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Lecture - 14 ESD for Technical and Vocational Education / Training

Welcome viewers. Today, we will discuss about Education for Sustainable Development that is ESD for Technical and Vocational Education. So, how ESD can be helpful in 21st century technical and vocational education training that we will be discussing and how ESD can be incorporated into this kind of higher education, technical education.

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So, as all of us we know that education empowers us with knowledge, skills and confidence etcetera and so, that is the that is why it is very much required for the for building a green society for a technologically apt society. So, then how; so, because we need you need to put all these sustainable development path in teaching and learning in practice, in internship, in work experience, in the workless everywhere.

So, without education, there cannot be any sustainability; there cannot be any sustainable development. Because sustainable development is a paradigm shift, a shift in our thought

process, it is a shift in our thinking style. So, it cannot be reached only through the technological solutions.

So, sustainable development cannot be achieved through only through technological solution or financial instrument. For that matter, we need to have a paradigm shift, a shift in our thought process, a shift the way people think and act that kind of change is very much required.

So, how to integrate ESD systematically in this technical and vocational education that is of the of paramount interest and importance in nowadays. So, systematically, integrating education for sustainable development that is ESD into all levels of education, all levels of education and training starting from the primary education to the higher education to workplace learning everywhere, how it can be incorporated, how it can be embedded in our curriculum and training programs.

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So, therefore, so, how to prepare, how to prepare for this technical and vocational education, that is most important. So, technical and vocational education and training nowadays you know, it is being emphasized because of the because of developing the skilled manpower and for and various sectors starting from the agriculture to management, to industry to

everywhere it is required very much required; to not only mobilize the resources, but restore the resources and preserve it for the future.

So, now, we are calling that is you know because of this climate change and carbon footprint and all kinds of natural disasters, so now, we are moving towards more green society, more greener products; greener manufacturing green products, green society, green products, green marketing everywhere. So, that is to minimize the pollution minimize the carbon footprint. So, here, we will talk about the green TVET; that means how Technical and Vocational training Education and Training can be provided in the greener form that is with the zero carbon or the minimum carbon footprint.

So, therefore, green TVET that is technical vocational education, it encompass the pre-employment education and training then, learning in the workplace and further training that includes all kinds of educational training, pre-employment training, workplace training, internship everything related to environment, related eco-system, related to our economic related to our social sustainability; everything it is related to but at the same time, we also meeting the needs of the industrial and individual learners.

So, how can we mobilize, how can you modify our TVET technical and vocational education in such a way that it not only address the environmental issues, economic issues and social sustainability issues; but at the same time, also it can meet the needs, requirements of industries and the individual learners and the society.

So, the primary focus of green TVET is that is it to develop the skilled workforce, skilled manpower. So, with that means, who have the knowledge and commitment towards the sustainable development as well as they can also acquire the requisite technical knowledge, technical skills and competencies. So, therefore, green TVET is very much crucial and it is in an in a transition position nowadays and nowadays for from that is from the earlier position of energy emission, intensive economies to the more cleaner and the greener production and service pattern.

So, here again, so how we are focusing on ESD; how ESD can be implemented for the technical and vocational education training and how from there, we are moving towards

green TVET. That means, definitely sustainable green being green going for the greener society is a part of sustainability development.

So, how; so, here how these three things have been embedded; ESD, greener society, more greener products, greener approach towards the business, and technical and vocational education. So, these three components have been blended here. So, now, that means, ESD and TVET you know now the powerful forces that can be helpful for the society.

And for the and to make our citizens more equal ecologically environmentally more responsible citizens and our workers and consumers, they become very conscious about the global challenges, about the global issues, environmental issues and they and so and they how they should behave with responsibility that is not only to meet their needs and requirements, but at the same time, how to meet the global and local challenges.

So, now ESD and TVET and green TVET has become the powerful forces. So, to mobilize the human resources, to mobilize our economical resources and to protect our; to protect our environment for a green ecosystem, for a green business, for a green entrepreneurship, from a for a green consumptions all kinds of thing minimum carbon footprint products.

