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Editorial

During an ancient period in Greece, the role of the teacher was first introduced, and teaching was considered an art form. Attending school and getting education was something that only the wealthiest could afford for their kids.

The role of the teacher or an educator was considered the most important one in the learning process as they gave invaluable knowledge and wisdom to the children.

However, the educators weren't the first pedagogues. The rich individuals of the area used slaves to take their children to school. They were considered as the experienced and wise who imparted knowledge to the children they were taking to school.

This is how the word pedagogue was created. It is described as the 'leader of children'. They guide the students academically as well as morally.

Pedagogy is a method of teaching in which teachers teach, both in theory and in practice. Pedagogy is shaped by educator's teaching beliefs and involves their understanding of culture and different learning styles.

It is essential for students to have meaningful classroom relationships in order to build on prior learning.

Pedagogy refers to the way of teaching students, whether it is the theory or practice of educating. It is a relationship between the culture and techniques of learning.

The main aim of pedagogy is to build on previous learning of the students and work on the development of skills and attitudes of the learners. Pedagogy enables the students to get a thorough understanding of the subject and helps them in applying those learning in their daily lives outside of the classroom.

Pedagogy in teaching can be referred to as an educator's understanding of how the students learn. The teachers are focused on presenting the syllabus to the students in such a way that it is relevant to their needs.

Pedagogy demands classroom interactions between the teacher and students which create a significant impact on the learner's mind.

Pedagogy enables teachers to understand the best suitable practices for a classroom setting. It helps them to know how different students learn and grasp information so that they can tailor their lessons to satisfy those needs. It is likely to improve the quality of teaching and the way it is received by the students.

Pedagogy plays an important role to help teachers understand the best ways to conduct a classroom. It gives them insights into how students learn differently in different topics so

that they can conduct lessons to suit these needs. It aims to improve the quality of education for students.

Teacher pedagogy refers to the pedagogy that is centered towards the teacher, who gives the most meaningful course information. In this approach, the teacher has a large responsibility of giving correct information to the students in the right way, irrespective of their teaching styles. The teacher can give a clear understanding of how the students are doing concerning their learning and also be an effective model for the target language. modern-day pedagogy is a complete interrelation of the concepts and ideas, along with the ways of teaching the students. It also indicates that these practices have direct involvement with the student's achievements, results, and skills developed after following the approach.

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Dr. S.T. Deepa
Editor

BURN SURVIVORS AND PSYCHOLOGICAL SUPPORT

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ABSTRACT

Burns are a global health problem, with a large number of physical and psychological problems.

Major burns can be a devastating event, with far reaching consequences. Management of burns is a long process, leaving the survivor physically and psychologically scarred. With improved management strategies, the survival rate has increased. With medical care, the scars can be reduced but not eliminated. Along with the scars, deformities and disabilities, the person has to face mental agony of long term treatment, disfigurement, functional loss, loss of vocation etc. Due to impaired function, there is change in the appearance, as well as in the personality.

The daily battle is multi - dimensional – physical, emotional, social and psychological. The much needed support has to come from the family, treating personnels, the rehabilitation team and the community.

Psychosocial rehabilitation is almost a lifelong process. This is where the psychologists step in - to provide support to the person during psychological adaptation – dealing with depression, anxiety, Post Traumatic Stress Disorder (LODHA et al 2020), helping with return to work, overcoming body image problems and changed relationships – which might otherwise cause social withdrawal and isolation. On the whole –help in improving quality of life of the burn survivor.

Thus, Psychology opens up opportunities to have a positive effect on someone's life. It helps a burn survivor overcome effects of trauma and deal with mental anguish positively, by boosting their self confidence via better coping strategies.

KEYWORDS : Burns – survivor – psychosocial rehabilitation

Burns are a global health problem, with a large number of physical and psychological problems.

Major burns have a devastating effect, with far reaching consequences. With improved management strategies, survival rate has increased. Along with scars, deformity and disability, the person has to deal with the mental agony of long term medical and therapeutic management, disfigurement, functional loss, loss of vocation, economic problems etc. This functional impairment brings about changes in the appearance and personality of burns survivor.

The daily battle is multi-dimensional – physical, emotional, social and psychological. The fact is that burn survivors are at a high risk of developing maladjustments. To name a few –

Post Traumatic Stress Disorder – anxiety, depression and PTSD are common post burn psychological problem affecting burn patients (Lodha et al 2020).

Return To Work - is another problematic area. The person may not be able to perform at the same functional level as before. Hand burns may cause much functional impairment (Mason et al 2012).

Health Related Quality Of Life – is also affected in various domains like psychological, social, vocational and economical. This can lead to social withdrawal and isolation (Spronk et al 2018).

Interpersonal relationships – there is a major impact on interpersonal relationship of the person with immediate circle of the family members, friends and also with strangers.

Body image dissatisfaction – occurs due to changes in appearance as a result of scars and disfigurements. Emotional trauma is more when face and hands are involved. This undermines their confidence.

Stigmatization – reduces self esteem, leads to social isolation and ostracization. In a developing country like India, future of a female child, prospects of marriage are affected.

Rehabilitative pathway –

Begins with planned approach for psychotherapeutic support – encouraging involvement of family, improving social skills – to interact with people and vocational guidance.

Organizations –

PCVC – In India, **Prevention of crime and violence against women**- provides support to women burn survivors by giving vocational training, making them self-reliant, helping them out of an abusive relationship – till they find their feet. Especially for acid burn survivors, they provide psychological support and boost their morale. They provide new job plans. In Chennai, India, a ‘writer’s café’ has made them self-sufficient – manned completely by women burn survivors. This vocational rehabilitation has helped them gain confidence and a sense of empowerment.

Asha Kiran - a ray of hope - is Mumbai (India) based organization, organizes ‘burn camps,’ especially for children (burn survivors), where they play, interact, and indulge in group activities. They have shown improvement in social interactions, performance grades and self-image. These camps help to foster self-confidence and independence. They cultivate new friendships and develop a sense of identity.

To conclude, psychosocial rehabilitation is important for social integration of burn survivors, helping them to re-integrate back into society. It can be a challenging as well as a rewarding work. It may be emotionally demanding and stressful, but satisfying in the long run.

When supported by family, treating personnel, rehabilitative team and the community, the survivors can be socially reintegrated. With realistic approach to a psychosocial rehabilitation, we can make a difference, in motivating the burn survivors.

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LANGUAGE, CULTURE AND CRITICAL THINKING: FOSTERING 21ST CENTURY SKILLS AMONG LEARNERS

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Abstract

Language is a social phenomenon, the principal objective of which is to ensure communication between people. It is used to form concepts and categories, which are born by culture, and influenced by their specific rules and choices in usage. It develops within a particular culture and tradition that influence cognition and, thus, is a key factor in the development of critical thinking. The specificities of language are fundamental to many aspects of communication. An individual's use of several languages at once involves different levels of assessment, information analysis, mindfulness, and memory. Accordingly, the number of languages spoken by a person determines his/her skills. Multilingual individuals have been found to exhibit clear cognitive advantages and are more flexible in their thinking. Bilingual individuals are reckoned to exhibit superior abilities in attention, memory, metalinguistic awareness, and understanding of symbolism. This paper focuses on the development of learners' critical thinking skills such as logic, observation, analysis, and rational assessment in consonance with the 21st century skills.

