

Indian Economy: Some Contemporary Perspectives
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Lecture 14
Indian Economy: Industrial Policy 2

So, let us start. So, we will be now focusing on the part that we are left. So, we were discussing about the productivity. So, now we will be focusing on what were the sectors which we took over the other sectors and when we had undertaken the liberalization measures then which all sectors become laggard and which sectors become the leading sectors. So, in the light of those developments, we will be now focusing on the productivity.

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India's Industrial Development: Analysis and Perspectives

- India's industrial development
 - Productivity growth: 1990s to 2000s

Year	Fixed capital per unit(Rs. in Lakhs)	Persons per unit	GVA per unit(Rs. in Lakhs)	GVA/fixed capital	Labour Productivity(GVA/persons engaged)
1990-91	121.30	75.15	55.89	0.46	0.74
1995-96	258.95	75.96	121.14	0.47	1.59
2000-01	304.42	60.85	135.87	0.45	2.23
2005-06	433.03	65.01	260.20	0.60	4.00
2009-10	850.55	74.23	432.52	0.51	5.83

Source: Jain, H. (2015). Manufacturing growth & employment pattern in India since 1990s. *The Indian Journal of Industrial Relations*, 412-424.

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So, I found this particular table quite useful. So, the references will remain the same like previous lecture. So, you can refer the same reference and reading materials and you can also go through those papers and in case you did not find those reference you mention. So, I have sighted wherever I have referred any table or any text. I have sighted, I have given the proper reference to that so you can refer that also.

So, Jain H in the paper manufacturing and employment pattern in India since 1990 that appeared in Indian Journal of Industrial Relations. It is one of the important documents to go through and it provides a quite deep insight about the productivity growth in India. So, the

fixed capital per unit that we see it shows about the investment of capital. So, fixed capital that you can see so 1990 it was just 121 lakhs.

It increases in 2009-2010 up to 850 lakhs which means that there is a huge amount of capital going into the fixed assets which means that there is capital augmenting process taking place. Persons per unit if you see it is quite stagnant and even it has gone down. In 1991, we had 75 and then it has gone down 60 and 65 and 74 and then we have gross value added per unit per lakh this is how.

So, you can also see that it is output per unit per lakh whatever we are going for fixed capital it is also increasing which means that firms are now orienting more towards the post reform period saw a lot of capital intensive investments and most of the firms which were in the services sector and even in case of manufacturing certain sectors were quite focusing on going for expansion and investing more in capital.

So, GVA fixed capital you can see that it has increased 0.46 to 0.60 there is a small moderation which is 0.51 here otherwise in most of the cases it has gone up. Now labor productivity you can see that it is 0.74, 1.59 so whatever the output produces per person engage. So, the per labor output per labor you can see 0.74 this has also improved. So, that might be because this side the capital investment has been more.

So, capital intensive the machinery, so it may not be sure that whether the labor employment has gone or not, but output has gone up. So, that could be that the labor has become more productive by using technology or maybe it may happen that earlier 10 people were producing 50 output, but now only 5 people are producing that 50 output. So, that kind of trend we can see here also.

So, after liberalization this has been the common trend and it can be seen even in the modern era also and if you compare from the historical perspective then at that point of time our focus was on creating employment, investing in certain activity just to make sure that domestic (03:51) some welfare-oriented policies were undertaken. Though, after sometime it became burden and we had to think about the efficiency of those institutions.

But post liberalization phase when we opened our economy for global competition and global firms had to compete with global markets at that time we can see that and this has been the global trend. So, we can see that compared to all other countries the firms in India also

especially in manufacturing they were taking measures. As per the author Jain he mentions that certain sectors for example metals and all were overtaken by the food and other small-scale industries and that resulted in the increase in the capital, but the output increase.

GVA increase, but it did not materialize in terms of increase in employment. So, in post 1990s the growth that we see in terms of industrial development it has not been very supportive in terms of labor employment, but in terms of growth, output and in terms of numbers it has become quite attractive and it has contributed a lot. So, that has to be appreciated and that comes out from this table.

Though, there are arguments for and against such that it was required and it was the time that we should have gone for the more capital intensive technologies, but then the opponent say that we have to think about the welfare of the labor and certain labor laws were also not and at that point of time the policy maker should have paid more attention on moving or having the smooth transition from the labor intensive to capital intensive.

So, the sudden rise of petrochemical and petroleum and chemical fertilizer and all these sectors led to the increase in employment, but it was not that much they were more focusing on the capital-intensive activities.