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So, now, we can talk about ESD and so, here we can say that ESD and green TVET, it complement each other. So, ESD education for sustainable development and the attempt for

the green TVET, it complement each other. So, both these things, they to go together to promote the skill development, employment and to employment it so that we can empower our younger generation and adults to develop the different skills and the and to maintain the work life balance etcetera.

So, therefore, green TVET means more than developing the technical skills for the green employment such as now we are talking about the ecotourism, renewable energy, renewable waste management and developing the soft green skills and also, the you know problem solving enhancing our problem solving skills. And also live life skill education, education for sustainable consumption and lifestyle entrepreneurial learning.

So, green TVET is addressing all these issues contributing towards the environmental, economic and the social responsibilities. How we can discharge, how being the citizen, we can discharge this duties and responsibilities in a minimum you know minimum way that is to create less to minimum waste minimum waste and how this waste can be recycled and minimum impact, minimum negative impact to minimize the carbon footprint and minimize the you can say the negative impact on the society.

So, ESD is at the core of this green skills. Hence, we are talking about the green skills to reorient the education and training at all levels towards the sustainability. So, ESD being a part of the green skills, green training, how it can be embedded in the education and training to enhance the level of sustainability in every domain in education starting from the school education to the higher education to professional training to education to workplace educational environment everywhere.

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So, therefore, we can say technical and vocational education training system plays an important role in equipping our youth our adults and its kind changing our mindset and you can say play an important role in creating the new job opportunities and creating the new employment, decent works and entrepreneurship sustainable entrepreneurship and lifelong learning etcetera.

This is the model we can see. This is a model of step by step guide for the implementation of ESD how it can be incorporated in the institutions. As we can see that the scope of sustainability for TVET institutions is can in terms of green campus, we can focus on the in green campus; how to create the green campus, green curriculum and training, green research, green community and workplace, green the more greener institutional culture and similarly, here implementing the institutional green plants, blueprint; how can we implement it, then planning for the green TVET.

And the step 1 like you can say start with understanding the whole process, clarifying the greening concepts, clarifying the adaptation of the whole institution. Whole institution is approach is that taking the institution as a whole unit not as a part wise that what is not that only marketing part or only production part or only consumption part is will be greener, but

the whole institution approach that is if we take the every aspects of the institution and plan for it, that is called the whole institution approach.

Adopting a whole institution approach, engaging every teams and engaging every teams, then slowly towards moving towards its planning and execution planning and execution. In the at planning stage, these are the works like raising the awareness, raising the awareness, formulating the rational, assessing the current realities, everything that is the step 2 fair. Then, step 3 that is implementing this institutional green plan, when we are going to actually execute it in consolidating and embedding it in the core system. Then, institutionalizing the change and celebrating it.

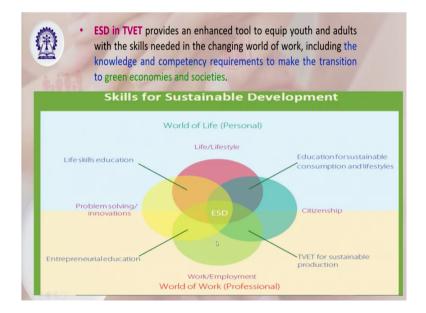
Then, starting from there, again we are moving slowly towards the step 4 that is monitoring and monitoring and evaluation and assessing the progress assessing the progress so that we can find out finally as find finally establish the reason for monitoring on the way of various kinds of assessment and evaluation.

Clarifying the scope of this kind of assessment requirements, then developing a monitoring and assessment frameworks. So, from there from and from the 4th step after evaluation, if we find that this is these are the first these are very much beneficial and cost effective and impactful, then we are we gradually embed it and include it in our day to day process, day to day activities, day to day process that is daily practice.

So, this is the holistic approach of how TVET can be provided to the institution can be embedded in the curriculum or how it green TVET can completely modify, completely change the whole system towards the more green greener production, greener society and sustainable establishment.