Keywords: critical thinking, 21st century skills, multilinguals, bilingual individuals, metalinguistic awareness, symbolism.

Introduction

21st century skills are a set of skills that are considered essential to thrive in today's world. Experts divide them into three groups: learning skills, digital literacy and life skills. These skills help solve many challenges and are highly valued by academicians. Modern education focuses on 21st century skills as they teach students how to study, work and live in the world. Today's education system helps students learn how to learn, promotes creativity, and encourages collaboration. 21st century skills provide the foundation for college education and help students succeed in adulthood. These skills are relevant to real-life challenges, technological advances, and the workplace of the future. 21st century skills help prepare students for the unknown. The four C's are considered the most important 21st century skills - critical thinking, creativity, collaboration and communication. These four skills help students succeed in school and the workplace. Most colleges understand the importance of 21st century skills and implement them into their curriculum as there are many ways to master this skill. We can ask others about our strengths and weaknesses, develop one skill at a time, and volunteer for leadership positions.

Today's world is characterized by globalization, rapid technological development and social diversity, making 21st century skills even more important for students. These practices require educators to create the foundation for successful learning practices and ensure that young people thrive in an ever-changing world. Opportunities for 21st century learners are also expanding. It includes international training programs, global educational exchanges and projects organized by companies with job opportunities.

21st century workplace has also become more innovative and competitive. To succeed in today's information age jobs, students must solve problems creatively, work in teams, communicate on social media, learn to use new technologies, and deal with large amounts of information.

Managers value employees who can meet these standards and have the ability to expand their skills even without academic or work experience. Therefore, the skills of the 21st century have become pertinent to succeed in the increasing competitive world. The 21st century saw significant economic changes and discoveries. Other current inventions include cryptocurrency, driverless cars and blockchain technology. With this innovation, we need to learn how to use it and how to adapt to unexpected situations.

21st century skills are essential for high school and college students entering today's corporate world. Many new careers are emerging in the labor market today: for example, cybersecurity specialists, social media specialists, and others. New careers, as well as future jobs, are full of unknown challenges. As a result, employers are looking for creative and attentive candidates with the ability to deal with unexpected challenges.

What are 21st Century Skills?

In general, experts divide 21st century skills into three groups: study skills, digital and information literacy, and life skills. This group has hard and soft skills that help the students adapt to the changes and trends of today's world. Each group is discussed in more detail here:

Study Skills

Modern learning is not just about memorizing material before a test. Instead, it is a lifelong journey where every new experience can be a valuable lesson. 21st century skills are essential for human growth and change. These skills are often referred to as the 4Cs: critical thinking, creativity, collaboration, communication:

- **Critical thinking:** This is critical to succeed in both business and science. It allows us to think outside the box and create our own ideas.
- **Creativity:** It is the key to innovation. Creative thinkers can see things from different perspectives. These skills can help us solve more complex problems with greater ease.
- **Collaboration:** This may be the most difficult skill to master among the 4 C's. But, once we learn to work with others, we will learn to compromise and get the best results from cooperation.
- **Communication:** Effective communication is very important to build lifelong relationships with other people. Employers value good communicators who can approach people with different personalities.

Digital and Information Literacy

There is no doubt that social media and technology have become an integral part of almost every aspect of life today. This skill set is essential for people to create and share digital information.

- **Information Literacy:** This means finding, evaluating, managing, and using information effectively in various formats. It also makes it possible to distinguish fact from fiction. Finding valuable information can be a real challenge these days, as the internet is full of misleading content.
- **Media Literacy:** The amount of time people spend online has increased drastically over the past decade, making media literacy an important skill. These skills improve our ability to

analyze, create, and interact with news and online resources. It also allows people to find the most effective ways to create and share information.

- **Technology Literacy:** Technology literacy implies strong skills related to computers, cloud computing and mobile devices. Once we master technology literacy, we will have a basic understanding of how tools work and the opportunity to work as a data scientist.

Life Skills

Life skills allow people to find new ways of thinking and solving problems and develop greater self-esteem. Although students are doing well to improve their grades, many still struggle to acquire these skills. At the same time, life skills are considered as important as academics, and make these skills a huge advantage in getting a job. These are few examples of life skills:

- **Resilience** is the ability of others to adapt to change and uncertainty. Many people find it difficult to adjust to new situations and people. However, flexibility is essential for long-term success in our career and personal life.
- **Leadership** is an important skill for entrepreneurs and anyone who wants to achieve their goals. Leading a team can be stressful, but good leaders are appreciated in all situations.
- **Social Skills:** Communication has never been more important in today's world. Effective communication, empathy, and active listening can contribute significantly to success.

Key Features of 21st Century Skills

The role of 21st century education is to help every student learn to learn. Modern learning encourages collaboration, inspires creativity and values critical thinking. It teaches students how to understand the unlimited flow of information and use it wisely. By equipping students with these key skills, 21st century education helps them thrive in the workplace.

Perspective taking: The ability to understand another person's perspective and see the world through other people's eyes is useful for all kinds of social interactions and relationships. For example, students may ask themselves, "What is life like for that person?" and "How can I relate their experiences to understand their feelings?" In this way, they will begin to expand their horizons and their ability to solve complex problems.

Critical Thinking: Critical thinking skills can deepen students' academic learning and are useful for successful interactions and relationships. Critical thinking helps students determine whether all the pieces of the story are present or how to learn the difference between assumptions, attitudes, and facts with an open and curious mind.

Respectful Communication: The ability to actively listen and communicate respectfully to others can help students build strong relationships and deepen their learning in discussions. It is an essential skill for working in a multilingual and multicultural environment, both in the classroom and in everyday life.

Collaboration: Working well with others is a key life skill for students to develop as they learn to transition into relationships in the classroom, home, and ultimately the workplace. When students collaborate, they must consider each other's perspectives and experiences, playing unique roles to achieve a common goal.

These skills are ultimately fundamental to creating a greater sense of empathy in our classrooms. Other 21st century topics such as worldview, creativity and innovation, problem solving and collaboration expose students to different ways of thinking and different cultures. The term 21st century skills includes many knowledge, skills, and character traits that educators, employers, and others consider necessary to succeed in today's world. The list of 21st century skills includes critical thinking, collaboration, leadership, and many other skills needed in collegiate programs and the modern workplace.

How to Develop 21st Century Skills?

