Drivers for Employment and Entrepreneurship
21st September 2016

Proceedings Document
Technology is increasingly being seen as a business enabler and as a vital tool for bringing in process efficiencies and higher degree of standardisation. For MSEs to develop a competitive advantage and to operate in rapidly globalizing market, a strong focus on implementing technology is likely to play a crucial role in the growth of the MSE sector. Technology will also play a pivotal role in access to finance in the future. A low technology base results in low productivity, which makes these enterprises uncompetitive and thus undesirable for Financial Institutions. Moving forward lack of technology will have a direct bearing on the financing opportunities for MSEs.

At the same time a sizeable number of enterprises are set up and managed by first generation entrepreneurs with limited managerial training, particularly in the micro and small enterprise segments. With limited training and capacity building of entrepreneurs, such enterprises experience significant challenges in resource management, technology adoption and financial planning. Thus technologies and capacity will play an important role in the growth of MSE sector, which is a backbone of any economy - developed or emerging.

In this regard, a Roundtable Consultation (RTC) was organised in Delhi to address issues related to Technology and Capacity building for Employment and Entrepreneurship. The overall objective through the discussions is to form a “policy to practice connect” to create scalable solutions for employability and entrepreneurship where the major drivers are capacity building and technology.

Mr. Shrashant Patara, CEO of Technology and Action for Rural Advancement, gave the welcome address and set the agenda for the consultation. In his opening remarks Mr. Patara mentioned that “The TARogram Yatra” is actually a journey; each event being a journey in its own right, but it is a journey that we’ve also undertaken in the last seven years now, focusing on different aspects and different dimensions of sustainable development. In this year’s Yatra we look at little bit more closely at the Sustainable Development Goals and particularly at the kinds of shifts that will be required in policy if one were to act upon the goals that have been set by the international community over the last three or four years and hence the theme for this year’s Yatra is “Policy Shifts for
Implementing the SDGs in India. One of the features of the TARA Gram Yatra is the practice to Policy Connect that is brought out, because on the one hand we have people who are decision makers at the highest level, at the other level you have on-ground practitioners in the areas of development progress, environment etc.

This particular session will focus on enablers for Employment and Entrepreneurship. The two sessions' today will look at technology and capacities as enablers and not so much at finance and markets. Our first set of speakers will focus largely on capacity building as a way of enabling on entrepreneurship and employment and then we have a session that will focus on technology. We will share the flagship initiatives that have been launched by UNDP, by corporate partners and Development Alternatives and TARA in these areas of enabling employment and entrepreneurship.

At the end of the day we hope to make a connect to the Sustainable Development Goals (SDGs) and identify the three or four mechanisms that we feel would accelerate our work in that direction.

Mr. Clement Chauvet, Chief, Skills and Business Development, UNDP gave a special address on employability as an enabler. He said the topic is very close to us at UNDP because the SDGs is something we will continue to work on for the next 15 years. When you talk about the SDGs and in particular the connect with Employment and Entrepreneurship, UNDP has a project - “Project Disha”. Mr. Chauvet mentioned why he thinks it is important to increase the number of women in the workforce is because, women are the cornerstones to development especially in India. They are facing a lot of obstacles, but if they start putting money on the table and take up roles on the shop floor in the factories then it has a lot of impact not only on themselves but also on businesses.

One of the big things that have come out of the pilots run as part of the project is that major problem women face in the lack of information. Therefore, we at UNDP will work on bridging the information gap: how do we reach out for women and adolescent girls and help them decide what is the future to them through facilitation of information so that they can make an informed decision of their future. The second is to ensure there is an adequate amount of jobs by working with employers and to get alignment with expectations of the employers. The last is we want to work on entrepreneurship. We found that there is direct correlation between the age of girls and employment and entrepreneurship and we need to reach out to them when they are young.

Mr. Atul Satija, Founder, Nudge Foundation gave an address talking about the skill development and the work being done by the nudge foundation. He said the Nudge foundation is a very young startup in the social sector. He said, ‘What I’d want you to do today is to look at the Nudge Foundation as a Startup Case study in the non-profit sector from people who don’t know anything about the sector. The idea behind
starting Nudge Foundation was how do we do something no matter how small that it actually goes all the way to the end and creates and impact i.e. sustainability of the impact on the ground, and, how do we achieve scale. The organisation started nine months back and we now have 61 employees with backgrounds around non-profit and business’.

The problem at hand is that India is adding a million people to the labor market every single month. So in the next 15 years we will add a population twice the size of Japan’s population and half that of the USA into the market, which is a huge number and is not a demographic dividend but a social time-bomb.

The problem is also one of repair vs. prepare, that is if somebody has not got the right prepare job done to her or him in 18 years, then what is the repair job that needs to be done when someone has dropped out at 18. So to solve the problem you need to do the right job of the repair job. What we basically provide is three skills:

- Economic Foundation, which is skill to earn money
- Learning Foundation i.e. the value that you create for your employers
- Life Foundation i.e. the value system you have which cannot be built in a typical 9-5 setting and thus led to the residential program

The organisation has a four-month long rigorous and regimented program, with each month being one term. In these four months we run all of these foundations in parallel and try to provide a 360-degree live learning and foundation to under
privileged youth along with a life long learning support. This is done through an admission team that goes out into the slums and into rural areas to admit youth. The target age group is 18-35 years, with 18 being the minimum because there has to be a job linkage at the end.

The program has various components such as dance, yoga, cognition, motivations, job-fitment, etc. which are common elements in any such program, which are used to draw people in and then work on skills that matter such as employability, capacity, and entrepreneurship skills. As an example, there is a course where students in groups of six get Rs. 500 per person, and they have to double the money in four weeks in the evening one hour that they get to go out in. At the end of the 4 weeks students learn about planning, organizing, while also learning to take more risk.

