

Infrastructure Economics
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Module – 03
Lecture - 12
ENRON: A Case Study

In this lecture I am going to present the cases study of Enron, which is one of the very controversial cases of our project in India. And through this cases study, we will have to understand that how not only the investment makes a change, but investment needs or the supports for the completion of the project. Let me begin with what was the history of Enron.

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The History of ENRON

- In 1992, the Enron Corp., US based multinational energy trading company announced that it would build a \$3 billion natural-gas power plant in Dabhol in Maharashtra.
- The project was to be the poster child of economic liberalization in the country as it was the single largest FDI in India's history.
- In a joint venture with U.S. companies General Electric and Bechtel, Enron created an Indian subsidiary, Dabhol Power Co. DPC.

In 1992, the Enron Corporation which was the US based multinational energy trading company has announced that it will build a 3 billion natural gas power plant in Dabhol in Maharashtra. This was to be the poster child of economic liberalization in the country. As we have seen, if you can just go back in 1991, on 24th July 1991, government of India has announced the new industrial policy and which was completely different from the previous policies of industrialization in India.

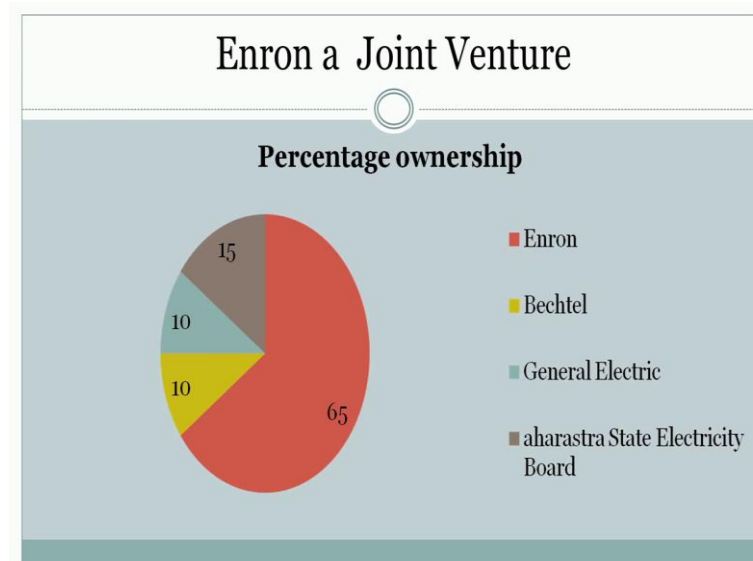
We can also see here that India had a long history of industrialization by the public sector and private sectors were not really supported for varieties of investment. They were not having permission to invest in many sectors and India continued with a complete state-

run industrialization model for many years.

In 1991 due to the economic crisis which India has faced, government and policy makers have decided to work on a new economic model and that economic model is named as economic liberalization or India was basically coming out from the previous way of economic growth and development to the new way of economic growth and development through the help of more private participation from outside the world. And looking for more outward industrialization instead of looking for what, in what approach a country can have for protecting their local industries and investors.

We have seen that in case of Enron, which was one of the first case soon after the economic refund process with a 3 billion dollar investment. It was not basically a small investment, but it was the joint venture with US companies especially General Electric, Bechtel, and Enron, which has created an Indian subsidiary called Dabhol Power Corporation.

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So, if one can see here the percentage ownership of different partners in Enron, Enron itself had the 65 percent investment, while the Bechtel had little less investment - 10 percent, General Electric had the 10 percent investment and rest of the investment was by the Maharashtra State Electricity Board. So, it is the case of joint venture with huge investment from outside, because only 15 percent investment is from the Indian side, but 85 percent investment was from outside. So, what are the basic statistics which is impressive and which cannot be ignored when we are talking about infrastructure

projects in India?

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Some Statistics on Enron

- The total project cost was \$2.9 billion.
- The project was 2,184 megawatts, which Enron claimed the largest gas-fired power plant in the world.
- The plant closed in June 2001, due to a payment and contract dispute between the Maharashtra state government and the plant owners.
- Enron said it incurred over \$1 billion in costs for the plant.
- The sunk-cost can't be recovered in case of Enron

The total project cost was 2.9 billion dollar. The project was 2184 megawatts, which Enron claimed the largest gas-fired power plant in the world. The plant closed in June 2001 due to the payment and contract dispute between the Maharashtra state government and the plant owners. Enron said it incurred over 1 billion dollar cost for the plant. So, the sunk cost cannot be recovered in case of Enron. So, let we also see here what was the timeline of Enron project in India and starting from 1992 how it has gone to the level of closure.