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• Sectoral average annual growth in real value added in organized manufacturing sector

Activities	1980s	1990s	2000s
Radio, television and communication equipment	28.1	14.8	1.8
Food products and beverages	18.6	8.6	11.1
Wearing apparel, dressing and dyeing of fur	14.3	15.5	9.0
Medical, precision, and optical instruments	11.6	0.7	10.5
Chemical and chemical products	11.1	10.1	3.8
Basic metals	0.5	17.5	3.3
Electrical machinery and apparatus	9.7	15.8	12.3
Motor vehicles, trailers, and semi-trailers	6.9	14.8	16.5
Fabricated metal products	1.9	13.4	15.5
Wood and wood products	7.5	-13.5	14.8
Furniture and other manufacturing	4.1	29.7	13.0
Coke, petroleum products and nuclear fuel	-0.1	0.6	19.4
Textile products	4.9	12.8	8.0

Banga, R., & Das, A. (Eds.). (2012). *Twenty Years of India's Liberalization: Experiences and Lessons*. United Nations Publications. Table: 5

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So, here it is I tried to compare so sectoral average annual growth that we see in real value added, organize manufacturing segment then we see that in 1980s we had the growth in radio television, communication equipment of 28.1%, but it reduce to a 1.8 and this was also one of

the major and second we have food product and beverages this has been also moderated in 1990 it came down heavily 8.6.

Then wearing apparel then we have a dressing and dyeing of fur then it also declined, what we can see in terms of coke, petroleum products and nuclear fuel not that much labor intensive. It has gone up 19.4. Similarly, we can see furniture and other manufacturing it has also gone. It has seen tremendous growth 29.7%, wood and wood product 1990s that might be because of the restructuring process that we were observing in certain industries.

Fabricated metal products then we have motor vehicles there is tremendous growth then we have electrical machinery. So, we can see the all capital-intensive machinery incentive sectors started doing well and this resulted in increase in output, better growth, more GVA, value additions were more, but in terms of increase in employment it has not been that great. So, 1991 trap that we see we often say that 1991 was a trap for India because we opened our economy.

But at the same time, we had to experience certain distortions which took almost a decade to recover and then we had to go for a skill transformation and for that we had to go for new manufacturing policy in 2011. So, we realize very late that when we were opening our economy we have to think about the skill set of the labor force that how they will be competing with (08:09) competitive firms.

And how our domestic firms will be competing with them. So, we did not pay that much attention, but in 2011 when we realize that we have to do it so we had to go for new manufacturing policy.

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- India's industrial development
 - Gross Value Added by Economic Activity

Sectors	2011-12	2015-16	2018-19
Agriculture, forestry and fishing	18.5	15.4	14.6
Mining and quarrying	3.2	3.0	2.7
Manufacturing	17.4	18.1	18.1
Electricity, gas, water supply & other utility services	2.3	2.1	2.3
Construction	9.6	8.2	8.0
Trade, repair, hotels and restaurants	10.9	12.0	12.9
Transport, storage, communication & services related to broadcasting	6.5	7.0	6.5
Financial services	5.9	6.4	6.0
Real estate, ownership of dwelling & professional services	13.0	15.5	15.8
Public administration and defence	6.1	5.4	5.8
Other services	6.6	6.8	7.3
Total Gross Value Added	100	100	100

Source: Annual Report 2019-20, MOSPI, Government of India.

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So, I have taken from annual reports 2019-2020 so this appears to be that agriculture forestry is having the share of 14.6 and then manufacturing it is 18.1 2011-2012 it was 17.4. So, just for the recent figures I have given and certain sectors in services you can see that all the services are showing some increase trend or they have been consistent. So, in this particular table what comes out is that the manufacturing is quite a stagnant kind of sector.

Even construction we can see during 2011-2012 it was 9.6 it has come down, it is still coming down and mining and quarrying we can see it is still quite stagnant, but other sectors especially in services, financial services then we have real estate then real estate ownership, dwellings and the professional services it has done well. So, service sector we are saying more of a contribution than the manufacturing. So, this has been one of the major contributions.

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- India's Industrial Development
 - Labor falls in the "Concurrent List", subject to both center and states.
 - **National Commission of Labor (NCL)** was set-up in 2002 to streamline rules and regulations in the existing labour laws.
 - NCL had recommended the consolidation of central laws into four groups:
 - (a) Wages, (b) Industrial Relations, (c) Social Security, (d) Occupational safety, health and working conditions.
 - The Ministry of Labour and Employment, in 2019, introduced four bills on labour codes which include codes on wages, industrial relations, social security and occupational safety, health and working conditions.
 - All the codes have been passed by the Indian Parliament in 2020.