Not all schools and colleges teach modern skills to students. Fortunately, there are ways to learn this skill ourselves. If we want to improve our 21st century skills we may take the following steps:

- Prioritize the skills we want to develop. It is good to progress step by step. We should focus on one skill at a time to master it. We need to invest time in research and practice.
- Ask others for feedback. Self-expression can be difficult for some people because we are not usually the best judges. It is a good idea to ask friends, classmates, or colleagues to point out our strengths and weaknesses.
- Step out of our comfort zone. New experiences can bring life's most valuable lessons. If we want to discover new things about ourselves, we should say yes to the opportunities that come our way.
- Be aware of new technology and media. Using different media and technologies can significantly improve our digital literacy. Fortunately, there are many online courses available.
- Take a leadership position. We may feel pressured at first, but our confidence will grow over time. Taking on leadership positions, even if temporary, will improve our interpersonal and management skills.

Here are some key features of 21st century learning:

- The goal is to develop students' creativity. The more complex the world, the more people have to deal with its challenges.
- This is a unique identity. In today's society, people value individuality and authenticity. 21st century education takes a unique approach to each student.
- Using technology. Books are the main source of information for people. However, today we can develop 21st century skills with the help of workshops, online courses and even YouTube.
- Value of student progress. 21st century learning is not about memorizing information to get students an A+ on their assignments. The modern education system follows the idea that standard score averages should not measure student achievement.

Conclusion

Undoubtedly, today's youth will interact with many different types of people as they grow older, and the ability to interact, collaborate, and learn from different people will benefit them. Exploring

different perspectives encourages creativity and innovation by introducing new ways of thinking that can improve team problem solving. The ability and willingness to learn from others with different perspectives can help in communicating complex ideas and resolving conflicts. Having positive early experiences with different types of people can affect how children develop later attitudes towards others. As students develop skills such as critical thinking and perspective taking, they will be more flexible and adaptable in our ever-changing workforce, develop cross-cultural skills, and take on leadership roles.

In the face of future development and changes in society, the ability to solve problems is one of the main skills of the 21st century, emphasizing the ability of students to identify problems, think critically, and solve problems. For example, in the reviewed studies, scholars have focused on students' problem-solving skills in language learning supported by virtual technology (Chen et al., which is an important part of language skills and an integral way for students to develop speaking skills (Chen et al. Harmer, 2007). Researchers are now paying more attention to the previously neglected skills and focusing on the role of technology-supported language learning in facilitating students' grammar skills. For example, Lai (2017) noted that students' grammar skills improved after completing the task of creating vocabulary lists and greeting cards using multimedia resources. Ugung et al. (2019) explained that students' grammar skills increased by correcting each other's pronunciation and grammatical errors through video chat. Jamalai and Krish (2021) found that students' grammar skills increased through online forum discussion and knowledge sharing.

Like any standard or learning skill, 21st century skills require continuous practice. As teachers, we can support our students through short quizzes and exercises about the existing curriculum. Teaching social skills such as critical thinking and collaboration should not take away academic skills, we can start with short exercises at the beginning or end of our lesson and go from there. In terms of 21st century skills, communication and collaboration have attracted the attention of researchers. Perhaps the society of the 21st century is becoming more globalized and associated with personal communication and collaboration and the complexity of related activities. The 21st century society emphasizes teamwork skills, so academia should focus on collaborative and communication skills. Problem-solving skills have received little attention, and research has not focused adequately on career and life skills.

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A STUDY ON INITIATIVES TOWARDS RECYCLING OF ORGANIC WASTE MANAGEMENT

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Abstract

The objectives of this paper is to study the recent practices related to the organic waste recycling initiatives taken in Chennai for human welfare by reducing land files. This paper is grounded on secondary research. Existing records and data related to waste management and recommendations of planners/NGOs/consultants/government accountability agencies/key industry experts/ for improving the system are studied. This paper tries to bounce the knowledge about recycling significance of organic waste management initiatives in Chennai and also few recommendations for the scope of improvement in the management of organic waste for the welfare of the society. This paper tries to understand the important of recycling significance and also the role played by the government and private institution engaged in waste management. This work is original and could be further extended.

Keywords: India, Recycling, Waste Disposal, Waste Management, organic waste, recycling

Introduction

“There are few things unquestionable in life – one is death, second is changes and the other is waste.”

We cannot stop over these things to take place in our lives. But with better management we can be safeguard and prepare ourselves. Here we will discuss about organic waste management. Each of us has must have clean air, water and food. This privilege can be fulfilled by maintaining a clear and healthy environment.

Waste are unwanted or unusable materials. Waste is any substance discarded after primary use, or is worthless, defective and of no use. Normally, waste is well-defined as the end of any product life cycle and it is disposed as landfills. A landfill site, also known as a tip, dump, rubbish dump, garbage dump, or dumping ground, is a site for the disposal of waste materials. Landfill is the oldest and most common form of waste disposal, although the systematic burial of the waste with daily, intermediate and final covers only began in the 1940s. In generic anything that is unwanted or not beneficial is trash or waste. Though scientifically there is no waste as such in the world. Naturally almost all the components of solid waste have some potential if it is converted scientifically. Hence solid waste is “Organic or inorganic waste materials which is from household or commercial activities, that have lost their worth in the eyes of the primary holder but which may be of greater worth to somebody else.”¹

Since, like all other sectors there is a marked distinction between the solid waste from urban & rural areas. The solid waste from rural areas is more of a biodegradable nature and from urban areas contains more non-biodegradable components like plastics, fibres, glass, e-waste etc.,. The offensive attitude towards solid waste management is however, common in both the areas. Generally, ‘***making garbage out of sight***’ is the commonly followed practice all over the world.

Generating of organic waste is inevitable in every habitation. Since the emergence of civilization, human race has gradually deviated from nature. Today there has been a drastic

change in the lifestyle of every individual which has been reflected in quantity of garbage that a community generates. Now a days this scenario is, dispose the waste or reuse the waste and can earn money through proper management.

Solid waste management (SWM) is a main issue for many urban local bodies (ULBs) in India, where urbanization, industrialization, and economic growth have resulted in increased municipal solid waste (MSW) generation per person. Actual SWM is a major challenge in cities with high population density. Achieving sustainable development within a country experiencing rapid population growth and improvements in living standards is made more difficult in India because it is a diverse country with many different religious groups, cultures, and traditions.

However, land filling is still the dominant solid waste management option for many other countries like India around the world. It is well known that waste management policies, as they exist now, are undergoing drastic change to offer more options that are more sustainable.

The purpose of this paper is to gain knowledge in benefits of segregation of waste and recycling. This paper outlines a step forward taken by an educational institution in Chennai, which is being pioneer in educational institution, manage solid waste management with joining hands of GCC, greater Chennai corporation.

Classification of waste

There are many distinct sorts of garbage, including household waste, industrial waste, oil industry waste, e-waste, construction waste, agricultural waste, food processing waste, bio-medical waste, nuclear waste, and slaughterhouse waste. It is divided into dry waste(biodegradable) and wet waste (Non-Biodegradable) and also Domestically generated hazardous and non-hazardous trash.