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Timeline of ENRON Project in India

Year	Events
1991-1992	India opened its power sector to private foreign investors
Feb. 1992	Enron began investigating opportunities in the Indian power sector
May 1992	Enron executives delivered their ideas to the Indian power secretary, who was in the United States to encourage foreign participation in the Indian power sector.
June 1992	Enron and General Electric signed a memorandum of understanding with the Maharashtra State Electricity Board (MSEB) to build the Dabhol project. The operating entity was the Dabhol Power Company, a joint venture. Enron was the majority owner, while General Electric and Bechtel each owned 10% shares.

We are finding here that it was basically the year when Enron had started investment in 1991 to 92. As we have already seen that this was the year of Indian economy to depart from the completely controlled economic model to the liberal economic model, allowing investors to join the market, private foreign investors to come and join the hand in certain sectors. And power sector was the first example where India opened it is venues for the foreign investors.

In February 1992, Enron began investing opportunities in the Indian Power Sector. In May, by May 1992, we can see here that Enron executives delivered the ideas to the Indian power secretary, who was in the United States to encourage foreign participation in the Indian Power Sector. By June 1992, Enron and General Electric signed a memorandum of understanding MoU with the Maharashtra State Electricity Board to build the Dabhol projects.

The operating entity was the Dabhol Power Company, a joint venture. Enron was the majority owner as we have seen in the pi diagram with the 65 percent of the ownership, while General Electric and Bechtel had the 10 percent share and rest of the share was the Maharashtra Electricity Board. So, Enron had a hope because India was one of the bigger economy at that time, also in terms of consumers, and this project was very much target oriented project, where US company were looking for a successful completion.

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ENRON with Hope	
June 1992- Dec. 1993	The parties negotiated the terms of the deal. Enron obtained the necessary approvals for the project from the Indian government.
Dec. 1993	The Dabhol Power Company and MSEB signed the power purchase agreement.
1994-early 1995	Enron seeked and obtained \$635 million in financing, insurance, and loan guarantees from Bank of America, ABN Amro, a group of Indian banks, the U.S. Export-Import Bank, and the Overseas Private Investment Corporation (OPIC).
Jan. 1995	Commerce Secretary Brown visited India, with Ken Lay, and oversees signed of loan agreements by the Dabhol Power Company with the U.S. Export-Import Bank and OPIC.

And in June 1992 to December 1993, the parties negotiated the terms of the deal; Enron obtained the necessary approvals from the projects from the Indian government. And this

was the time when, even the government had not really, government of India had not really created any condition in which investment would have been stopped. but government of India has given an opportunity to the investors to join the power company.

December 1993, the Dabhol Power Company and Maharashtra State Electricity Board has also signed the Power Project Agreement. By 1994, by early 1994 Enron seeked and obtained 635 million dollar in financing, insurance and loan guarantee from Bank of America, ABN Amro, a group of Indian banks, the US Export-Import Bank and the Overseas Private Investment Corporation (OPIC). By January 1995, Commerce Secretary Brown visited India with Ken Lay and oversees signed a plan agreements, a loan agreements by the Dabhol Power Company with the US Export-Import Bank and OPIC.

So, by 1995 we are finding that there are only hopes and hopes coming in the favor of Enron and whether it is the central government or the state government, both were really helping this particular company to get in and to start the power projects. And with this hope, we are finding that in 1995, spring 1995 the politics especially in Maharashtra, a position lines on the election in Maharashtra in March.

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The political economy of ENRON	
Year	Events
Spring 1995	The opposition alliance won the election in Maharashtra in March, and in May the new government appointed a committee of state ministers (the Munde Committee) to review the Dabhol project.
Aug. 1995	The Munde Committee issued a sharp critical report that recommended scrapping the Dabhol project. The state government acted on this advice.
Aug.-Dec. 1995	Enron entered arbitration and asked for \$300 million compensation. The state government filed suit in September to void the agreement, alleging fraud and misrepresentation. U.S. officials, including Energy Secretary Hazel O'Leary, warned India that its action will discourage foreign investment.
Nov. 1995	Rebecca Mark, Chairman of Enron International, met Bal Thackeray. Negotiations resumed between Enron and the state.

And in May the new government appointed a committee of state ministers, the Munde committee to review the Dabhol project. By August 1995, the Munde committee issued a sharp critical report that recommended scrapping the Dabhol projects; the state

government acted on the advice. So, in case of Enron from 1991 to 1995 before Spring, we are finding that there was really a very hopeful condition. But soon after the election result we are finding that there is a new term in the Enron project and then the controversy started.