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Then I thought I should be also focusing on certain developments related to the wage law because we discussed the labor policies. So, we should be also discussing the different wage laws in the recent period that we have designed. So, since we have already discussed during when we were discussing agriculture sector then at that time we had discussed state list, union list and the concurrent list.

So, labor falls in the area of concurrent list which is the subject of both state and center and state both can decide about the structure of the policy and may also differ on certain aspects, but since it is concurrent list. So, Central government takes over in certain case free to adjust their requirement with the illustrated policies or implemented policies of the Central government.

National commission of labor was setup in 2002 to streamline the rules and regulations in the existing law and this law was required because for the first time we had gone for some kind of regulatory changes and made to the wages, then we had to go for industrial relations, how the employer and employee should have the relation whether the employer has full control on the employee and whether employee can go for strike and those things.

Then there is a social security dimension that we have always considered as one of the prerequisites of the labor laws because in India we as welfare state we always go for contributory social security programs and then occupational safety, health hazard and the working conditions. So, these are all labor laws that designed. Ministry of labor and

employment in 2019 introduced four bills on labor courts which includes courts on wages, industrial relations, social security, occupational health and hazard.

So, this is what considered to be the best document that we have to refer and all these courts were passed by the parliament in 2020 and it has been notified through gadgets. So, now there is a whole lot of controversy about whether this particular act will or whether the implementation of these policies will be conducive for the labor, the experts working and then you have labor.

They say that for the market it is good because now we are in the era where we are focusing more on the market-oriented economy. So, labor law may not be that strict, but there is always an apprehension that with the implementation of such market-oriented labor laws giving more or I would say pro-employer labor laws there is high chances that they can be exploited by the labor.

There is a whole lot of controversy about how this wage code is going to be decided. The minimum wage floor that we have that as Central government decides how it is going to be decided. So, there is a whole lot of controversy about this, but at present we have gone for complete revamping of our labor laws not only on wage courts, but also on industrial relations and others.

During pandemic 2020 government had gone for suspension of labor laws and then in certain states it has been restored, but in certain states they still relax just to make sure that we have certain activities supporting the lockdown and other officials' measures undertaken at that point of time and there was lot of apprehension that point of time there will be some firms moving from our neighboring countries to India.

And that also gave us one opportunity to revise our labor laws immediately, but at that time also we created and it became a controversial issue because it was quite haphazard and it was not very clear that how this particular labor laws will be relaxed and how it will be to what extent labor will be impacted and how government is going to ensure that they are not having any wrong intentions in going for such type of relaxation.

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- **India's industrial development**
 - In 2011, **National Manufacturing Policy (NMP)** was implemented to increase the share of manufacturing sector in GDP to 25% and create additional 100 million jobs by 2022.
 - NMP (2011) allowed to establish the "National Investment and Manufacturing Zones (NIMZ)" as an industrial hub to augment to production and exports.
 - Some states took the lead and now have become hub of manufacturing certain products. For instance, Gujarat accounts for more than 60% of chemical exports.
 - Tamil Nadu experienced a heavy increase in production and surge in employment in motor vehicles, trailers and semi-trailers during 2007 to 2014.

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Then in 2011 as I mentioned we have gone for national manufacturing policy. It was one of the ambitious programs of the government. Under that, it was decided that the manufacturing sector as I just referred it two slides back that the share of manufacturing is just 18%, it was decided that the share of manufacturing should go up to 25% and it should create additional 100 million jobs by 2022.

And then it was also decided to have a national investment and manufacturing zones. So, because of that we had a special economic zone in the country in different parts of the country and then special economic zones became the hub of economic growth and development, export promotion zones. So, this national manufacturing policy gave a lot of emphasis on not just in terms of manufacturing.

