in timely manner. Incremental budget provisions would need to be updated year-on-year

6.3 Budget Provisions

Table 6.B Governance, Institutional Capacity Building and Project Management Support

S No.	Particulars	Total Amount (In INR Crores)											
		Year 0 (Preparatory)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
1	**Institutional Capacity Building of DGT, CSTARI, NIMI, CBVT and Other Implementing institutions***	150	300	300	600	600	600	300	600	150	150	150	**3,900**
2	**Project Management Unit**												
2.1	Central Project Management Unit	13	14	14	15	15	16	16	17	18	20	21	**178**
2.2	Regional Co-Ordinator	7	8	8	8	8	9	9	9	10	11	12	**99**

2.3	Technology and IT Consultants	6	6	7	7	7	7	8	8	9	9	10	**83**
Total Envisaged Budget		**176**	**327**	**328**	**630**	**631**	**632**	**333**	**635**	**187**	**190**	**192**	**4,260**

Assumptions -

- *Includes expenses towards consultations workshops and other operational expenses incurred, Estimated as ~2.75% of the Project Outlay
- A team of 30 dedicated experts to be deployed with the central Project Management Unit with the average monthly resource cost - INR 4.00 Lacs
- 25 State level regional coordinators to act as spokes to the central PMC team @ average monthly cost of INR 3.00 Lacs
- A dedicated team of ~15 IT consultants to act the projects IT Support Team for IT Infra Support and Data & analytics Support
- Inflation Rate Assumption @ 4%

7. Monitoring and Evaluation of Proposed Initiatives

7.1 A programme of this magnitude shall require intense real time monitoring in order to ensure adherence to program outcomes and plan. A collaborative approach between the NPIU and SPIU shall be taken for effective monitoring where in the NPIU team shall develop and oversee the monitoring framework to be implemented by State directorates.

7.2 Finalization of KPIs for funding mechanism

7.2.1 The programme will incorporate learnings from STRIVE and similar to it shall be a performance for fund-based approach with funding and disbursement to ach stake holder shall be linked to KPIs

7.2.2 The programme shall be divided into smaller measurable KPIs and funding to stakeholders shall be linked to it. The payouts shall be made upon successful achievement of those KPIs.

7.3 Physical and Field Visits

7.3.1 The NPIU team to have specialists in the area of infrastructure development for real time monitoring of activities under component 1.

7.3.2 Planned and regular field visits to be conducted for measuring the programme performance and effectively taking corrective measures.

7.4 Strengthening of MIS

7.4.1 Upgradation of Existing NCVT-MIS for enhanced dashboarding and to be designed to work as predictive analytics-based tool rather than just as an enabling and tracking system. It will also provide the quality analytics tools required for the necessary outlier analysis and facilitate early warning detection of gaps in the performance of the ITIs.

7.4.2 This will be achieved by collecting information corresponding to different parameters on a real time basis from candidates, ITIs, various department and states. Thus, a unified performance monitoring system will be able to monitor the following:

- **ITI affiliation management** - To manage the affiliation status of the ITIs including the self-audit reports submitted by them
- **Candidate lifecycle management** - Candidate Lifecycle to be tracked across all stages- mobilization, enrollment, and assessment and certification stage.
- **Placement and post-placement monitoring-** Module to track placements and post-placement support will be provided by training partners to their candidates

7.5 Grading, Affiliation and De-affiliation Portal

7.5.1 Creation of a portal and geo-tagging enabled mobile application to automate continuous grading process currently used for grading of affiliated ITIs on 27 parameters conducted via physical verification. The same portal and mobile app will be utilized for affiliation and de-affiliation of ITIs making the current manual process more efficient.

7.6 Research and Continuous Independent Assessments

7.6.1 As part of projects monitoring and evaluation provisions will be made for research and independent assessment. At critical junctures or milestones of the project; evaluations studies will be sanctioned by DGT and will be conducted across states and projects components to measure effective of the projects.

7.6.2 Such research studies will not only focus on measurable quantitative KPIs captured through MIS systems such as increase in female participation, increase in enrollments etc. but will also look at changes such as livelihood improvements, improvement in wages, and change in public mindset amongst others.