The organisation has had a 125 percent to a 150 percent placement rate, and they have always had complete placements for all their students. In cases where people have left their jobs they have started off their own businesses or they have changed their company.

**Discussion Points**

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<td>How many students do you take in per batch?</td>
<td>Up till, the organisation has graduated 111 students, but now because the model is working they have scaled to four <strong>gurukuls</strong> in Bangalore with a capacity of 100 students each.</td>
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<td>How many women?</td>
<td>70 percent women</td>
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<td>Is the program residential?</td>
<td>The program is 100 percent residential. We do not take non residential. The mix is 30% urban and 70% rural</td>
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<td>What is the cost per student?</td>
<td>In the first batch it was over Rs 50,000. In the last four months we have brought it down to under Rs. 40,000</td>
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<td>What is the language of instruction?</td>
<td>Each gurukul is homogenous for language and gender. It’s a Kannada speaking women gurukul or a Hindi speaking men’s gurukul</td>
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Mr. Ketul Acharya, Sr. Vice President and Group Head - Skills Initiatives, IL&FS Skills, began his talk by saying that the best way to begin this conversation on enablers for employability and entrepreneurship is to talk about for whom are we speaking today – “Is it the uneducated and unemployed youth or educated but unemployed youth?”

He also said we need to think on whose capacities should we build. There are key players such as government, UNDP, TARA, and Development Alternatives, who give a lot of inputs on policy. Mr Acharya said that there are other questions like “What is the right salary for trained youth in urban centers like Bangalore?” and “Jobs are in urban centers but the unemployed youth are in rural areas, so how do we bring these two together?”. Even after 10 years of providing training these are the questions we still struggle to find answers to and these are all questions we need to think about and search answers for. At the same time the capacities of technology enablers also needs to build up.

The last two or three years have been different in terms of policy for this sector. There seems to be things that are happening even though we are still trying to evolve policy.
IL&FS stared on the skills development journey in 2007 and offers short-term (three months to six months long) programs on skill development. The organisation works in over 21 sectors offering over 100 courses, such as agriculture, engineering etc. These programs are as per industry requirement. The first challenge we face is “What is the salary? Whether the compensation for skilled individual needs to be higher than unskilled individual?” The second challenge is that “youth does not want to migrate from rural centers, but does not have the skills to be an entrepreneur in the rural setting. So how to tackle this.” Another major challenge where we have been partially successful is “How do we convey career growth for an individual?” This is of particular importance as this is decided by the industry and not by actors like us or Nudge Foundation, or TARA, etc. This is also where policy maker’s role is important so as to make skilling aspirational.

IL&FS has devised mechanisms called entry gate assessments for identifying what are the best career options for individuals. The organisation also does train the trainer programs to tackle the dearth of trainers. The trainers who are industry experts are taught in these trainings on how to manage such youths. IL&FS has over 1000 employers. There are a lot of industry visits, role-plays, etc. as part of classroom. Life long career support is also provided.

To end the talk Mr. Acharya said that in India to successfully skill the youth we need to work as partners and IL&FS is open to collaborations with other organizations.
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<td>What is the ratio of number of people skilled to number of people placed?</td>
<td>We have 85 percent placement ratio</td>
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<td>Out of 85 percent what portion is in large companies and what portion is in unorganized sector?</td>
<td>Sector wise the data varies from 40 to 90 percent.</td>
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Mr. Akash Sethi, Executive Director of the Quality Education & Skills Training (QUEST) Alliance, said that Quest Alliance was setup mainly with the goal of looking at how education technology could be used to support and scale up of existing vocational training centers. It was started by USAID and International Youth Foundation and then taken on by other organizations who support Quest now. The focus is on self-learning and learning to learn.

*Picture 4: Mr. Akash Sethi talking about the skills required for trainers*
Mr. Sethi mentioned that since capacity building is a big subject he will attempt to go deeper into one aspect of the value chain of capacity building and will share some learning. He said that most of us come from a broken education system. When we delve into what creates that inequity among all of us and we see it’s generally the teacher who is guiding us who herself/himself has gone through such an experience. Therefore one of the major factors is the trainer and how to build capacity of the trainer. So the question is “Do trainers have 21st century skills?” and the fact that teachers or trainers don't have these skills is really the bottleneck if we are to get these young people prepared. Another important point to consider is “who is a trainer?” A trainer is someone who has domain experience, but he/she is also a learner. The trainer is playing many roles in student growth: in managing industry, in designing curricula, in assessments, and so on and so forth. Additionally, on the personal side the trainer is also expected to know his/her own personal development, expected to know ICT, and expected to take up administrative tasks at the center. All this is expected from a person who has to work at a compensation of Rs. 12,000 – 20,000 range, with no understanding of what their career path is – will they grow, whether their students will get fancier salaries than them, etc. Therefore, the sector standards are not properly established when it comes to trainers. So the questions we try to answer is “can education technology enable scale and quality while working with existing training systems and working with the people on the ground and not necessarily setup a new system that runs parallel to the existing one?”

So the first gap Quest Alliance identified is that we can’t scale life-skills because the investment in a trainer does not add up the return that I get from that investment. So the first thought was to bridge the digital content gap. This was done through a digital content toolkit. No one reads manuals today except for 10%. People are so used to information coming to them, that most trainers because of their age group of 25-30 years old are interested in information being presented to them. There were two learning from this toolkit – Technology was a pull factor for people to come and use the toolkit and the other was that the trainers own life-skills go up not just by preparation but also by reflection.