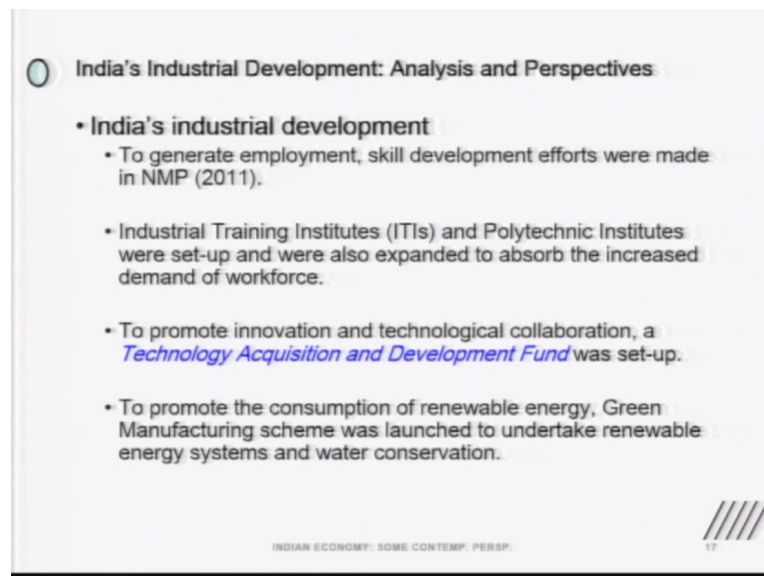
But it also gave emphasis on green energy, the encouragement to have a green energy, renewable energy applications in the manufacturing process it also gave importance to how we can go for technological upgradation, there were lot of incentive given for mutual collaborations and even foreign collaborations. So, these are the part of the new manufacturing policy that we implemented in 2011.

Some states took the lead and Gujarat became the hub of pharmaceutical industry, chemical exports. Tamil Nadu experienced a heavy increase in production and surge in employment in motor vehicles, trailers and semi trailers during 2007 to 2020 and it is continuing and there

is a whole lot of impetus given on the IT industry, special economic zones then you have a semiconductor, special economic zones.

So, each and every state whatever strength they have, they are competing on to create special economic zones, but there are certain pro and cons of that, that we will be discussing at the end. So, let us focus on this particular part.

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So, for the first time in national manufacturing policy we had gone for certain rules, certain revamping of the skill set of our labor force because most of the major industries players were complaining to the government that they are not able to get the workforce required for their reoriented manufacturing process and they are not able to compete and in order to make sure they get the skill set, the worker should have the proper skill set.

There should be a training program launch. So, based on the request of the industry government of India incorporated that for most of the it is, industrial training institute plus we have polytechnic institute. So, these institutes were given extra money to develop and expand and to reorient the demand from the industries and train the students and the future workers in the similar manner so that they can support the industrial growth process of the large industrial houses.

And this has resulted in a positive impact on the industrial output as we can see that the vocational trainers are being employed by large number of industries. Though, we have a thousand of engineering colleges, but the skill set that is required by the institutes there is a

huge gap and that is why it was suggested and it was implemented by government also at that time.

Then we had for innovation and technological collaboration it was technology acquisition and development fund it was setup, to promote consumption of renewable energy as I told the green energy were given incentive and this technological acquisition development fund was created just to have a collaboration across technological development that is conducive for the growth and development industrial sector.

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So, the first special economic zone was introduced on April 1 2000 and separate special economic zone act was enacted in 2005 which became operational in February 10, 2006. Under the new act, Central government became simply the facilitator and it had defined certain regulatory norms and space was open for the and there were lot of space given to the private sector for the development of special economic zones.

And these special economic zones enjoyed the fiscal incentive for 15 years. So, first 5 years 100% tax exemptions then 50% for the next 5 years then 50% from whatever you export and whatever you retain from that. So, for 15 years these special economic zones and export promotion zones were given incentives in terms of setting a business.

Some states did well and some states were laggard those states which were poor on socioeconomic parameter they did not pick up, but some states which were doing average or they were good, they take the lead and we can see that there is stock difference now.

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- India's industrial development
 - Structure of India's EPZ/SEZ Sector

Period	Number	Ownership	Area (in hectare)	Type of Zone
1995-2000	7	Central government: 7	894.40	Multi-product: 1 Bi-product zones: 1
2000-2006	12	State government: 5 Private sector: 7	1,817.50	Multi-product, sector-specific, service zones
2006-2011	581	State governments: 119 Private sector: 462	63,608.27	Multi-product: 24; sector-specific: 164; Service: 371

Source:
Goyal, A. (2014). *Handbook of the Indian Economy in the 21st Century: Understanding the Inherent Dynamism*. Oxford University Press, Chapter 23

http://sezindia.nic.in/upload/5f419f1ef126MX-M452N_20210105_162458.pdf (accessed on January 20, 2021)

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So, we can see that in 1995 the number of special economic zones, export promotion zone, EPZ and SEZs you have a Central government 7. It was the area acquired by 894 so 1,000-acre area hectare was considered as the need for required for this so area was 894. The multiproduct so type of zones (19:42) multiproduct 1, bi-product 1. You can see that by 2006-2011 we have the number of special economic zones gone up to 581.