- Solid waste- vegetable waste, kitchen waste, household waste etc.
- E-waste- discarded electronic devices such as computer, TV, music systems etc.
- Liquid waste- water used for different industries, tanneries, distilleries, thermal power plants
- Plastic waste- plastic bags, bottles, bucket, etc.
- Metal waste- unused metal sheet, metal scraps etc.
- Nuclear waste- unused materials from nuclear power plants

Biodegradable

- Kitchen waste including food waste of all kinds, cooked and uncooked, including eggshells and bones
- Flower and fruit waste including juice peels and house-plant waste
- Garden sweeping or yard waste consisting of green/dry leaves
- Sanitary wastes
- Green waste from vegetable & fruit vendors/shops
- Waste from food & tea stalls/shops etc.

Non-biodegradable

- Cardboard and cartons
- Containers of all kinds excluding those containing hazardous material
- Packaging of all kinds
- Glass of all kinds
- Metals of all kinds
- Rags, rubber
- House sweeping (dust etc.)
- Discarded electronic items from offices, colonies viz. cassettes, computer diskettes, printer cartridges and electronic parts.
- Discarded clothing, furniture and equipment
- plastic, Foils, wrappings, pouches, sachets and tetra packs (rinsed)

Waste management in India

Due to an expanding population, Indian towns and cities are growing every day. In both urban and rural areas, the population growth and improved quality of life lead to an increase in the production of solid waste. With an annual growth rate of 4.25 percent, the amount of solid waste produced annually in Indian cities has increased from six million tonnes in 1947 to 48 million tonnes in 1997, and it is anticipated to reach 300 million tonnes by the year 2047²

The Waste Management and Handling Rules in India were announced by the Ministry of Environment and Forests (MoEF)

Waste segregation at source should be mandatory. Domestic hazardous waste, dry waste (such as plastic, paper, metal, and wood), and organic or biodegradable garbage are the three waste streams that must be separated by households

Indian Government Initiatives

- Swachh Bharat Mission.
- GOBAR-dhan (Galvanizing Organic Bio-Agro Resources) Scheme.
- Jal Shakti Abhiyaan.
- Waste to Energy.

Following this national consolidated effort for systematic and total waste management came into common consciousness, many cities and towns in India had already launched individual efforts directed at municipal waste collection of segregated waste, either based on citizen activism and/or municipal efforts to set up sustainable systems. Implementation of SWM projects is periodically monitored by the SWM committees formed in each of the villages.

Disposal of Solid Waste

Most towns and cities dispose of their trash by dumping it outside of the city in low-lying areas. According to the Planning Commission's 2014 study, over 80% of the waste that is collected in India is thrown out carelessly in dump yards, endangering both human health and the environment. In India, garbage is regularly disposed of using landfill technology. However, because they lack foundations, liners, levelling, cover soil, leachate control, and treatment facilities, dumping sites are frequently unsustainable as landfills. According to research, the majority of the nation's landfills have reached their capacity.

Adopting recycling using this technology can greatly minimise India's dumping. Utilizing this method more frequently "would limit disposal to land and generate clean, reliable energy from a renewable fuel source, lowering dependence on fossil fuels and cutting Greenhouse Gas (GHG) emission."

Micro Composting Centres (MCC):

Solid waste continues to pose problems in urban, peri-urban and village panchayats which have increased per capita waste generation. Micro Composting Centres (MCC) have been suggested as a decentralised method of handling such waste to address this. Micro Composting Centres (MCC) are set up in the 2019–20 academic year. Additionally, the compost produced by MCC is a biodegradable waste that is used by corporations and municipalities for activities such as tree planting, adoption under MGNREGS, and vermin-composting.

Waste management in Tamilnadu

There are 528 Town Panchayats, 124 Municipalities, and 12 Corporations in Tamil Nadu. 14,600 Tonnes of solid trash are produced daily in total.

According to Tamil Nadu State Policy on Solid Waste Management, All 135 ULBs efficiently carry out Solid Waste Management tasks like source segregation and door-to-door collection, transportation, and processing of Solid Waste using battery-operated vehicles (BOVs), light commercial vehicles (LCVs), and other equipment. In Decentralized Micro Compost Centres (MCCs) and Onsite Composting Centres, the Wet Fraction of Solid Waste is processed and disposed of scientifically (OCCs),

Waste management in Tamilnadu

Solid Waste Management Department in greater Chennai corporation

- Headed by a Superintending Engineer, the department looks after clearance and management of solid waste which is a major responsibility of the Corporation. Every day around 5400 MT of garbage is collected from the city. Night conservancy is also being carried out in all bus route roads and Markets / commercial areas of the city. Door to door collection of garbage is done in all zones.
- **Primary Collection**
- Sweeping, collecting, and storing the waste in the specified bins.
- Door to door collection of garbage

- Collecting the Source Separated Waste from the Households by Tricycles or Light Motor Vehicles and bio degradable waste is being sent to decentralized waste processing facilities and dry waste is being collected every Wednesday for recycle purpose and remaining waste to transfer Stations/dump sites
- **Secondary Collection: (Transportation)**
- Street collection to disposal site.
- Transportation to disposal site from transfer station.
- Collecting the Source Separated Waste from the Households by Tricycles or Light Motor Vehicles and bio degradable waste is being sent to decentralized waste processing facilities and dry waste is being collected every Wednesday for recycle purpose and remaining waste to transfer Stations/dump sites
- Waste Disposal

At present Garbage generated in Chennai is dumping at two land fill sites and construction and demolition waste is being used for covering each layer of garbage in two dump sites.

➤ **Best Practices**

Various initiatives are taken by Greater Chennai corporation and NGOs and locate the scope for improvement in the management of waste.

- ✓ Collection of Solid Waste at Source

Collection of Municipal Solid Waste at source (Door to door collection) has been implemented in all Zones. About 95% of the households were covered under this programme. This has been achieved only on introduction of Tricycles/ battery vehicle which stands as a wonder tool for better collection of MSW at door steps.

- ✓ Tie up with educational institution

As a educational institution, feeling more responsible towards, environment, people and country we Shri SankarlalSundarbaishasun Jain college have initiated by adopting a MCC unit in Kannamapet burial ground and started to recycle organic waste. Ans also students started many camping with local people for creating awareness about segregating waste.

Vision of this project

To produce quality compost and rejuvenate the mother earth

Mission of this project

By creating and disseminating knowledge in solid waste management to students by providing unique learning and experiencing in SWM process.

History of the MCC Unit

Chennai city generates 5000 tons of mixed waste every day and most of the waste is not managed properly. Greater Chennai Corporation established micro-composting units in multiple locations in the city to compost the organic waste. However, some of the micro-composting units are



not functioning properly due to various challenges. One such micro-composting unit is in the Kannamapet burial ground.

Urbaser Sumeet is the waste management and recycling collection unit which is in operation in Greater Chennai Corporation. The garbage collected from households is dumped in MCC units in burial grounds across the city. In an effort to work hand-in-hand with GCC and provide a viable solution to the humongous task of recycling of solid waste, **Shri Shankarlal Sundarbai Shasun Jain College for Women** signed a contract with Greater Chennai Corporation to setup the Multi-composting Centre (MCC) at Kannamapet Burial Ground, T. Nagar in June 2021.