So the second gap is the identity gap, i.e. “What is the career path for trainers?” Quest started a virtual training program for trainers that helps a trainer move from a training mindset to a coaching and facilitation mindset. It helps him/her understand self, understand active learning strategies, communication skills, reflection skills, building a community so one is not by themselves, and building an identity of a professional. The real value in this program is that it is very application oriented and the trainer does not have to go to a ToT and can use his/her own classroom as a learning environment.
What quest focuses on is not trainer led but trainer supported trainings. It has a blend of classroom sessions along with e-learning sessions and uses a lot of real time data to make learning more effective.

Ms. Kusum Mohapatra, Director - Livelihoods, Magic Bus Foundation, started her conversation by talking about a few important questions about skills and capacity building - “Do we look at the problem as an emergency?” or “Do we look at the problem from a long-term perspective?”

She stressed upon “How do we create a solution that lasts long term”. The other thing is “what kind of opportunities do young people need going forward”.

Next she spoke about what Magic Bus is doing. She said the solution isn’t easy and one of the things that their organization realized that it will not have all the answers and will not be the one to find the answers on its own. Therefore it will need the right kind of partners onboard within this program design. The primary goal of the program is sustainable employment and when we say sustainable employment we mean entry-level plus one job. This means building capacities to such a level where they can access entry-level plus one job. The second is getting them into higher education so that opportunities for them increase. The third is developing enterprises.
We also found that Skill development organisations face three major challenges. One, they don't know how to get young people to the fantastic infrastructure that they have built. Second, young people don't complete the program and if they complete they don’t join any work. Third, once young people move into jobs they don't sustain in these roles. Therefore Magic Bus focuses on not only on enabling young people to get jobs but to stay on in these jobs.

The program focuses on ensuring that the young people who come into the program know where they are headed. The first step is to do a needs assessment of the person coming in and developing a personal development plan so that the trainee understands the difference between a job and a career, and what does it mean to have a long-term career and how can he/she move towards it. Therefore Magic Bus realised that they have to move towards aspiration building.

The second step is scaling. Magic Bus uses a lot of activities, games, and sports as a medium of engagement. The attrition rate in our program is less than 5%. We have realized that this is because of the use of methods that are interesting and relatable. This was also reiterated when most employers feedback that they want youth who were committed to work.

Towards the end Ms. Mohapatra said that content has to be looked at from both a rural and urban perspective, and finally when it comes to the trainers you can’t take the human element out of it.

Skills are the most essential drivers for transforming lives and for fuelling economic growth. Skilling one individual opens up opportunities for social and economic growth, not only for the individual, but also for the larger community through the individual. The government has acknowledged these needs and has embarked to skill and train 500 million people by 2022 through the National Skill Development Corporation (NSDC). India’s future will now more than ever be defined by how well it is able to skill its young population and enable their absorption into productive and gainful employment on a large scale.

The second session on Technology as an enabler started with a talk by Mr. Manish Kumar, CEO of National Skill Development Corporation [NSDC]. Mr. Kumar said, the skill environment in India has undergone changes. NSDC started in 2009 with a skill based model which was more towards fee based institution. That time it was NSDC alone with it being at the forefront into the sector as that of skill which is considered as a market failure generally. There is a funding from government of India to create an ecosystem. A lot of vocations, which did not have standardization or formal way of being delivered, are now being done. An environment was thus created. Secondly
giving soft loans was made available to institutions, which wanted to create good centers.

A second of phase Ministry of Skill Development and Entrepreneurship was created. What was earlier run through NSDC by Ministry of Finance had now being formed into a Ministry with a budget about 1000 crore. Today it has a budget of 32000 crore to be spent in 3 – 4 years which is a huge amount of change which has come about in 2 -3 years. With the money coming in, the fee based model got displaced with the subsidy based model. There came in a launch of Star and Pradhan Mantri Kaushal Vikas Yojana [PMKVY1] scheme. However, there was a difficulty in the beginning in executing these schemes for both NSDC as well as for the Government because while they were rolled there were many criticism. One of the issue was that the quality was being comprised. Monitoring of the training got affected as people who had no intention of imparting training had entered the ecosystem. Considering all the drawbacks in PMKVY1, PMKVY 2 is ready to be launched with revised agenda and new training partners. It will be launched online on 2nd Oct’ 2016. These training partner are going to be rated from 5 star to 1 star. This is essentially to get the best training partners on board. They are the ones who will be directly training and it will be a dynamic mechanism. However, there are still many challenges and these can be mitigated through partnerships with training institutes, NGO’s and several other community organizations’ those who are involved in the ecosystem.
NSDC has been disconnected with state level offices in the past mainly because of its design. However, it has now opened 12 state offices. It is continuously meeting state government now keeping them totally apprised of the fact that they are in the state and the centers they are supporting. So that there won’t be any duplication where they finance the same individuals / institutions. NSDC is also ensuring that there is a bigger integration in the central so that the next generation of technology/ portal that they are developing will be provided to all the states so that they can also then access the same data and they could also for their own use utilize the same software in the same platform. Going forward, this way they are making it extremely interactive with the state government and also making it very user friendly. That is where and how the NSDC is heading in terms of its design. In terms of numbers, NSDC has already been given a target by the honorable Prime Minister and it will have to keep that in mind and aim for the target. Also, it is implied that these targets been met without compromising on the quality. Although in some states, NSDC is likely to miss the targets this year but in the coming year the plan is to exceed these targets by redesigning the plan. The target is still very important to NSDC but with full consciousness with reference to quality. Second, the biggest challenge NSDC has found in mobilizing the youth at their own interest. The issue is, it should not be supply driven initiative but demand supply initiative. There is a realization that the youth is not looking at from the aspirational perspective. So to make it look more aspirational NSDC has greatest media put together with a strategy to bring in a community behavior change which does not happen in one day and therefore they have a multilayered communication strategy wherein through various ways they are trying to influence minds of individuals by bringing in facts and figures which will be of interest to them. Although some issues are deep rooted and will take time to resolve, but the idea is to create an ecosystem of the value that skilling brings.