And the area it has gone up to 63,608 and multiproduct we had 24 then sector specific we had 164 and the service we had 371. So, we can see from one multi product and bi-product one in 1995-2000 we have an increased the multiproduct 24 then we have a sector specific 164, 371. So, this shows that the tremendous improvement in this and private sector has taken a lead here in private sector during 2006-2011 it is 462.

I have taken it from handbook of Indian economy 21st century from the Goyal and also on the SEZ India website.

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- India's industrial development
 - Direct employment and investment in SEZs

Type of SEZ	Employment (Number)				Investment (Rs. in Billion)			
	1998	2000	March 2012	Sept. 2020	1998	2000	March 2012	Sept. 2020
Central government	25,625	81,372	213,853	1,80,485	8.97	17.84	114.86	20,872
Transition phase	-	-	20,566	96,918	-	-	76.38	14.436
Newly notified	-	-	-	19,65,515	-	-	1,846.41	5,59,810
Total	25,625	81,372	234,419	2,00,098	8.97	17.84	2,037.65	5,95,118

Source:
Goyal, A. (2014). *Handbook of the Indian Economy in the 21st Century: Understanding the Inherent Dynamism*. Oxford University Press. Chapter 23

http://sezindia.nic.in/upload/5f418f1ef128MX-M452N_20210105_162458.pdf (accessed on January 20, 2021)

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In terms of employment if you see then it becomes really interesting to see. I have updated this data till September 2020 and you will find that in 1998 it was only 25,625, but in September 2020 it has gone up to 1,80,485 and transition phase that we had in that it is 96,918, newly notified that we have it is about 19, 65,515 employment in terms of actual numbers.

So, in total it is 22 lakhs then here we have the investment. In terms of investment, in terms of billion rupee you will find that now it has gone up to 5,951 in terms of the investment that we have made, it was just 8.97, but now it has gone up to Rs. 5,951 billion investment in this. So, you can see that the certain orientations that we made. So, in the beginning we are just going for blind development of industrial development.

But now when we reoriented keeping in mind the external outlook change we find that there is whole lot of effort to expand the industrial base in the country.

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- India's industrial development
 - Annual growth rates of SEZ Exports and Total National Exports

Year	National	SEZ (Rs. Billion)	Share (in %)
2005-06	4657.48	228.40	3.17
2006-07	5828.71	346.14	3.78
2007-08	6680.00	663.38	6.43
2008-09	8680	996.89	7.41
2009-10	8633	2,207.11	16.76
2010-11	11395	3,158.68	18.11
2011-12	14825	3,644.78	16.82
2018-19	23077	7011.79	21.0

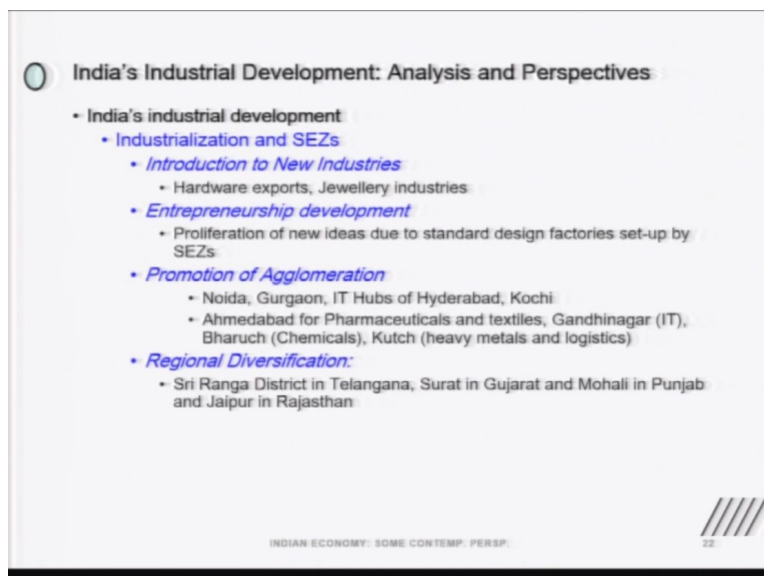
Source:
Goyal, A. (2014). *Handbook of the Indian Economy in the 21st Century: Understanding the Inherent Dynamism*. Oxford University Press, Chapter 23.
http://secdia.nic.in/upload/59419f1ef128MX-M452N_20210108_152458.pdf (accessed on January 20, 2021)
<https://india.rti.org.in/docs/Publications/PDFs/119T9D072F7D68E24F94879AD8F99E0F9010.PDF> (accessed on January 20, 2021)