The College undertakes the end-to-end process of collecting the wet waste from Urbaser Sumeet, processing the waste in the MCC to produce organic fertilizer. Since it is situated near Ranganathan Street, daily 1 tonne (App) of wet waste is being collected for the process.

The project is confined to organic waste only. Urbaser Sumeet will deliver the organic waste at the MCC on or before 12 noon. The college procured all the machinery for the MCC unit.

PURPOSE & PRIORITIES OF THE INITIATIVE:

OBJECTIVES:

1. To implement a sustainable solution to solid waste recycling and management.
2. To engage students in this project to provide hands-on experience and learning.
3. To help GCC in the humongous task of recycling the waste collected on a daily basis from households.
4. To operate the micro-composting facility seamlessly and produce compost effectively
5. To provide a source of organic fertilizer for the farmers which is cost-effective and sustainable
6. To donate or sell at optimal pricing to farmers the compost harvested.

PERIOD/DURATION

Shasun Jain College, obtained permission from Greater Chennai Corporation, from October 2021 to run the unit.

- The project was initiated in June 2021 and became functional in February 2022.
- The first harvest was on 12th April 2022.

- The project is ongoing and contract will be renewed annually with GCC.

Key Stakeholders and their roles and responsibilities:

The scope of the project is to build this unit as a **Model MCC** which is self-sustainable with a capacity to handle the garbage load received in the ward / zone and cater to the requirement of organic compost for the agricultural land around Chennai. The beneficiaries are the general public and farmers, specifically.

- **Shasun Jain College**

The College adopted the MCC unit in Kannamapet from GCC for processing compost by collecting waste from Urbaser. To reduce environmental pollution, reduce the amount of landfills, and create employment opportunities for underprivileged community.

Currently, 50 students are involved in the project. Additionally, around 100 NSS students of the college participated in a rally and collecting plastic waste on the streets. They created awareness among the general public on significance of segregation of waste at source.

- **Greater Chennai Corporation**

GCC taking initiatives to promote composting through its micro composting units across the city, since it significantly cuts down the amount of trash in a landfill and reduces the carbon emissions composting enriches the soil with nutrients, which reduces the need for fertilizers and pesticides.

- **Urbaser Sumeet**

UrbaserSumeet is a leading environmental managing company,undertakesolid waste management through an eight-year contract in the Chennai city. They provide wet waste to MCC unit, by collecting it from twowards (136 &141) in T.Nagar area. As a service provider, it is creating awareness of segregating waste among the public.

- **Residents of the Specified Wards**

Residents of the two wards should be aware of segregation of wet waste, dry waste and hazardous waste at source while disposing from their households. They should discard the waste safely and properly in the waste bins or to the garbage collector.

The impact of this project

Sensitize the neighbourhood and students on:

- a. Segregation of waste
- b. Quality Compost
- c. Earth Rejuvenation
- d. Sensitization in segregation & environment consciousness
- e. Entrepreneurial opportunity

The operations of the unit are carried over by the staff & students of Shri ShankarlalSundarbaiShasun Jain College for Women by engaging the labourers. They have associated with an NGO for expert advice in process the compost.

PROCESS

✓ STEP 1 - COLLECTION OF VEGETABLE WASTE

In this process the compost waste such as vegetable waste, fruit waste and garden waste from the Market in Ranganathan street, a big retail hub in T.nagar near to this unit, which are being collected by the urbaserumeet's labours and dropped in this micro compost centre[mcc] .



The urbaserumeet, an environment management company is taking charge for seven zones in Chennai. They are collecting waste in battery vehicle in every street by collecting door to door and also in markets. They segregate the waste into compost waste, medical and hazardous waste and biodegradable waste etc., and drop the compost waste in these Micro composting units for processing waste to energy process instead of dropping them in dumpyards

In this unit this waste is collected from urbaserumeet's labours by the sanitary workers of this MCC unit by weighing and deposit them in compost waste collecting zone. Approximately 1 tonne of waste is collected daily from urbaserumeet.wast

✓ STEP 2 - PULVERIZER



- The next step in this process is preparing brown material from the coconut shell and dried garden waste. This is prepared to manage the excess of moisture produced during the compost process, since vegetable waste and fruits waste are used in the composting process which will push out a lot of water bodies. The brown waste such as coconut waste and garden waste that

are being collected by the sanitary workers from the urban refuse and labourers. and chop into small pieces. For this, they are using a machine called PULVERIZER. It helps to chop the coconut shells and leaves into fine particles.

✓ **STEP 3 - SHREDDER**

The next step in this process, is all the compost vegetable waste and fruit waste and the brown material [coconut waste and garden waste] must be mixed and chop up into fine pieces mixing with microbial component.

For this they are using the machine **SHREDDER** primarily the sanitary workers using waste pickers they mixed the Brown waste and the compost waste in the ratio of 30 : 70 along with microbial component called inoculums and loaded into conveyor belt.

This conveyor belt carries this mixture and drops into the shredder machine for mixing and chopping. The shredder machine chops all the materials using its blades and drops them through the outlet. From here it is collected to next zone using trolleys.

✓ **STEP 4 - WINDROW COMPOSTING ZONE**

The next step in this process is, after finely mixed and chopped the compost to be dried. After the process got over in shredder machine, the mixture is being collected and brought out using a trolley to the windrow composting zone. It has been dropped and dried in this zone by piling up them in rows and mentioning the dates in the board hanging. The dates mentioning process is one of the criteria to check the maturity of the compost.



✓ **STEP 5 - DRYING**

The next step in this process is called Drying.

In this process the mixed materials are being piled up into rows in the windrow composting zone for drying. It is turned up and down by the sanitary workers thrice a day from three weeks from the day it has been piled up. In this stage, maggots are found in the compost piles. Maggots, they are soldier fly larvae. They won't hurt. These larvae play a role in breaking down and recycling nutrients back into the soil. It will help to accelerate the composting and make sure it is ready for the next stage.

In this stage the compost needs air flow so the compost is turned up and down by the sanitary workers and also by sprinkling the cow urine. This also helps workers to convert this mixture into

to compost and maintain the moisture. They make sure that materials in the centre are brought to the outsides and material from outside edge are brought to the centre.

In this stage they are monitoring the compost using compost thermometer to check the degree of heat to check the moisture and also to avoid fungal formation inside the piled compost. Following this stage, the rows are being segregated and combined as 1+1 after 3 weeks from the days mentioned in the hanging board. Again, it is turned up and down by the sanitary workers in daily basis

After 4 weeks, it is brought to the pits inside the MCC unit again to dry but with little moisture inside by the sanitary workers. After 6 weeks, it is dried with 5% of moisture and transferred to next zone.