Some of the things that are missing from this sectors which needs attention often it has been found that the industry does not respect individual with skill. There are no differential wage scale for someone who is more skilled. That’s because private industry does not care the amount of productivity a skilled person brings in. There are many private companies that have collated data of the incremental gain of productivity to a company that being public good, but they have no interest in that. But somebody like UNDP for e.g. or even NSDC could actually work on these issues. They could actually tell these industries about the gain that comes with skilling. For e.g. the rubber board has conducted this study and what they have found is that someone who is skilled in the ecosystem, the productivity changes by 49%. As a consequence, sector skill board is also doing well. The information drives this domain which was a missing piece.

Another most important concern is the entrepreneurship part – to which there is no immediate answer. Eventually anyone who is skilled may not immediately get a job.
Lot of them will remain out of job for a while. This is a very dangerous situation for the nation to have highly skilled people frustrated because they don’t have a job. Therefore it is important to create opportunities for entrepreneurship. There are financial mechanism that NSDC supports such as Micro Units Development and Refinance Agency Ltd [MUDRA] but there is not much coming from the Government simply because entrepreneurship by nature possesses a high risk of failure. So NSDC is looking for social investment funds from private sectors. For instance, there are 10 districts in Orissa currently being experimented by such support to see what happens when they inject private sector money to Government into entrepreneurs to micro entrepreneurs. One of the good findings that has come out that these private investors has found that the failed entrepreneur is also as an asset as he/she brings in learning which next time around he/she will do things differently. The renowned entrepreneur, Mr. Subroto Bagchi, Chairman of MindTree, admits that he would not have been a good entrepreneur, if he had not failed. From the private side there is no failure, but from the Government side there is a big failure as Government is very conservative. For e.g. to invest Rs. 10 it will ask for Rs. 20 so that it puts in that R.10. Therefore it is very hard to get money from Government for entrepreneurship which by its nature is going to fail significantly.

Therefore in PMKVY 2 there are 40 hours spent in developing a programme irrespective of job role a person is being trained on which is on entrepreneurship. The training will actually have a component where everybody irrespective which training goes will have some knowledge of what entrepreneurship means. So that way, at least in training terms there will be high level of knowledge among those who pass through PMKVY 2 compare to previous round. However, funding from Government on the entrepreneurship side is unlikely to come compared to the social impact investors that is more likely from the private firms. NSDC realizes there is need for a larger space for the kind of programmes Government is asking them to do and NSDC is prepared to take up the challenges that will come up there way.

**Discussion Points**

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<td>Have you thought of bringing in banks to get into this sector as there is lot of liquidity and if you also look at the repayment failure that are happening, it is not coming from small entrepreneurs who are taking 1 lakh loan, but coming from those who are taking 9k crore loans. NSDC is one of the best institution to convince them to come on board so that</td>
<td>On the banking side, NSDC actually gives loans at 6% interest rate to anybody who is competitive. One way to do this by having a state presence then get aggressively in terms of how we finance like a bank. We have to function like a continent to operate a nation like India</td>
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you can pass on some of the risks. I can understand government cannot take all the risks and banks are in the business of taking risks. Other things group lending also works. There repayment rates all over Indian are phenomenal whether you pay it to SHG’s, the repayment level is very high so that is another model that can be tested.

In PMKVY – 4 to 6 months trainings programmes have a smaller requirement for the workshops. A government ITI institute occupies 2 – 3 acre land while rolling out 200 – 300 candidates viz – a viz a private training institute. Most of your partners would be rolling out close to 1000 candidates in 2000 sq. feet area. The ITI needs to be leveraged. The infrastructure needs to be leveraged in order to push these seats and roll out these kind of numbers.

Which are the 12 states where the NSDC will be operating soon?

Immediately – Andhra Pradesh, Karnataka, Maharashtra, Bihar, Rajasthan, Madhya Pradesh, West Bengal, Orissa. Although 12 are fixed but the intention is to grow in numbers in other states

Please throw some light on life skills and learning skills especially those elements that make a difference in a person’s life.

Cognitive ability is the foremost. However, any individual that possesses the required soft skills will go far ahead in life irrespective of the field/ sector he/ she chooses to be in. Emphasis has
been on the vocation in the past however there has been an increasing awareness about need for soft skills has increased and NSDC promotes that very heavily. In fact even within the NSDC team of trainers, there needs to be focus on developing them on soft skills and then imparting the same to the trainees. There is a possibility of ones remuneration to increase by almost 30% + if the person has adequate soft skills. The ITI’s spends almost 400 hours for technical and 100 hours for life skills. There is a need to be a little radical on that chain of thought where one spends 400 hours in life skills or integrate life skills with technical because the infrastructure that is there at an ITI will anyway never enable a young person to learn the tool they need to learn. So they may as well spend 400 hours in life skills in a youthful space rather than other way round. A typical mindset of our nation is that if we have studied a book then you are considered to be ‘studied’ but when you are exchanging ideas with someone it is considered to be a waste of time. This thinking however is gradually changing although we haven’t reached a tipping point where it can be measured.

While most of the Government schemes do specify the number of women candidates to be enrolled for each training programme but there is not enough emphasis on gender trainers or NOSS or gender mainstreaming in the different sectors and UNDP has been struggling with that because the trainers are not sensitive to women candidates.