So, this is the; this is the whole thing whatever we have discussed that is scope for sustainable and TVET institution, these all these aspects. Then, step 1, step 2, step 3 that we have already discussed right now. Then, step 4 after monitoring the progress and assessment results, then we are going to we are going to implement it; implement in your daily practice.

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So, now, we will discuss about how ESD provides an enhanced tool to equip youth and adults with the knowledge and the skills that is the knowledge and the competency requirement to make the transition to the greener economy. Here, we are talking about the greener economy, how the skills for like these are the some of the skills that for required for the sustainable development, how ESD plays a vital role.

As you can see here there are four circles; four circles are overlapped. So, four circles, four domains are working is as you can see there is one domain is you can say citizen's; citizenship behavior, global citizenship we have discussed. So, how citizenship behavior also that is the one domain, where education for sustainable consumption, lifestyle; then TVET for sustainable production, technical vocational skills for the sustainable production that plays a important role.

That is in the domain of citizenship. Then, another is the work environment domain world of work environment domain that is the workplace situation. Then, the next is that next is that in problem solving system, the challenges that we are facing; the challenges we are facing is another domain, where this life skill education is required, entrepreneurial educations are training and educations are required; how this can be provided, how the youth and adults and the manpower will be trained in a very sustainable way.

Then, another is that work life or the personal life our personal life and the one end that is the our personal life, at the other end is the work life work life and the one at one end this is again the citizenship behavior, citizenship domain; another is the problem solving approach or the innovations to solve the challenges.

So, if we apply adopt all this green approach everywhere in our in consumption style, lifestyle, then in our production and also production also manufacturing the production and in the space also in the workplace also we go for the more greener products, more eco-friendly products more eco-friendly approach and then, even for the entrepreneurial education also training and education also we follow that.

ESD should be more in it in terms of the green approach, adopting the green or eco-friendly approach. And we always whenever we seek for the challenges and for solving the problems and solutions etcetera, then again also we will we should seek the green approach that is the minimum carbon footprint, minimum damage, minimum negative impact approach to solve the problems and face the challenges or to mitigate the challenges.

Then, the life skill education; that means, in our consumption, in our day to day consumption and in our behavior, in our lifestyle everywhere, then we need to learn certain life skills for adopting that ESD pattern or sustainable have a sustainable lifestyle in our domain; both personal domain as well as the professionals.

So, when all these circles only all these domains, they intersect and this is and when they intersect the core domain, the core space we can say that the ESD is being placed in the core domain that is ESD is the core theme of essence of everything. So, whatever we are doing, ESD is ESD is implemented; ESD is embedded; ESD is you can say ESD is ESD approach has been applied see here.

So, skills; so, in this context, we need to develop certain skills. The skills for the sustainable development. So, how can we go for that sustainable skills in the technical and vocational education, let us see it.

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So, why in why to invest in ESD? As till now that now we have already understood that what is the importance of ESD and how ESD is very important to acquire the relevant skills, values and knowledge required for to build a sustainable future, sustainable society and how to make our citizen more informed, citizen more conscious and a lot and consumers to lead a sustainable lifestyle to me move towards the sustainable development goal, agenda of our of UNESCO and of our countries and how to go for a green economy and the green society that is our primary focus and here, ESD plays a very important role.

So, green TVET prepares the people for the more green jobs; more green jobs contribute to preserving preserve and restore the quality of the environment, while improving the human well-being and social equity. As at the same time, we are focusing also human well-being and human consciousness to enhance the inhuman consciousness, conscious practice towards the sustainability. So, because of all these things now the government is also investing on creating the potential jobs for the creation of the skills needed for the new green sector.

You can take the agriculture; not only agriculture, but also in manufacturing, in service sector, in even in our even in technical front also, technical front we are planning to go as green as

possible; as green as possible. Even the global in the market, retail marketing also we are going for the green skills, knowledge and the skills for the green jobs.