• STEP 6 - SEVING

In this process they are separated stone, lumps and weeds ryzomes from the composed materials using the **seving** machine and get fine organic compost. In this unit, sift is done by shasun ENACTUS students along with the sanitary workers. It always necessary to sift the compost before packing for sales or before spreading in the soil. It makes better quality organic compost without lumps and clumps. Sifting also aerates the compost improve the soil structure of the farming beds and also improve the texture of the soil.

This compost enriches soil helps retain moisture and suppress soil diseases and pestst also engarage production of beneficial bacteria and fungi, which helps to get rich nutrient filled material.



Shasunmanagement believes that customers are the real owners of their product. So they wants their customer to use only quality organic compost and get satisfied.

• STEP 7 – PACKING

The final product are being packed and sold to the farmers for agricultural purpose and also to the general public. In the shop they have build inside their college campus. For selling they are using websites also

FINAL COMPOST

PROCESS FOR 17. 2.2022 TO 25.10.2022.

MONTH	WET WASTE	DRY WASTE	TOTAL COMPOST PRODUCED
February	5497	1650	1429.4
March	22682	7720	6,080.4
April	15590.3	6384	16,867.1
May	21869	8446	6,063
June	5730	1814	1,508.8
July	7340	2022	7,744
August	12577	4480	3,411.4
September	16,174	6,830	4,600.8
October	21,690	10,160	6,370
November	20650	9150	6605
December	21869	8446	6,063
GRAND TOTAL	171668.3	67102	97445.5



ENACTUS SHASUN _Students teamon inauguration day 12/4/21

Honourable Thiru. M. Subramaniam, Health and Family welfare Minister,
Honourable Thirumathi. Priya Rajan, Mayor, Greater Chennai Corporation, Thiru.

KakandeepsinghBedi, I.A.S, Commissioner, Greater Chennai Corporation, Thiru. Mayilai T. Velu, Chennai South-west District Secretary, Thiru. J. Karunanidhi, M.L.A, T.nagar, Thiru. M. Krishnamurthi, Councillor, and Ward members Thiru. Ezhumalai and Thiru. Raja Anbazhagan.

Suggestion

- ✓ Waste management is important and make **Waste segregation at source as mandatory**.
- ✓ as it saves the environment from the toxic effects of inorganic and biodegradable element present in waste.
- ✓ Mismanagement of waste can cause water contamination, soil erosion and air contamination. Waste can be recycled if collected and managed efficiently.
- ✓ In order to keep as much material out of the landfill as possible, it's important for each of us to do our part. One of the ways to put that plan into action is through the 3 Rs of waste management — **Reduce, Reuse, Recycle**.

Conclusion

- ✓ People must be educated about Environmental pollution and awareness
- ✓ Community must be given responsiveness about segregating the different types of waste before dropping into the urbasersumeet bins.
- ✓ people must learn about how the waste is handled, the uses of converting the organic waste to compost and also the uses of organic compost to the farmers and the gardeners and also general public.
- ✓ The conservancy workers on the ground must be trained to accept ONLY segregated household waste and carry it in separate bins to the vehicles that will take the waste to the nearest transfer station

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MASS BURNS MANAGEMENT IN DISASTERS

Dr. Nirmala Ponnambalam

Former Professor and HOD Department of Burns, Plastic and Reconstructive Surgery

ABSTRACT

Forces of nature, accidental or intentional explosions can cause mass casualties, including burn injuries. Terrorist activities and wars have added to the manmade casualties.

Depending on the cause, site and magnitude of such occurrences, the casualties can have varied incidence of burn injuries.

Whatever the cause, burn management in disasters requires a well-organized response by a team of specialized staff trained to effectively manage such contingencies. This also includes being effectively equipped with resources.

Rescue work during the chaos phase is one aspect of management. Structured response to mass casualties with burn injuries during disasters can save lives.

KEY WORDS – Disasters – mass casualties – burn injuries – management.

Mass casualties – can occur due to several causes –

Natural causes – like earthquake, storms and cyclones, forest fires etc.

Accidental causes – like explosions, which could be industrial, in gatherings, short circuits.

Intentional – due to terrorism, wars etc.

These can occur **indoors** as in apartment buildings, schools, factories, malls, cinema halls, or anywhere **outdoors**.

‘BURNS DISASTER’ – is a catastrophic event, where the number of burn victims exceed the **capacity of local burn centre** to provide optimal care.

This capacity depends on availability of beds exclusively for burn patients, surgeons trained to care for burn victims, nursing personnel, equipments, supplies, related resources and manpower.

‘Surge capacity’ is the capacity of the centre to handle – in a disaster – 50% more than the normal maximum number of patients who can be accommodated and cared for in the centre.

Information and communication are the most important aspects to be maintained during such disasters. This includes communicates to the administration, relatives, media and daily updates. The initial chaos is, thus, replaced by detailed and accurate account of the event, to mitigate general alarm,

Documentation should be meticulous and updated regularly – for medico-legal purpose and burn data entry registry maintenance.

‘Preparedness’ is crucial. The burn centre is equipped for this – with specialized staff, multi disciplinary team and resources – for optimal management of burns, leading to improved survival rate. Initial management plays an important role in the ultimate outcome. Being prepared also includes experienced and skillful management of the judiciary, disturbed relatives and occasionally emotional mobs.

TRIAGE – by ‘**START**’ – Simple Triage And Rapid Transport.– decide on urgency of medical procedure required and distribution among available centres. The motto is to do the best for as many as possible.

TRIAGE staging is by ‘colour coding’ – GREEN for delayed, YELLOW for urgent, RED for immediate, BLUE for expectant and BLACK for dead.

Green are managed as the ‘walking wounded’ – which include less than 20% burns in adults and less than 10% in children, without involvement of hands, face and perineum, without co-morbidities like diabetes, epilepsy etc. They are treated as out – patients.

More than 20%, or less percentage with involvement of face, hands and perineum, inhalational burns, circumferential burns, chemical or electrical burns, with pregnancy, with co- morbid conditions, less than 5 years or more than 60 years of age – are admitted, monitored and managed accordingly – isolation to avoid cross infection, resuscitation, wound management and dressing, pain relief, nutrition, antibiotic policy and surgical intervention when indicated.

TRANSPORTATION plays a crucial role in transporting these people to various centres. Ground transport is most commonly used, ideally for distances less than 120 kms. We have our own 108 ambulances. Air transport is used for long distance, frequently helicopters, to expedite transfer. Transport team should be trained to provide ICU level care. Burn patients withstand travel better, when their haemodynamic and pulmonary stability are achieved by resuscitation.

PHYSIOTHERAPY, REHABILITATION and post burn follow up, with management of post burn sequelae, are integral of burn care.

In our country, INDIA, **NPPMBI**– National Programme for Prevention and Management of Burn Injuries has been promulgated, with wide reaching efforts to create awareness regarding prevention and preparedness to deal with such exigencies.