One of the reason why India would not be able to get full benefit of its demographic divided. Only 28% of women work force are contributing to the Indian economy as compared to 80% in China. There is a huge necessity to incentives this particular aspect. There is a need to be aggressive on this aspect.
who come to the training programme. Also they are given the last priority as far as placement is concerned. What are NSDC’s plans to address this vast gender disparity?

What steps NSDC is planning to take in consolidation of variety of trainings that are happening right now and how are you also looking at building right kind of partnerships within organizations beyond PPP. Right now there is no platform that we can come and converge and create strong sustainable partnerships that will work with each other’s strengths. Many individuals are doing the same things the same way and investing a lot of money. Is there some plan that NSDC has in that regard?

There has been a lack of private sector partnership in NSDC and the other is lack of skilled committee members. Large capacity of NSDC be leveraged to become job giver itself. Some people say that the best training is to get people job and then the on job training. That is much more attractive and the training is much more focused. So how about NSDC opening an arm which informs the nation that if you want 20000 people with jobs, we have a large database, large institutional capacity – resources from all across the country. So provide them with jobs and NSDC would give directed training through the existing partners. So how about opening that window for experimentation?

This challenges has been noticed by NSDC as well and has been discussed with the ministries as well. There has been requests that we keep organizing regional conference where everybody who is interested in skilling ecosystem can join and share their experience.

This has been presently been done by Government of Bihar. They first recruit then they train and then they deploy. It does work. But perhaps not in all sectors. NSDC recently had a MoU with Uber and they want to train and deploy 1 million drivers in next 2 years. NSDC is committed to train them and Uber will then give them a car at a subsidized loan.

NSDC will have to look at regional characteristics and plan accordingly. As each region will have a different demand and supply system and also aspiration.
Ms. Vanita Viswanath - Independent Researcher & Ex-CEO, Udyogini spoke on technology as an enabler for employment and entrepreneurship. One area in which Udyogini has worked continuously is forest based livelihood. Continuous innovation in science and technology for combating climate change for benefit to those at the very bottom—tribals. Udyogini demonstrated over 8 years of work in lac (a resin) that it is possible to increase incomes substantially and give life choices (sustainably) with one’s product. This is something very uncommon. In two cycles of 22 days of this resin a lakh and twenty thousand rupees is the annual income. It has sustained for 10000 producers in Jharkhand over last 4-5 years. 6 lakh of people are dependent on this in Jharkhand. Chhattisgarh, Orissa and Andhra Pradesh are the states where this is possible. It is now being taken over by China. Laos is experimenting with new host trees including mangoes because it is an industrial product.

Lac entrepreneurs (took loans, profits, created employment) + employability (of women) as tech service providers in govt programs. National Rural Livelihood Mission [NULM] has taken this up in Jharkhand and a lot people who Udyogini has trained have become service providers. Host trees were saved because yield was good. This is something very difficult in terms of securing the ecological balance in the area.

With respect to a policy connect there is a need for a mission mode for some high-value forest resources which is presently missing. It requires advocacy with government. Resins like lac and gum have industrial uses and considerable export potential due to non-toxic norms in foreign countries e.g. pharmaceuticals. This is where China was fast enough to figure it out.

Jharkhand was actually the number one producers in the world for Lac but now it is China. Motivation and public recognition for institutions creating technologies for tribals is required. There is one institute in Ranchi that does this work in science and technology from where Udyogini sourced this technology. However there are not many institutes or scientists behind innovating this technology or invited to speak about this. An interactive session is required on this on a larger forum.
Price stabilization mechanisms to go parallel with technology-based yield stabilization. This is still mafia controlled in the informal sector. A lot of Udyogini’s work does not reach anywhere due to this. There is a need to create institutions to control and streamline this. No-go areas for mining where there are demonstrated high-value forest resources for poverty reduction among tribals. This is not likely to be heeded much. But it is important for us to understand when we work with SDGs otherwise some of the SDGs are becoming internally contradictory. This is a proven model with lakhs of revenue being generated and 25000 people have benefitted over eight years.

The second initiative of Udyogini, ‘The Jagriti Enterprise Network’ has been recently launched, created in Eastern UP by the alumni of Jagriti Yatra. It has developed a human platform called i-Saathi for employability and entrepreneurship. Till date they have created, 2000 i-Saathis’ in 9000 villages in seven districts and 24 lakh beneficiaries in one year.
## Discussion Points

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<td>Amber is basically resin that comes from soil and there is so much value addition that goes into simple resin. Why that is in India the private sector take Udyogini idea and take it up and market it as value added product?</td>
<td>The part of the problem is the locations. These are typically remote areas and private sectors will not set up their units because it also happens to be naxal area. So that's a huge challenge in attracting private sector investments into areas which are otherwise conflicted. This is why we see a government play a big role. Incidentally there is another big concern of growing of big business/enterprise big due to the fear of being targeted by the naxalites. This is the reason many entrepreneurs have chosen to remain small just so that they can operate under the radar.</td>
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<td>These entrepreneurs earn up to 1.2 lakhs over a period of 2 cycles of 22 days in a year. Has Udyogini provided any sort of guidance to them as to how this can be invested so as to multiply their earnings?</td>
<td>Many of them have actually invested. But there are two very distinct things that have resulted out of this – a) they have shifted their children into private schools from government schools and b) they bought vehicles – bikes, some even bought cars. Another major transformation that took place that many Anganwadi workers quit their jobs as they are now earning more than they were earlier. But Udyogini is deeply pained as individuals haven’t been able to focus on scaling up their incomes.</td>
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Ms. K. Ramadevi, President, The Association of Lady Entrepreneur of India [ALEAP], mentioned that ALEAP, a twenty year old organization, believes in creating employment through entrepreneurship. ALEAP realises that there are a lot of gaps in the system which it has tried to bridge it through its various intervention. It strongly believes in capacity building of the organization where it plays a vital role in this country. There is a huge need for players like Udyogini and Sewa to take the work entrepreneurship in India at a much higher level.