7.7 Budget Provisions

7.7.1 The planned outlay for strengthened monitoring mechanisms shall contain two major components indicated in Table 7.A below. These components are technical components; project management related Monitoring Activities are covered in PMC support

Table 7.A Budget for MIS and Monitoring Systems

S. No.	Particulars	Total Amount (In INR Crores)										Total Cost
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
1	One-time cost for ICT development (NCVT MIS, DAKSHATA Module and mobile app)	60										**60**
2	Operational expenses for IT support (@5% P.A)	3.0	3.2	3.4	3.6	3.8	4.1	4.3	4.5	4.7	2.0	**37**
3	Physical Inspection Visits	1.50	1.56	1.62	1.68	1.75	1.82	1.89	2.00	2.10	1.00	**17**
4	Conducting Studies, research papers, progress and outcome studies	1.50	1.56	1.62	1.68	1.75	1.82	1.89	2.00	2.10	2.00	**18**
Total		**66**	**6**	**7**	**7**	**7**	**8**	**8**	**8**	**9**	**5**	**131**

Key Assumptions:

- At least 2.5% of ITIs shall be physically inspected each year with expected expenditure of INR 20,000 per ITI inspection
- Annual maintenance cost of 5% to maintain the NCVT MIS and the IT systems shall be incurred. This shall also include cost of consultants for MIS reporting
- Inflation rate of 4% has been factored in for our calculations

Table 8.A Total Financial Outlay													All Values in INR Crores
S No.	Particulars	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Cost
1	**Component I: Infrastructure Development Programme**		4,197	4,988	5,836	6,744	8,416	10,212	12,138	11,045	4,513	3,413	**71,502**
2	**Component II: Quality Improvement Programme**		2,073	2,501	3,831	4,032	3,938	2,550	3,394	2,893	2,949	2,724	**30,885**
3	**Component III: Mainstreaming vocational education and improving gender equity**		114	167	241	330	442	514	657	789	845	884	**4,982**
4	**Component IV: Creating Employment Linkages**		654	914	1,239	1,637	2,156	2,816	3,642	4,514	5,126	5,741	**28,440**
5	**Governance, Institutional Capacity Building and Project Management Support**	176	327	328	630	631	632	333	635	187	190	192	**4,260**
6	**Monitoring and Evaluation of Proposed Initiatives**	-	66.0	6.3	6.7	7.0	7.3	7.7	8.0	8.5	8.9	5.0	**131**
Grand Total		**176**	**7,431**	**8,906**	**11,783**	**13,381**	**15,592**	**16,433**	**20,473**	**19,437**	**13,632**	**12,959**	**140,201**

* Total Cost includes both Central Government share and State Government Share for each component. For each component there are sub-components which are either co-funded by Central Government and State Government in a ratio of 60:40; or are totally funded by the Central Government, for break-up of funding between Central and state Government please refer Table 8.B

Table 8.B Total Financial Outlay			All Values in INR Crores	
S No.	Particulars	Total Planned Outlay	Central Share	State Share
1	**Component I: Infrastructure Development Programme**	71,502	42,901	28,601
2	**Component II: Quality Improvement Programme**	30,885	23,574	7,311
3	**Component III: Mainstreaming vocational education and improving gender equity**	4,982	2,862	2,120
4	**Component IV: Creating Employment Linkages**	28,440	16,356	12,084
5	**Governance, Institutional Capacity Building and Project Management Support**	4,260	4,260	0
6	**Monitoring and Evaluation of Proposed Initiatives**	131	131	0
Grand Total		**140,201**	**90,085**	**50,116**

For each component there are sub-components which are either co-funded by Central Government and State Government in a ratio of 60:40 such as in-case of new capacity creation; or are totally funded by the Central Government such as development of credit transfer framework. For few initiatives such as teacher salary support the central and state sharing shall be equal i.e. 50% each. For details of each sub-component and its funding i.e. weather it is funded / co-funded by Central and State Government or completely Centrally funded, please refer the financial outlay section of the chapter of the Component.

The norms for the financial assistance available under the scheme have been indicated below:

Sl. No.	Activities	Programmatic Norms	Financial Norms
Enhancing the Access of ITI and Apprenticeship Ecosystem (Component I: Infrastructure Development Programme for Capacity Enhancement)			
1.	Establishment and Upgradation of ITIs	▪ Creation of 2,852 new Government ITIs (Regular, Model and Mega ITIs) for enhancing the reach and access for trainees ▪ Establishing of 2,700 regular ITIs with a capacity 250 trainees per ITI at a block level. Creation of 120 Model ITI and upgradation of 614 regular ITIs to model ITIs at a district level ▪ Upgradation of 1,650 regular ITIs ▪ Establishing 32 mega ITIs with a capacity 10,000 trainees at a state level (some may be through NSTI upgradation) ▪ Creating an incremental training capacity of ~24 Lakh Government seats + 12 lakh Private ITI seats in the ITI ecosystem	▪ The construction and costs for ITIs to be as per the CPWD and State PWD rates ▪ The assistance to cover establishment and upgradation of institutes, residential facilities, setting up of labs and other institutional infrastructure ▪ Scheme to not cover regular operational expenses except the expenditure covered under other components ▪ The expenditure to be split at 60:40 ratio between Central and state government respectively
Improving the Quality and Relevance of ITIs (Component II: Quality Improvement Programme)			
1.	Upgradation of Training labs and delivery equipment	▪ TLE upgradation for 3,000 existing ITIs by way of grants to IMCs heading the ITIs	▪ The grant to be accorded basis the analysis and due diligence submitted in the Institutional Strategic Plan (ISP) ▪ Assistance only limited to procurement of equipment and upgradation of training methodologies. No assistance for civil work covered under this component
2	Upgradation of course and curriculum content	▪ Upgradation of curriculum and content as per the industry requirements for improved service offerings ▪ Developing institutional capacities, formation of industry and sectoral committees for development of industry relevant curriculum	▪ Grants for institutional capacity building for content and curriculum development ▪ handheld devices basis the vendor selection via competitive bid management process ▪ Technology firm for creation of new methods for delivery and digitizing the assessment and