By this, between August to December 1995, Enron entered arbitration and asked for 300 million dollar compensation, because the committee has recommended for scrapping the project and the state government also agreed for scrapping the project. So, Enron has entered into the arbitration and ask for the compensation of 300 million dollars. The state government filed suit in September alleging that, alleging fraud and misinterpretation of the US officials including Energy Secretary and Energy Secretary Hazel O’Leary also warned India that this type of action will discourage the foreign investment from United States side.

By November 1995, Rebecca Mark, Chairman of Enron International, met Bal Thackeray. Negotiations resumed between Enron and the state. Further hope to Enron – with this visit in 1995 with Bal Thackeray there was further hope that Enron will again start functioning. The state announced it will accept a revised agreement, that was the January 1996.

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Further Hope to Enron	
Jan. 1996	The state announced it will accept a revised agreement.
Feb. 1996	The state and the Dabhol Power Company finalized the terms of the revised agreement.
1996-1997	Legal challenges to the project by Indian groups continued, but are eventually dismissed.
1997	Enron obtained approval from the Indian government to expand the Dabhol liquified natural gas terminal to allow it to process 5 million metric tons annually.

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Indian government to expand the Dabhol liquified natural gas terminal to allow it to process 5 million metric tons annually. So, with a slight controversial conditions especially which we have seen in our previous example, that Enron had a very tough time especially in 1995, when Enron had no other choice except to go for the arbitration and ask for the compensation of 300 million dollar and it was just because of the election result.

So, we are finding here that the politics of Maharashtra in that period was not allowing this company to continue and whatever was the reason, one of the important point to notice here is this happened because of the change in the government. So, one of the important point which should be noticed here that again there was a change in the government point set with the interference of the Rebecca Mark, Chairman of the Enron International which had a meeting with Bal Thackeray and which has negotiated for resuming the Enron in this state and...

But, this hope was again came as the part of the revised agreement and the state and the Dabhol Power Company has again finalized the terms of the agreement and Enron obtained the approval from the Indian government to expand the Dabhol liquified natural gas terminal to allow it to the process of 5 million metric tons annually.

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ENRON and Arbitration	
Year	Events
May 1999	Dabhol Phase I (740 megawatts) began generating power
Jan. 2001	The state of Maharashtra stoped paying for Dabhol as of its \$22 million December 2000 bill. The state subsequently seeked to cancel the power purchase agreement.
April 2001	Enron began arbitration proceedings

So... but by 1999 Dabhol Phase I, 740 megawatts began generating. In January 2001, the state of Maharashtra stopped paying for Dabhol as it is 22 million dollar December 2000 bill. The state subsequently seeked to cancel the power purchase agreement, so Enron

again began arbitration proceedings in April 2001. So, we can say here from 1995 or 96 to 1999 there was some production going on and after that even a production was going on, the state government was not ready to buy the power from this particular company and there was the cancel of the power purchase agreement by this state government.

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Politics at Home and in US	
April 2001	Secretary of State Colin Powell raised Enron's problems regarding Dabhol in a discussion with India's foreign minister.
May-June 2001	The Dabhol Power Company ceased operation of the Phase I portion of the plant and halted construction on the 90% completed Phase II portion (1,444 megawatts).
May 2001	The Bush Administration released the White House Energy Plan, which contained a provision that benefited Enron's India operations.
June 2001	Vice President Cheney raised Dabhol in a meeting with Sonia Gandhi, the president of India's opposition Congress Party.

So, politics at home and in the United State – April 2001 Secretary of a State, Colin Powell raised Enron's problem regarding Dabhol in a discussion with India's foreign minister at that time. By May 2001, between May to June we are finding that the Dabhol Power Company ceased operations of the Phase I portion of the plant and halted construction on the 90 percent completed Phase II portion.

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Year	Events
July 2001	The National Security Council led a “Dabhol working group” with Administration officials, including Treasury, State, the Export-Import Bank, and OPIC officials.
July 2001	Christina B. Rocca, Assistant Secretary of State, met with Indian officials on Dabhol.

Source: Minority Staff Committee on Government Reform (2002), U.S.

And by July 2001, the National Security Council led a Dabhol working group with administration officials, including treasury, state, the Export-Import Bank and the OPIC officials. Because, there were many partners especially the investors involved in this project and by July 2001, Christina Rocca, Assistant Secretary of a State met with Indian officials on Dabhol issue.

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The Loss for Enron	
Oct. 2001	Alan Larson, Under-secretary of State for Economic, Business and Agricultural Affairs, raised Dabhol with the Indian foreign minister and the Indian national security advisor.
Nov. 2001	Talking points were prepared for President Bush to discuss Dabhol in a meeting with Indian Prime Minister A.B.Vajpayee on November 9. However, the topic was vetoed the day before the meeting on November 8, which is the same day that Enron disclosed a stunning \$586 million in previously unreported losses.