ALEAP created its own model when it realised that the women need skill training to become entrepreneurs. It is the only organization which has got industrial pass for women and also a training institute for women along with several networks with international organizations for capacity building for women entrepreneurs. ALEAP has presently partnered with UNDP under the DISHA project to deliver an online training programme.

A lot has changed for entrepreneurs in the last decade. It has never been easy without technology. Today it has become extremely easy to access data online as opposed to few decades ago. The Boston Company recently revealed that the tech savvy small and medium enterprises increase annual revenues to 50% faster and create jobs 2 times more. The novel idea of 2015 is availability of IT resources is enabled by cloud will allow more small business to come into existence. It is becoming easier with technology and also cost effective. For e.g. if you are plumber you have better way to reach your customer through mobile app technology. With intervention of technology businesses are becoming easier to manage. Creation of entrepreneurship through technology is one way of enabling employment and entrepreneurship. Online learning, where step by step tutorial is offered is one of the best examples, as today to set up a physical training centre is very costly.
The Project in collaboration with UNDP called Disha has an online character called ‘lakshmi’ who teaches village level entrepreneur about the creation of entrepreneurship. She gives insight into the kind of entrepreneur one could become. Through entering this customised and innovative kiosk women are trained online on how to become trainers, what are the available resources and what are the government schemes available along with how to market the products. Since this is done entirely online, ALEAP spends very less except for the content development. Meanwhile the content is delivered online, this model becomes very cost effective. This is one of ALEAP’s pioneering training model for village level entrepreneurs.

Another major aspect which is trending very rapidly is the online education. ALEAP’s experience says that individuals especially from grassroot level require practical knowledge. An initiative named as Technology Business Incubator, also known as TBI has been recognised to be knowledge driven. Entrepreneurs’ studies show that such mechanism help not only in the growth of technology based new enterprises but also in improving their sustainability. This initiative provides the following services -

1. Market Survey
2. Business planning
3. Organizing management
4. Assistance in obtaining statutory approvals
5. Syndicating finance
6. Arranging R&D Legal and IPR Services
7. Providing facilities
8. Work space & Common Facilities

The proposed sectors for the TBI are - Information Communication and Technology, Healthcare, Manufacturing, Agriculture and allied fields, Clean Technologies, Energy, Water and Services. Some of the initiatives that ALEAP has undertaken under the Ministry of Textiles created a Jute Incubator. Here they permit the entrepreneurs to operate the machines with orders. Once they deliver the orders they stay for six months in the incubator then they leave to set up their own production centre. Along with this ALEAP also has a Food Processing Incubator supported by Ministry of Food Processing, a Handmade Paper Incubator where the technology was supplied by TARA and supported by GIZ.

One of the many success story in the nation presently under technology intervention for entrepreneurs is Mob Me services which is the wireless solution Pvt Ltd. They are from the techno park incubator centre at Trivandrum. Rated as one of India’s 100 innovative start up by NASCOM in 2006. Mob Me was also featured in the annual list of Indian IT Innovators for 2007. Thus technical incubation is an end to end ecosystem for transforming ones’ idea into a successful commercial product which can be used for enabling entrepreneurship and employment generation. There is a great opportunity with this kind of technical incubators. With the support of Ministry of Science and Technology, NSIC, Ministry of Food Processing many such incubators can be created.

Although every day there are creations of several new technologies but an entrepreneur is scarred to invest in it because she/he is not very confident whether it will be successful or not. There is a strong need of a system/institute to enable such entrepreneurs during the incubation period. There is a requirement of agencies, institutions to create such incubators where first generation of entrepreneurs try this technology and once they are successful they move away from the incubator and set up their own enterprise. Based on the organizations credibility banks are ready to fund and finance any of the projects which are set up by their members. Therefore it is crucial to reemphasise on building the capacity of the organization when they deliver something. These kind of infrastructure, creation of incubation centres, bringing technology or delivering skill based training programmes will help to minimise the cost and reach to maximum number of people.
Discussion Points

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<td>After a given period, technology tends to become obsolete and therefore the entrepreneurs may suffer in meeting the demands of the market. How does ALEAP from its learnings mitigate such challenges?</td>
<td>Initially when ALEAP adapts any technology intervention, it is usually a unique innovation. Also there is always support extended from many institutions. For e.g. in the food processing enterprise, CFTR provides the technology with all the technology know–how. In case any technology is dated, an upgradation is available which is funded by government and institutions such as SIDBI. The only big challenge is dissemination of information. One needs to create more forums for such information to percolate to remotest region of the nation as there are several schemes and technology available at the government level especially with the Ministry of Science and Technology</td>
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Mr. Ripu Singh from USAID, spoke about his work. He said USAID Partnership to Advance Clean Energy – Deployment [PACE –D] is a big part of USAID India energy dialogue. It is a 20 million dollar five year pilot programme between Government of India and United States. It works in three thematic areas – energy efficiency, renewable energy and cleaner fossil technologies.

The PACE – D programme identify challenges. It works on the entire ecosystem to see whether there is access to finance and information before it sets up any technology in the rural sector. There are three examples to be shared under the PACE – D programme.

