A popular belief is that India is currently in the driver's seat when it comes to Biotechnology.

Dr. Krishna M Ella, Chairman & Managing Director, Bharat Biotech International Limited, gives the flip side and throws light on the various flaws that the country is currently experiencing.

The Indian biotechnology sector is believed to be growing by many and I too am a part of it, but I see numerous flaws in the approach that the country has taken in successfully converting this opportunity into a robust module. There are many glitches from the government side, the educational front, the personal agendas, the idea of replication, etc.

India had two models to choose from when it comes to biotechnology - Bio-generic model, which follows the generic mode that the Pharmaceutical industry had taken and secondly, go for innovation, which means creating own IPRs, own research, own development, etc.

Unfortunately, India is currently riding on the bio-generic model. It is unfortunate because China and even Korea is far ahead using the same model. So, while the market is available, it will not be easy for India. This could be the first flaw. Another major failing of the country is in its methodology towards Biotechnology. We are competing with each other. For example, today, Karnataka, Andhra Pradesh, Tamil Nadu, Maharashtra, etc are competing with each other rather than competing with the globe. It will definitely yield concrete results and the country be a favourite in winning race against global giants if we, as individual states remove our personal agendas and compete with global players, united as a country.

Another weakness of our country is its outlook towards Biotechnology. We are strong believers of duplication. For example, once the Genome Valley came, every state wanted to replicate it. Here, the states are forgetting that while the country is diverse, it also is Bio-diverse. States, which have enough bio-diversity should utilize it and strategise on it. Each state should identify its strength and work on leveraging on it.

States should understand the requirement of the society and develop models around it. For example, Orissa can go for a Marine Biotechnology Park & Delhi-Haryana-Punjab together could go for a Food Biotechnology Park. Duplication of one successful model thinking that it will be successful in another state without understanding the strengths and the requirement of the society would be a complete waste.

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Another flaw with the country is its complete lack of thinking in terms of grabbing an opportunity. We wait for others to think and grab an opportunity and then follow them. For example, 5 years back when someone said that the demand for biotech equipment is not present in the country, it would have made sense as the demand was mainly from academic institutions. But today the industry intake has far overtaken the academic demand. There is a huge demand for ancillary equipments in the country. So why does somebody not think of opening up a Biotech Equipment Park in say Faridabad?

Another major damage, which can relate to the previous flaw, would be our approach towards educating the students. What we teach the students in the plethora of BT colleges that have sprung up in every nook and cranny of the country is that the colleges only tell them about Biotech research, but have they ever tried to tell the students about IPR, medical equipment making, validation equipments, regulatory matters, etc? Another vulnerable issue, and a continuation of the previous one is that the country is short of people with Postdoctoral. In US, they drive Science and technology. Here, the University, the UGC, the AICTE system, etc are all giving permission to private players to setup colleges. But I strongly believe that a paper degree is of no use to the industry. Another major failure comes from R&D.; We do not allow our scientists to take risks. If the scientists don't take risks, there can never be any innovation. The main reason for it is the shortage of funding and the fact that the scientist wants to keep his job. So, it is clear that one of the most significant flaws is the lack of strong skill-sets. No doubt, the country is moving ahead, but it is expecting too much in too short a time. It's like making tea. I make it or somebody else makes it, the taste will almost be the same. But if I try to make a connoisseur's delight and so does a chef, I will just be barred from the kitchen for the rest of my life. That's what I mean by skill-sets.