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And total national exports so this is the national exports that we have in terms of billion and you will find that in terms of SEZs we have these. In terms of percentage share in 2018-2019 it is 21%. So, which means that from 3% from 2005-2006 it has gone up to 21%. So, this shows that how this particular policy has benefitted. So, India manufacturing policy 2011 that is why it is (()) (22:21) another water shed era for the industrial development because we had to reorient, reframe the industrial production process.

And we had to give importance not only to industrial development in the conventional context, but also in the contemporary context.

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Then there are certain positive side of the industrialization and specific economic zones that we have, for example introduction to new industries. Some states which were good in certain activities, but they did not have a proper scope to expand that activity. So, this special economic zone gave incentive to establish those sectors which were quite a trademark for those states.

For example, for jewelry industries Gujarat has done well and that is why it has setup hardware exports, Jewelry and all and further in some states like for example in Haryana you have a Gurgaon then in UP you have Noida there also we have a special economic zones especially in Andhra Pradesh, Karnataka, Tamil Naidu there you have even in Telangana there you have Hi tech city in Telangana is one special economic zone that gave boost to the industrialization process and this also became one of the new industries that you have.

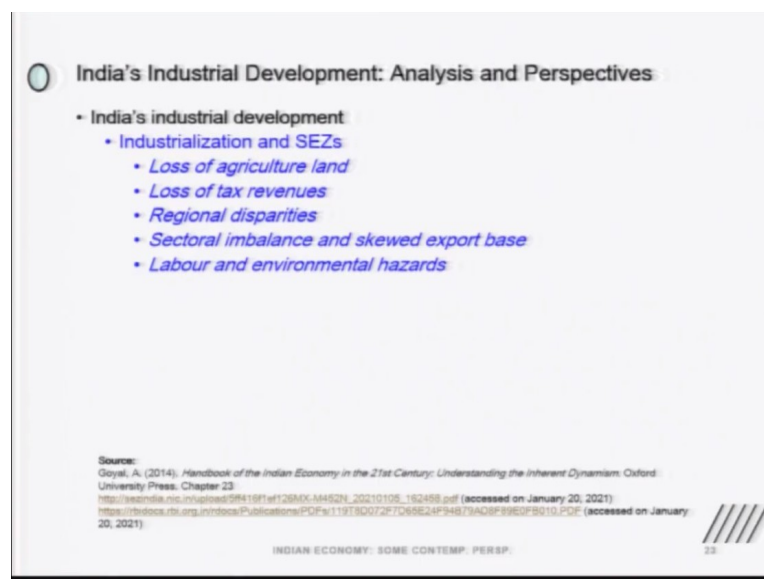
Then here you have the entrepreneurship development. So, in terms of entrepreneurship development what happens is that some measures were undertaken by the SEZs in terms of standard design factories and they were also given certain incubator facilities and because of that some ideas and some individuals took lead and they had a capacity and they were given incentive to establish and firm and it became a success.

So, Moser Baer is one such example where it became one of the largest suppliers of CDs and different devices and also in some areas some individuals took interest and develop industries and they later became one of the largest suppliers. Promotion of agglomeration is one aspect for example for this special economic zone we can see that development of Gurgaon, Noida, IT hubs of Hyderabad.

Then we have a Kochi then in Bangalore you have a Whitefield and all those areas in Ahmadabad you have a pharmaceutical and textile. In Gandhinagar again, you have an IT in Bharuch you have a chemical, in Kutch you have heavy metals and logistics. Regional diversification has also become one area because one area gave one incentive to expand this particular context.

So, for example, Ranga Reddy District has become one area where you have agglomeration happening, Surat in Gujarat, Mohali in Punjab and all.

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They are negative sides of this. For example, loss of agriculture land, loss of tax revenues because you give lot of incentive regional disparities because you simply focus on one area and not another. Sectoral imbalance and skewed export base because you are focusing on certain activities, but not the conventional one. Labor and environmental hazard, certain areas in certain working conditions, in certain special economic zones of the working conditions are not that good and labors are exposed to certain rules that were not conducive.

So, I have taken it from Goyal if you want you can refer it due to shortage of time I am stopping it here. Thank you so much.