1. The solar irrigation programme in Bihar where entrepreneurs were selected and provided with grant funding from climate group which is a UK based group. The entrepreneurs here are supposed to repay PACE - D within the span of five years. This is ready for scale up now.
2. PACE – D is now working with micro finance institution with three priority states – Bihar, MP and Rajasthan. They also have seven micro finance institutions for which they did the business model planning of 10 years. Out of the seven they faced failure with three and four MFI’s have taken off. They have gone ahead and set up 1 lakh 84 thousand units of D-lite and GSB products which are good quality products. Out of the four, three have taken it up as a serious business and have invited foreign investments from United States and scaling up their programme. MFI’s can be used to finance access to clean energy and innovation. When PACE-D tried to product finance the MFI partners, it was learnt that their client wanted to adopt solar as a business. These clients were later adopted as solar ambassadors who became entrepreneurs. The idea was to provide access to finance but it also resulted in employment and entrepreneurship within the clients of MFI partners.

3. PACE – D is working very closely with Ministry New and Renewable Energy [MNRE]. They are developing Qualification Pad [QP] under this programme. Till date they have trained about 200 entrepreneurs and developed 5 day entrepreneurship development programme. Three such programmes have been already been conducted and three more are in pipeline.

The challenge is that there is low appetite for renewable and clean energy sector. This is the sector which needs more efforts because the common belief from less successful examples needs to be shifted to more successful examples.

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<td>How good is your engagement with MNRE, as power and distribution of power is the subject of the state. On policy level while there has been a push and targets have been set for renewable and clean energy. There are organization who have made the investments but the government does not allow it to commission. There are private players who are ready to invest but the policy is only very good on paper and not on ground. How MNRE is planning to encourage such private institutes to invest?</td>
<td>The skill development programme of the PACE-D having received extension for 8 states is a testimony that there is a movement at the government level. However, there is bigger need for more movement in term of policy. The USAID is trying to make a push on the policy but it certainly requires more focused discussions with the key players.</td>
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For hard technologies such as solar irrigation pumps, who does the repair services or do you train the entrepreneurs in that also?

During the initial period of 6 months there is a training given in the form of addressing faults in technology. Taking the example of the DFID clean energy partnership where in 100 energy entrepreneurs were trained. 20 villages in a cluster were selected and selected one village level energy entrepreneur who was trained in giving services to these 20 villages. He was also given linkages between all the technology providers who were providing the services there. He became the bridge between the technology providers and the village households getting the lights.

Mr. John Gibbons from Babajobs.com started by saying - “Since the time babajobs was established, more than 5100 jobseekers applications have been made across all the sectors and by the time this presentation gets over, we may receive about 312 applications”.

The story of baba jobs started with two nannies to illustrate the problem of increasingly asymmetry in the informal sector. With both these nannies having similar qualification and language proficiency in Kannada, yet one earns drastically more than the other. Through this it was derived that it basically depends on who you really know to ultimately how much you make. This is the crux what inspired babajobs.
Based on a research paper undertaken by Mr. Anil Krishna it was found that the primary path for poverty is income diversification. Which means more often than not is changing jobs. Jobseekers in the low bracket have to rely on the social circle to get a job. To address this crucial bridging of information, babajobs was created. It basically connect low income job seekers with employers who are willing to hire them. This is done through matching them with proprietary algorithm. After matching them with data from both sides and connecting the data points and hopefully making proper match by longer term employment, higher income, and shorter commute along with other factors.

Babajobs have created a multichannel platform that operates both online and offline. It doesn’t matter if the job seeker has internet access or if he/she is even literate. They can access babajobs for free, register, find jobs and apply for them. At the outset it is like a call center model where there are finite number of people with much more manual hours. To address this problem it launched an Interactive Voice Response System [IVR] which has a unique number that is very easy to remember. A jobseeker gives a missed call to and they receive call back which takes them through an automated prompts. Which translates into data form that immediately get transported online for employers who are seeking to hire. Through this they can reach to more than 1 billion mobile subscribers in India regardless of if they have internet access. However for those who do have internet access, job seekers can
access babajobs through downloading the app or a mobile or desktop web. This tech focus approach has allowed babajobs to grow in a big way. To the extent that today they are the large forum for entry level informal job sectors in India with more than 7 million job seekers, more than 440000 employers and over 5.5 million job opportunities posted to which job seekers make 450000 job applications. While doing this, it still targets low income group jobseekers with an average salary of 9000/month.

Additionally, this digital approach has allowed babajobs to scale geographically much more than if they had done this manual. They have jobseekers from every state of India in more than 615 cities across the country. For jobseekers, there is a reduction of cost in seeking information. There is no longer a need to network through ones social network. There is access to much more opportunity through babajobs. In addition to this they are lowering the barrier to changing jobs. If an employee is in a suboptimal position, he/she can change the job easily without costing much in time or money. Babajobs offers more choice as well give more insights on what the appropriate pay is like. For e.g. a maid can figure through babajobs if she is been paid as per the current market rate and demand the same from her/ his employer. Similarly it allows the employers to see if they are paying their employees as per the present market price. For employers it provides large pool of candidates with 100 and 1000 of job seekers relevant for the job but with the filtration babajobs makes based on the information they capture and the interaction they have. This way employers’ hire quality instead of connection.

In addition it provides a large information on the informal sector which was previously missing. There is this specific and detailed data available which can be of value to other stakeholders in the ecosystem. This has led to a new initiative of babajobs called the nextbillion.in which is basically an analytics platform offered to people who are working in Government, Policy makers, Researchers, NGO’s, Skill Development Institute to kind of help share insights from their data that they think will help organise space. Right now it only features three components:-

1. Data on average salaries by pin code and job type
2. Supply and Demand forecasting by World Bank analysts
3. Blog featuring analysis by researchers from renowned institutions

Babajobs can leverage its database of prospective candidates who can also be considered as prospective students to connect with them to the right skilling opportunity and connecting skillers with potential candidates looking for undergoing any skill development programme. Another pain points that babajobs strives to address is the issue of placements. Smaller skillers face difficulty in making placement as opposed to bigger institutes such as IL&FS. Babajobs welcomes jobseekers onto their platform and hope to add value and hope to find them job. In addition even if it’s not finding their first jobs, they are enabling them to find different
jobs 2-3 years down the line letting their own salaries into their own hands. As a part of this, they have created a tool that allows them to create profiles for jobseekers all at once and skiller dashboard to track a skilled seeker’s employment. As a part of this effort they are constantly trying to seek new partners such as DGET, NSDC, and NSDA. Babajobs is already a member of National Career Service portal.