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So, here, we can say an UNESCO also UNESCO has a has the center; UNESCO's International Center for Technical Vocational also that is UNEVOC also it assists its member countries; member countries and the states in greening that this TVET education with special and at special focus on teacher training, teacher education, curriculum development, green campus and learning resources and I also know for enhancing the multi-stakeholder partnership to integrate these ESD and TVET.

So, UNESCO has already given the direction and the guidelines how to go for TVET in a more greener format, in a more greener approach, the more greener approach and how ESD can play a very important role. So, those these are some of the recommendations that is coming from the UNS and expert committee regarding this green curriculum, green campus and green TVET.

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So, first thing is that the thing is that the integrate sustainable development into education and training at all level that we have been discussing since last few classes that is how ESD can be embedded in the curriculum starting from the starting from the school curriculum to the college education plus higher education every year. So, incorporate the principles of sustainable development and environmental awareness into the all levels of education.

Again, the strict the guidelines, the principles, the ethos, then the even in terms of the content, how it can be incorporated. They train the teachers and the trainers. So, we have to train from time to time through ESD approach, we have to train our teachers, our trainers both at the educational level professional education and so, and other and what are the and make them aware of what are the critical issues, sustainability issues right now at present and how to integrate them in our daily practice and what are the current challenges that we are facing. So, we have to update them.

Ensure we have to ensure the curriculum to be very updated and we have to update them with the new curriculum and we have to apprise them from time to time, the economic issues, social issues, environmental issues which are very much significant components of sustainable development as such and how to take into account. So, how to make the ESD an integral part of the training; training for the leaders training for the business houses, training for the trade unions, training for the NGOs also, training for public services, training from the all kinds of industries both manufacturing and service sector industries.

So, we have to make it; we have to make it, how to blend it, how to embed it how to incorporate it in not only in education in training, continuous learning, lifelong learning, practice, internship, experience, workplace practices, then principles; everywhere how to embed ESD with the greener approach.

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So, now, second thing is how to promote the technical skills for the transition to our greener economy. So, again at the same time, we have to promote the technical skills required from required to transit from move from this present current state of affairs to the another state of affairs. That is to promote the technical skills from the transition to greener economy; how the economy can move towards the more greener phase.

So, train the TVET teachers and trainers in the fast growing green sectors. So, that is how we have to update them. Not only in agriculture, not only in agriculture, but in entrepreneurship, in service sector, in you know public service sector even in the you can say even in the areas like even in the areas like in defense in the traffic in the traffic, then the even the

environmental pollution control, even in the communication; everywhere how to go how to adopt this green TVET approach to train the teachers in the this making this planet, making this earth a more greener space more sustainable space to live in.

So, that is how we have to revise the TVET curriculum; whatever existing TVET curricula is there we have to revise it. And the courses in a more energy saving and cleaner adopting the more energy saving in the cleaner technology and more economic sustainable agriculture and traditional including the traditional technology which also advocates for the green technology.

And adopting a kinds of and that means, recycling process also; we are also like you know waste management traffic control pollution control, so recycling of the waste products. So, these things are also be also should be a part of this kind of management ah; that means, waste management process.

So, provide the re training for the skill upgrading. From time to time, we have to update it with the technology. With the technology up gradation, we also need to update our skills and competencies, where the workers will workers skill will be up to date and up to date with the new requirements, with the new demands of the green economy.

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So, here, we can save even for the; even for the micro and small enterprises also. We have to promote the technical skills the for the small and micro enterprises also to how to improve how to match between the classroom activities and the workplace learning. Again, what we are learning at the training center; what we are educating the students regarding the skills and competencies how it should be carried over; how it can be transferred to the real classroom, real workplace, learning experience through apprenticeships and then, through internship, through you know we can say through projects, through assignments, through short term you know short term courses etcetera.

So, how again at the same time, how to involve the private sector, how to involve the private sector and trade unions and employer associations also in designing their own TVET courses, designing their own TVET products, designing their own TVET practices which are very much relevant to the industry.