Sl. No.	Activities	Programmatic Norms	Financial Norms
		▪ Development of new age methods of training delivery and distribution of smart devices to enhance the reach and delivery of training ▪ Career progression plans and Training of Trainer in alignment to the incremental instructor requirements ▪ Strengthening the NSTIs and teacher training mechanism ▪ Capacity creation for preservice, induction and in-service training ▪ Upgradation of assessments and certification process ▪ Raw material and annual maintenance for additionally created capacities ▪ Vocationalization of school education using hub and spoke model	certification process shall be selected via RFP with the overall outlay being capped as per the fund allocated to the component ▪ Operational expenses for Vocationalization of schools have been provisioned under the scheme ▪ Salary support for newly hired instructors for a period of 3 years shall also be accorded
Improving Equity (Component III: Mainstreaming vocational education and improving equity)			
1	Development of Credit Transfer Framework	▪ Grants to MSDE institutions for development of credit transfer framework and conducting workshops for implementation	▪ Internal funding for development of framework. Consultation from PMC experts under this component
2	Equivalency towards higher education	▪ Conducting additional courses to ensure fulfilment of NIOS standards for adaptability towards formal education	▪ Operational expenditure by way of instructor's salary for a limited period as per state's RR policy for trainer's
3	Advocacy and increased Female enrolment	▪ Creating a Social Marketing programme for advocacy. Hiring appropriate media and communication outreach agencies ▪ Tuition fee, Boarding and lodging Assistance to Female trainees	▪ Social Media advocacy agencies to be selected via competitive bidding process managed by NPIU and PMC team ▪ Direct benefit transfer to trainees availing residential facilities outside institute and grants to ITI basis the expenditure incurred
Improved Industry Linkages (Component IV: Creating Employment Linkages)			
1	Employability Enhancement	▪ Career counselling costs for Placement guidance and self-employment opportunities	▪ Grants to ITIs for salary and other expenditure for career counselling

Sl. No.	Activities	Programmatic Norms	Financial Norms
		▪ Workshops and industry tie ups for Apprenticeships and OJT	▪ Direct Benefit Transfer to trainees upon successful validation of attendance and enrolment under apprenticeship and OJT
2	Support for International Placements	▪ Soft skills and language training to trainees for international placements ▪ Tie ups with placement agencies for placement and legal support	▪ Trainer salary for prepping the trainees for international placements and the per student costs for placements to agencies covered under the scheme
3	Entrepreneurship Promotion	▪ Entrepreneurship Training as per the NIESBUD curriculum for trainees ▪ Establishment of incubation cells at 10% Model and 100% of Mega ITIs	▪ NIESBUD trainings to be as per the common norms rate ▪ Capital and Operational expenditure for Incubation cells covered in the scheme
Institutional Capacity Building, Programme administration and Monitoring			
1	Institutional Capacity building	▪ Support to institutional capacity building at both Central Level and State level by funding support to implementing institutions ▪ Provisioning for funds for innovations towards training and project management	▪ Performance based Budgetary allocation to institutes ▪ To be shared between the central and state governments
2	Project Management Support	▪ Provision for hiring of Project Management Unit / Consultancy and IT consultancy for programme implementation at central and regional level	▪ Allocation to DGT to payments to PMC team selected via competitive bidding process within the funds provisioned under the scheme
3	MIS Support for Monitoring	▪ Funding development, upgradation and maintenance of MIS systems	▪ Payments to technology vendor for upgradation. Operational expenditure for maintenance support team
4	Monitoring Visits	▪ Provisioning for operational expenditure incurred for conducting monitoring visits by DGT representatives	▪ Internal funding for visits conducted by DGT officials and pay-outs to inspection agencies selected via competitive bid process
5	Conducting Studies, research papers, progress and outcome studies	▪ Provision for selection and payments to agencies for conducting research studies and programme progress and outcome studies	▪ Payments to be made to outside agencies selected via competitive bidding process

