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In my presentation, I hope to show how Kerala can climb the ladder to a knowledge economy. The economic growth and development of a country do not happen in one day. It involves different steps. One could think of a ladder, where at each step, individuals and indeed the country itself, learn and accumulate knowledge while moving towards a knowledge economy. And likely, you cannot jump to the final step directly from the first. Here I will talk about the capability approach to development from a micro or firm-level perspective. Indeed, when we talk about production, firms are the actual actors behind the production and they play a crucial role in the accumulation of knowledge at a macro level.

It's intuitive to think that business firms know how to build things: they let us fly from one continent to the other, build computer networks to communicate from different parts of the world and they have a central role in the mass production of vaccines to fight a pandemic. Let's take an example of the firm Luxor. Luxor produces pens now. If it were to enter a new market, likely it can produce sophisticated calligraphy pens for drawing and likely, it cannot produce trucks. Instead, BMW India that produces cars, could use their capabilities to produce trucks as well. So, it's very important to understand the "already existing capabilities" to understand where one stand in terms of firms, individuals, to see where one can go next, which is the step that Kerala can take next given where she is now?

Capabilities and skills are difficult to measure. Even though we don't observe capabilities, we know which firms produce which products. From this information, we can try to derive the capability structure of firms. Such a data-driven approach helps in measuring relatedness between products and overall coherence of the production of the firm i.e, how related are the products they produce. Here relatedness (or proximity) of products depicts proximity of capabilities, (or ability to produce products). For more details on this measure, please refer to Dosi, Mathew & Pugliese (2020). We find that firms producing a coherent set of products

perform better because when they expanded their production, they moved to products that were similar in terms of capabilities to the ones they were already producing. This is why it is important to understand the existing capabilities of firms in Kerala to understand where Kerala stand, to look into which are the next steps in the capability ladder she can move to.

On one side there are firms who provide jobs, and on the other side, we have a lot of educated unemployed. Clearly, there is a lot of discrepancy between these two, or in other words, a matching issue between the jobs that are created and the skills that people have. The problem of educated unemployment is one of the biggest challenges in Kerala. The question is which kind of policies can absorb all these educated unemployed people? When we look at the opportunity space in front of us, we should not only look at firms, but also what people in Kerala can do. I believe that the Government of Kerala is on the right path with the idea put forth in the budget on providing the right skills to the people. However, one should be very careful in understanding which are the right skills. The skills should not only relate to the individual abilities of the people but also relate to what organizations or firms want, relating to what firms and organizations do now and what they can do in future.

In the same way we measure capabilities of firms, this can be done, also at the individual level - given the abilities of an individual, which are the skills that will help her to - let's say - climb the next step of the ladder. To repeat, it is important to understand which step of the ladder you are in, because, only then you can evaluate which is the next level you can achieve. This is true for both firms and also for individuals.

No doubt, there are several challenges ahead. But what one could hope to build is an ecosystem that will foster innovation and growth. As Marianna Mazzucato argues, states should create markets rather than fixing them and when the state wants to create markets it will be able to when it has the ecosystem that surrounds it.

I want to conclude by emphasizing this point - at a policy level, it is important to create all the building blocks necessary. What is required is to prepare a fertile soil to be able to grow a seed when a chance arises, because "chance favors the prepared mind" (Louis Pasteur). What one expects from Kerala is to lead and show the way forward so that this model can be used also for other states and for countries around the world.