The **State health society of Tamil Nadu**, functioning under the purview of **National healthmission**, has included BURNS as one of the pillars in **TAEI** – Tamilnadu Accident and Emergency Initiative. Through this programme, burns management is standardized throughout Tamil Nadu. – at varying level, to ensure reduction of morbidity and mortality, by providing quality care to burn patients. Throughout the state, Standard Operating Protocol (SOP) has been implemented, for the management of burns –

- At the scene of burn incident
- At 108 (ambulance)
- At Primary Health Centre level
- At District hospital level
- At Tertiary level care

To highlight some features for general awareness –

At the scene of burns –

Follow **STOP, DROP** and **ROLL** procedure, for person on fire. **STOP** the person from running around, **DROP** him on the floor gently and **ROLL** him on the floor.

For electrical burns, make sure that the power source is switched off before approaching the person.

Waiting for transport –

Cooling by pouring clean water on the burn wound. Avoid applying ice on the burn.

While transporting –

Resuscitation with fluids as per protocol (Intravenous line), oxygenation, cover burn wound with sterile dressing.

At the centres –

Assessment of body surface area (BSA) and depth of burns, resuscitation, investigations, pain relief, requisite treatment etc.

To conclude –

To deal effectively and efficiently with a situation involving mass casualty, burn centres should have an operational disaster plan. They should be prepared to provide optimal burn care during natural or manmade disasters.

SKILL DEVELOPMENT UNDER CSR

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ABSTRACT –

A nation's economic development rests on robust industrial development dovetailed with skilled workforce. In general, barring few Asian countries, others are limping towards attainment of developed status.

The major attributes are – over dependency on agriculture and rural industries, which are well complimented by unskilled labour work force.

To transform the status and to achieve the SD goals, every nation has formulated different strategies. Inter alia measure is empowerment through livelihood program laced with constant industrial growth. The FDI is one of the critical component which ensures industrial growth engine, but is directly proportionate to ease of doing business and availability of skilled workforce. As a part of sustaining the industrial output and the dynamic nature of technological advancement, industries need to be well ahead in race, spend money under CSR. This is made mandatory i.e. 2% under sec.135(1) of companies act of India.

Unfortunately big ticket companies spend this amount under health, education infra etc, whereas major chunk of it can be earmarked for skill development of the working age group, which will be beneficial to industry and youth as well. Funds from CSR may be apportioned for short term skill development as per NSQF. The establishment of MSDC (Multi Skill Development Centres) in urban/ semi urban areas, for easy accessibility, for aspiring youth. The sectors may be apparels, furnishings, automotive, logistics, BFSI, construction, fintech, media and entertainment, health, IT – ITES. These are growth engines of all the countries.

The MSDCs should follow the standards of vocational skill qualifications framework. The experiences gained by Tamil Nadu Government can be very well modeled with due tweaking to suit local needs. While doing so the strength of the provinces may be identified and accordingly short term training may be implemented. Another important component is re-skilling. One has to ensure that gen next technologies like AI-ML, IOT is embedded in formal education.

Keywords – working age group – SD goals – MSDC – NSQF – reskilling – fintech – BFSI

PAPER -

Skilling can be traced from stone age, when man trained himself to sharpen the stones to kill the animals for food. The transformation into a material life came with the invention of a wheel, with the stages well punctuated by iron age and the pastoral life. The pastoral life, full of agricultural knowledge, refined the quality of life in every century. Even in 21st century, it is at centre stage.

The manifestation of agricultural knowledge is to the advent of tangible equipments, production and storage facilities for better times. This was followed by construction, navigational equipments trade and finally war. Each of these aspects involves specific workforce pertaining to particular activity. The acquired skills are passed on to generations with perfection at every time frame.

The existence of skills to manufacture non rustic iron pillar 2000 years ago stands testimony for this. The age of industrialization, during the 15th century, slowly transformed and also started erasing the manual skills which were acquired over the centuries. The machineries were produced at a cheaper rate and in lesser time. The change made it inevitable for people to adopt technology by learning to do the same. What was once man - machine interaction, now stands at disruptive technology like Ai & ML induced operations.

The after math of the industrialization is the growth of science & technology which resulted in study of various subjects for a gainful employment at every part of the globe. Those countries which encouraged technology has climbed up the ladder and attained the developed country status. In the name of technical and economic supremacy, these countries made others as a supply chain base. Illiteracy, poverty and exploitation became the result of this

The right to new economic freedom happened only in the 2nd half of the 20th century, but even then there is a marked imbalance between regions within and outside countries. To have a level playing field, countries plan to put in place equal opportunities for all by offering education either free or at affordable cost, in under developed countries. Unfortunately the present system of education is churning out graduates, who are fit for clerical level only. The technical and scientific education took back seat.

This has resulted in unemployment and social unrest. To tide over the situation, some countries gave importance to technical education, but due to stagnant industrial growth, technically qualified people are either under employed or employed in non technical areas for the sake of livelihood.

Hence importance was given for vocational education. In Tamil Nadu the history of vocational education can be traced back to later part of 19th century, when industrial schools were started, offering basic training in carpentry, welding, turning, sheet metal work etc. When large scale industries grew, the incremental absorption of skilled workers proportionately increased. But blue collar workers were looked down upon and they ultimately became a class of their own.

Indian context

Regional imbalances have come to fore front. Handful of the states have robust growth oriented planning and policies, which resulted in rapid industrialization and stood out from the rest. They are Tamil Nadu, Maharashtra, Karnataka and Gujarat. On the other hand, majority of the states are still lingering over growth oriented policy framework. So they are only supplying unskilled labour force.

Aspiration level

The aspiration level in these states, including Kerala, is very high. They would like to position themselves in level 4 and thereafter in skill qualification framework. This is resulting in heavy influx of migrant labour force from other states to fill the gap created. Internal migration from rural to semi urban and urban areas is one such issue causing social tensions stress in urban infrastructure. The well educated and also those who possess technical skills migrate to other countries for greener pastures, thanks to national institutes like IITs, NITs, IIMs, AIMS etc.

The Indian skill canvas almost reflects in many Asian countries. To tide over the situation, the UN has formulated the MDG and set a target date of year 2030. All out effort is needed to achieve

this within the stipulated time. More than 190 countries have accepted to adopt the programme.

Inter alia the SD goals, the two SDGs - 4 and 8, are either directly or indirectly related to skill development. They are

SDG4

By 2030, to substantially increase the number of youth and adults , who have relevant skills including technical & vocational skills for employment, decent jobs and entrepreneurship.

SDG8

Promote inclusive and sustainable economic growth, full and productive employment and decent work for all.

As a part of responsible investment by the institutional investors the ESG (Environmental, Social and corporate Governance) which is the prelude of SDGs, the UN formulated SDGs for universal adaptation . in the meanwhile unexpectedly the pandemic, which engulfed the world in 2020, left millions of children out of school and brought down the labour force to its knees. This number has doubled after the pandemic in India. The world is still limping back to normal or created a new normal. The Indian government already took a positive step to channelise the funds for result oriented action. The provision Indian companies act under 135[1] envisages CSR committee, which stipulates 2% of the profit should be earmarked for CSR activities.