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So, here you can we can say that promote the basic skills and cross cutting and generate green skills to enable the workers to meet the new and emerging skill needs again. At the same time, it is not just about those basic skills, basic skills on literacy and new neuro numeracy and eligibility and the employability skills; but also to, but also more generic green skills to

enable the workers to meet the new demands, the new demands of the market, new demands of the workplace.

So, in order to; so, in to increase the capacity of the education and training system to provide not only to provide the basic skills for all, but to enhance the national skill base also. Now, we have this; we have this skill development centers, ministry of skill ministry of entrepreneurship, they are from time to time they are also delegating the work; delegating the responsibility to different institutes and centers for the skill training etcetera. So, we have to also while updating our self, while catering to the needs of our employees, our workers, our students, our stakeholders.

At the same time, we have to match it with the national interest also. So, national skill base what is there in the repository, what the ministry what the government actually striving for striving for is trying to attain or establish the new skill base or new skill set. So, that also we have to match with. So, we have to cultivate the key competencies, that is required to facilitate the transition to sustainability such as entrepreneurship at the risk management.

So, it is not about just about the production and service and towards the greener approach; but green products green service as such, but also the entrepreneurship and should be also sustainable the entrepreneurship approach from transition to sustainability to entrepreneurship risk management, disaster management and being proactive. Being proactive, how can we plan ahead for the future needs of our stakeholders and how it can be more eco-friendly, how it can be more sustainable and with the minimum damage to the environment, minimum depletion of those resources.

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So, under this again, so to enhance the entrepreneurship skill also, education to promote the launch of the new enterprises self-direction, self-employment, self-startups. Now, the startups either directly or indirectly contributing to the green economy. So, they provide the entrepreneurship training also and business coaching to our small scale industry, our small scale entrepreneurs like for the to for to boost this startup green businesses, microfinance projects through microfinance finance projects through start up you know start up seed money for developing countries for developing that multi-dimensional, multi-dimensional opportunities job opportunities employments and the training for the stakeholders.

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So, here again another important thing is that policy implementation. So, here we have to enhance the policy coherence and that should coordinate with the implementation of education training for the sustainable. At the policy level, it should also be there, it should be completely blended, it should be completely merged in the core domains.

That is the enhance the policy coherence, coordinate implementations of the education training for sustainable development from the top level the in term in from the policy level itself. It has to be blended, it has to be merged, it has to be included in the framework in the framework.

So, therefore, the now new sectors, new emerging sectors have also come up like you know being green such as waste management, recycling, agriculture working condition, all these things are also has become where the very important vital areas because these are the areas which requires a more green approach toward the sustainably use, sustainable practices and sustainable environment and sustainable development strategies.

So, therefore integrate the skill development into the national environmental and development strategies. So, skill development, more green skills, more green approach to TVET, how these things would be embedded in the national developmental strategy, environmental strategy and training strategy.

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So, as a part of this again and as a part of this again, design the education training responses in collaboration with the relevant ministries to address the national regional and local demands at the. Being global mean also mean also means also taking into account this regional local demands to address the local issues, to address the local issues. Therefore, design and implement the ESDs policies through inter-ministerial and intersectorial approach that is also involve the private sector, civil society, local communities and scientific community.

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So, here there should be; there should be you can say there should be a there should be a consensus that should be a consensus in while implementing the thing that in terms of policy framework that the both all the stakeholders your our private enterprises, those NGOs the government sector people, stakeholders, users, direct customers, consumers and the production, you needs everybody they should sit together and while deciding that, these are the sectors overlapping sectors, how these green skills and competencies and green approach can be applied can be applied.

So, there should be a proper discussion and forum for this intersectoral issues and the domains. So, now, go now while going for the green jobs and the green skills.

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So, before going for the green jobs and the green skills, now we said how this can be a these are the design and implementation of ESD policies through inter-ministerial, inter-departmental, inter-sectorial approach which all should also involve all stakeholders like all the all types of stakeholders that private sector, civil society, local communities, scientific communities and consumers, customers, you know service sector people everybody.

So, up to this now we discuss; after this class, we will go for the further elaboration on these things.

Thank you very much.