Annexure I

Calculation of Per Seat Costing for Establishing Basic ITIs

Area Requirement Calculation		
S. No.	**Particulars**	**Details**
1	No. of proposed Seats created in each ITI	250
2	No. of Trainees in 1 Batch	25
3	No. of batches that can be parallelly run for 1 job role (1 class + 1 Lab) in one shift	2
4	No. of trainees	50
5	No. of Classrooms Required (1 Class + Lab)	5
6	Area Requirement for 1 Class + 1 Lab (In Sq. Mtr)	300
7	Total Construction Area Required (in Sq. Mtr)	1,500

Cost Calculations		
S. No.	**Particulars**	**Amount (in Lakhs)**
1	Construction Cost of Building @ Rs. 24,440 per Sq. mt.	366.60
2	Furniture, Tools and Equipment @Rs. 55 Lakhs per lab	300.00
3	Counselling Cell and Administrative Block (Approx. 500 Sq. Mtr) @ Rs. 24,440 per sq. mt.	122.00
4	Diesel generator with shed	30.00
5	Library (including books) and Washrooms, Parking, Employability Skills Labs, Boundary Walls (Approx. 300 Sq. Mtr)	250.00
Total cost for Establishment		**1,068.60**
Cost Per Trainee		**2.14**

Calculation of Per Seat Costing for Establishing Model ITIs

Area Requirement Calculation		
S. No.	**Particulars**	**Details**
1	No. of Proposed Seats created in each Model ITI	2000
2	No. of Trainees in 1 Batch	25
3	No. of batches that can be parallelly run for 1 job role (1 class + 1 Lab) in one shift	2
4	No. of batches in 2 shifts	50
5	No. of trainees per trade	**40.00**
6	**No. of Classrooms Required (1 Class + Lab)**	250
7	Area Requirement for 1 Class + 1 Lab (In Sq. Mtr)	**10000.00**
8	Total Construction Area Required (in Sq. Mtr)	**1040.00**
9	Hostel Seats required (50% of trainees + 100% of Instructors)	**8840.00**
10	Total Hostel Construction Area Required (in Sq. Mtr)	2000

Establishing New Model ITI		
S. No.	**Particulars**	**Amount (in Lakhs)**
1	Construction Cost of Building @ Rs. 24,440 per sq. mt.	2,444.00
2	Furniture, Tools and Equipment @Rs.50 Lakhs per lab	1,600.00
3	Hostel for 1,000 Students and Instructors @ Rs. 24,440 per sq. mt.	2,160.50
4	Administrative Building, Library, Conference halls, AR/VR rooms and Convention centres (500 Sq. mts) @ Rs. 24,440 per sq. mt.	195.52
5	Diesel generator with shed	100.00
Total Cost of Establishment		**6,500.02**
Cost Per Student		**3.25**

Calculation of Per Seat Costing for Establishing Mega ITIs

Area Requirement Calculation		
S. No.	**Particulars**	**Numbers**
1	No. of Proposed Seats created in each Mega ITI	10,000
2	No. of Trainees in 1 Batch	25
3	No. of batches that can be parallelly run for 1 job role (1 class + 1 Lab) in one shift	2
4	No. of trainees	50
5	**No. of Classrooms Required (1 Class + 1 Lab)**	**200**
6	Area Requirement for 1 Class + 1 Lab (In Sq. Mtr)	300
7	Total Construction Area Required (in Sq. Mtr)	60,000
8	Hostel Seats required (50% of trainees + 100% of Instructors)	5,300
9	Hostel space Requirement for 100 capacity (in sq. mtr)	850
10	Total Hostel Construction Area Required (in Sq. Mtr)	45,050

Establishing New Mega ITI		
S. No.	**Particulars**	**Amount (in Lakhs)**
1	Construction Cost of Building @ Rs. 24,440 per sq. mt.	14,664.00
2	Furniture, Tools and Equipment @Rs. 50 Lakhs per trade (For 10 Trades) (100 Labs)	8,000.00
3	Hostel for 5,200 Students, Instructors and guest faculty accommodations @ Rs. 24,440 per sq. mt.	11,010.22
4	Library / Research Labs / AR VR rooms with best in class equipment/ Incubation Centres and Counselling Centre	1,500.00
5	Administrative Building, Conference halls and Convention centres (5,000 Sq. mts) @ Rs. 24,440 per sq. mt.	244.40
6	Diesel generator with shed * 15 (hostel included)	200.00
7	ICT Capabilities	100.00
Total Cost of Establishment		**35,718.62**
Cost per Trainee		**3.57**

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