The question of why skilling under CSR is required comes to fore front in India. Every year, around 1.4 billion youth enter the labour market and providing tangible employment to them is a herculean task. Major issues in match making is the absence of appropriate skills, which the industry looks for. Only around 4% of the Indian youth in the country are skilled .This hampers the industry's growth and leads to concentration of industries in few states only and not evenly distributed. Resulting attribute is formulation of livelihood programme among the marginalized community and empowerment of women to spur growth uniformly.

All the provincial Government have engaged themselves in formation of SHG [self help group] for women and micro financing them to beneficial growth oriented programmes. But major lacuna is lack of appropriate skills pertaining to cottage industries and application of required technology. Hence the NULM [National Urban Livelihood Mission] SRLM (State Rural Livelihood Mission) are formulated to bring back people from poverty and to have a decent livelihood in India. These programmes are implemented by Ministry of Rural Development.

MGNREGS - The Indian government has initiated the largest livelihood programmes in the world, in 2005.i.e. Mahatma Gandhi National Rural Employment Guarantee Scheme. A national programme which is conceived to snatch people from the claws of poverty in the rural areas. It is a 100 day programme in a calendar year, for which they are paid .Through this infrastructure development activities - in the fields of agriculture and in its related activities, afforestation, water management, rural roads etc are carried out .The Panchayats are engaging them to carry out the above said activities within their limits. This is the largest direct cash transfer scheme in the world with such magnitude. By injecting cash at the rural level, people are benefited .The cash which spirals from lower level to top benefits everyone. There by the rural economy lifted marginalised people from poverty submergence. The budget allocation for MGNREGS for the year 20-21 is 1,11,500/- crores, at revised estimate. The same year 6.51cr people were provided

employment, 130.9cr man days were generated. This programme is implemented in 644 districts of the country and viewed as one of the most beneficial, sustainable livelihood programme on earth.

To add teeth to the programme, a suggestion was put forth considering the magnitude of expenditure and size of people involved. With the qualification they possess, they may be imparted skill development training up to the level of 3, which will strengthen their livelihood and also a certified worker who can very well seek employment in non seasonal days in industrial corridors / industrial parks. The switch over to other employment would be smooth skill based training. Further, it is seen that the productivity under the MGNREGS may substantially increase. The semi skilled work force will be beneficial for the SMEs functioning at rural level and arrest large scale internal migration to urban areas.

GENNXT

It is stated that 40% of traditional jobs which are at present prevailing may not exist beyond 2030. The children who are going to primary school today would land in new age jobs. It is the duty of the state to equip the future generation properly by imparting required skill development to successfully lead the nation. The government should formulate a robust vision and mission to achieve the objective.

At present India is the leader in IT & ITES, automotive, services, health, pharmaceuticals, leather etc. To sustain the position, we need to train the youth in these sectors and also in emerging sectors to become skill capitol of the globe. As the world is ageing the Indian demographic dividend may be capitalized to surge ahead of China.

Considering the backdrop, it is the duty of the corporate to design several strategies. The main focus area should be skill development, by funding and establishing SDCs under CSR.

FUTURE SKILLS

The future of the world rests on the cognitive ability of human performance. Hence frontier areas of research emphasize understanding of cognitive ability. The buzz word of today's industries is Artificial Intelligence, machine learning, IOT, Data mining, Big data analysis, ESDM etc. In the application of industry 4.0 in manufacturing and related fields - India has already established its supremacy over others and is transforming into world leader. Also in the Indian context a synergy has been created between it and its services with the future skills mentioned. In view of this, all the governments and industries constantly upgrade the technology and expect youth to work from day 1. This will become a reality only when the latest technology is embedded in the curriculum or they are adequately trained to undertake such challenges. Here, even though the government takes efforts to empower youth, only the relevant industries can pitch in and train them according to their needs. The governments can play a supportive role only.

The state of Tamil Nadu, a highly industrialized state, which has strong foot holds in IT & ITES, health, leather, automotive, textiles, pharmaceuticals, construction, media entertainment - .to sustain its supremacy, it has floated a skill development corporation, which identifies training partners and aligned the courses with NSQF ([National Skill Qualification Frame work). The common cost norms are followed. It has got annual budget of Rs.200/- crores. Presently to have a multipronged approach, it has identified courses for engineering & polytechnic students for

study as a mandatory course during semesters, there by bringing in the much desired change in curriculum, along with credits. It has also identified another side, wherein large chunk of people are working by experience, without certification, which is called RPL (**R**ecognizing **P**rior **L**earning) is also under taken annually to a tune of more than one lakh people. This also infuses a sense of pride in working class, who have no certification. The population of 8 crore people of Tamilnadu would be a model for emulation.

If the industry wants to sustain its leadership and market presence, they have to join with the government in providing right kind of input by way of sharing technical expertise in framing curriculum for regular supply of skilled work force.

Road Map

The road map would be that of

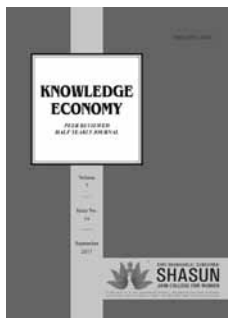
1. Establishment of MSDC (**M**ulti **S**kill **D**evelopment **C**entre) in industrial clusters or in vulnerable areas.
2. Active industry –institution interface in framing the job oriented courses.
3. Regular updation of teaching skills for the academia with time frame industry exposure.
4. Compulsory internship for all technical courses
5. Establishment of industry institution management committee for constant industry input to academia.
6. Periodic industry exposure linked with credits (compulsory for every two years).
7. Stipended programme for students during summer / winter break up
8. Legal support by way of act to engage only skill qualification frame work certified workers in public and private firms.
9. Institutions should have SQF aligned courses only
10. Government level support for students by way of skill vouchers for economically weaker sections .
11. Bank loans on the lines of educational loans for sill courses at affordable installment to students and parents without collateral
12. Advocacy programmes for industry associations to engage only certified workers only.
13. Implementation of minimum wages act without hesitation to attract students for skill development courses.
14. MOUs with MNCs and world leaders in technology for sharing them with institutions to update syllabus every now and then.
15. Compulsory percentage of CSR funds should be allocated for skill development.
16. If need be - skill cess, can be levied to boost adequate funding for skill development.

CONCLUSION

A multifaceted approach is needed to propagate skill development as a means of livelihood. Otherwise the labourers will be exploited by keeping them unskilled /semiskilled, without proper certification, which will hamper their upward mobility as a highly skilled work force which would fetch higher wages. The passing of technical knowledge to sustain the pace of leadership in the industry rests with constant up gradation of skills of workforce by the industry and the government. The government should act as a facilitator here by granting adequate land and fund for infrastructure creation by the industry to have a 'plug and play' model institutions. It should be based on the strengths of the area and the presence of industry cluster. Such centers should evenly spread across the country to ensure mobility among the workforce.

LETTERS TO THE EDITOR

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Articles are very much knowledge oriented and enhance the research skills of the reader.

- Purnimal Iyer

FORM IV

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