In addition to reaching out to more marginalised groups, they are working on tools and partnerships that will help them by inviting more access and value for couple of groups that face disproportionate barriers towards entering their workforce. That includes women and they are working with their research partners such as UC Berkley to help build plan and interventions for helping women entering and staying in the workforce. There are about 60 to 100 million people with disabilities in India today that’s based on the population growth rate estimate provided by World Bank in 2009. 36% of eligible working age population is actually employed as compared to 93% of India’s general working age population.

Disproportionate employment happens around the world more so in India because of plenty of reasons. Babajobs has been working couple of NGO’s, Disabled Persons’ Organization to try to figure how to make jobs more inclusive in nature and to help secure right kind of employment. Similarly economic migrants are another significant vulnerable population who can benefit from information related to cities which are more viable to migrate based on the higher savings they can make.

These are the different kind of initiatives that babajobs is trying to work on to move towards fulfilling their mission of better jobs for everyone.

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<td>Does Babajobs consider itself to be a social impact company or purely profit making company?</td>
<td>Babajobs have taken steps beyond what others have. Reduced their profit margins significantly. By the means of Interactive Voice Response [IVR], although it is more expensive than the mobile app yet it’s cheaper than a call center. Harder to work with, but babajobs sees it as adding value to the space of reaching more and more jobseekers.</td>
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<td>How does babajobs try to mitigate the challenges that occurs around catering to migrant populations as job seekers?</td>
<td>It is certainly difficult, as migrants have a tendency to change their mobile numbers. A lot of time one is able to contact them when they have reached</td>
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their destination city. We use internal analytics on how many people register at one place and then go to another. The similar map for this population is not as well etched out as opposed to other jobseekers, but we use help from partners like Harvard where they have done couple of research on migrant population. Towards this they are also working with Tata Trust by creating a unique IVR number that allows to track through the migrant resource centers where they can geo tag everybody to see if they leave one place to another.

| Any plans to enter online training business and why is it called “babajobs.com”? | We are more interested in connecting people through this programme as we believe there are better training programme out there than what we could have. We could offer more soft skills exercise where they can offer job interview advice and other such things, but they wouldn’t get into developing content themselves. They would rather defuse through a network. Mostly in India the culture is to consult to ones uncle and other elderly male relatives for seeking jobs and also the term ‘baba’ is very commonly used across all communities in India, hence it represents a household name and thus becomes convenient to recollect the name. |

Dr. Soumen Maity, Chief General Manager, Technology and Action for Rural Advancement [TARA] spoke on his work on using technology as an enabler for employability and entrepreneurship in TARA.

He said that over the past five decades, the country has progressed considerably in providing employment and setting up of enterprises due to technology innovations.
There are about 600 million individuals who are poor. In the industrial workforce, the kind of personnel that have been created range from scientists and researchers. At the same time, India continues to face the issue of poverty and large population, with 120 million households and around 500,000 villages. Typically this can be looked upon as a huge problem, but with increasing innovations in the country, one should look it as an opportunity. These group of individuals are potential jobseekers and future entrepreneurs. If these huge population is transformed by the means of adequate employment opportunities and promoting micro to small scale enterprise at all village levels, it may turn the nation into a powerful economy.

To create sustainable enterprises, three things are of utmost importance – 1) right technology, 2) right institutional support and 3) right entrepreneurial approach. Technology innovations are looked into two aspects – one being hardcore technology innovation and the other being value innovation.

At TARA, innovation in technology is defined by two words – profitable and implementation. It must be profitable and it must be demonstrable on ground. To support this with two examples, TARA in the last couple of years have innovated micro concrete roofing tiles which is created from utilizing waste along with low cost machines and equipments. This technology innovation have secured jobs especially for women workers. This technology requires low investment with roughly around
200,000 INR, which can be easily fit into the Prime Minister’s Employment Generation Programme [PMEGP] scheme and likewise. The second technology innovation is that of creating Eco Kiln technology where burnt bricks are created from soil along with industrial waste. These are very high quality, low breakage, and minimal pollution bricks. One of the biggest advantage of this that it creates 40 direct jobs where in even women can be easily employed.

Value innovation accelerates new income opportunities and expansion of one’s wealth through discarded material. In Punjab and Haryana, there is huge hue and cry over pollution created due to burning of wheat after it has been harvested. Alternatively, these wheat straws can be burnt in an oxidizing atmosphere which releases fumed silica. This one kg of fumed silica is sold at 22,000 INR in the Gulf Market as that is used as additives in concrete for high performance.

Fly ash bricks, clay bricks and concrete products are some of the other example of technology innovation for creation of employment and micro to small enterprises. Each such enterprise provides employment to 6 – 10 individuals and fits well within the government schemes. Instead of throwing away the organic waste, technology compresses the waste from rice and wheat field and produces briquets out of it which are sold at high price. This way it adds value to local resources along with providing high economic returns. With such high potential in such innovation, it however has not been able to scale up due to wide gaps between innovation and market. This needs to be bridged with right technology. Hence to mitigate these challenges there is a need for close coordination between research institutions, business affiliates and financial institutions. In doing so there is a need for adequate information, credit and technologies to serve the upcoming enterprise.