So, what we are finding here that instead of a proper speedy completion of the project, we are finding here that Enron had a controversial stage for many years and by October 2001 US Under Secretary of the State of Economic Business and Agricultural Affairs raised Dabhol with the Indian foreign minister again and Indian National Security

Adviser also. By November 2001, when the talking points were prepared for president Bush to discuss Dabhol in a meeting with Indian prime minister A B Vajpayee on November 9.

The topic was basically before the meeting on November 8, the Enron disclosed 586 million loss in... It was disclosed that this type of loss incurred during the entire project in India and basically in the entire process, we are finding that the economic reform process which India has started in 1991 has not really well supported by the political parties of India.

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Lessons from Enron

- ✓ India's political interference had not supported the world's largest investment in power sector.
- ✓ This was the first setback to a large FDI in Infrastructure in India.
- ✓ Getting Investment is not difficult in Infrastructure but protecting investment is more important.

And Enron was the first case, where the company had the huge investment and that investment was the largest in the world in terms of power infrastructure. So, when we say that, when we compare the economic reform process with other country, India has economic reform process with other country, we find out that economic reform process in other country are well planned, well managed and fully supported by the political parties compared to the political interference, which we have seen in case of Enron power point, Enron power project.

The infrastructure development in many newly industrialized countries is an eye opener for many developing countries today. Because if one can see the progress made in Singapore or progress made in South Korea or progress made in Hong Kong. Those progress are basically much more politically supported than the progress in India and one can ask that what is the reason basically. The foreign investment – foreign investment is

one of the major reasons in India for the politics.

FDI – there are benefits of FDI and there are challengers from the FDI and when we say there are benefits from FDI, the opposition parties are basically counting what are basically the challenges, what are basically the losses of FDI. So, in case of Enron the price of the electricity was one of the major issue, which was basically fought between the state government and the Enron and there was a blame game on the different government. And ultimately this is happening... this happened because we have less thought about the economics, but the Indian political parties have more thought about the politics. And there would have been a proper mechanism to solve such crisis because, a country like India, a developing country like India cannot really continue only with local support or domestic support in infrastructure sector. We have to have depend on the international support, we have to really work on the assistance from International agencies, we have to really attract the foreign direct investment, we have to also look for the bonds and debentures in infrastructure. We have to also look for the institutional investment and ultimately, we cannot really work on the one source of finance for the infrastructure projects. But we have to really think for the multiple source of financing for infrastructure due to the high urbanization and migration going on in India and other developing country.

So, in particular especially in this case, in case of Enron we are finding that there was huge political interference. US secretary were constantly involved in meeting the political parties and the leaders and sorting out the issues and trying hard to continue with the projects. But, at the same time the state, the support which they have received from the state was not really convincing them and that is why they were always going for the arbitration and finding out the compensations, another things.

This was the first set back to a large FDI in infrastructure in India. And one can say that since it was 1992 and India was not having a complete mature economic reforms atmosphere, but we were struggling at that time. We were struggling between whether infrastructure should be under the full control of the state government or whether a state should be the only partner in infrastructure development or we have to also invest, we have to also look for the FDI or other International sources.

It was the setback for the India, which was really looking for a more advanced and replaced economic model. But, at the same time compared to 1991 and 92 the other

projects which were started after 2000 or around 2000, they were having much maturity from the political parties in terms of support from the political parties compared to 1991 and 92 projects. So, we will try to also find out in a different cases study that how India had a different level of maturity in the field of infrastructure development compared to 1991 and 92.

But, in this particular case we are not finding mature steps by the Indian government. Whatever was the reason when we say, when we sign a contract for the investment, when we allow somebody to come and join the country, it is indeed important to protect the interest of those investors. Otherwise we are not only destroying the opportunity of the current FDI, but we are also destroying the opportunity for the future FDI. And this happened in India and since this was one of the major case of the full FDI support in infrastructure and power sector.

The India which was really looking for more liberal and independent investment atmosphere had a very tough time at the international level, especially the foreign delegations started asking that why Enron failed and why government of India has not supported to stop such failure. What action has been taken by the state government and why not there should be pre-planning before allowing such FDI.

So, there were many questions till today in case of Enron. India had to ensure varieties of queries by the investors till today and we are not really free from those questions. Getting investment is not difficult in infrastructure, but protecting investment is more important. That is the foremost relation which we can take from Enron power projects. With this note I would also like to, I would like to also inform you that I will also try to bring some more case study in terms of road, construction and other things and then, we will find out that how India really started from... started a case of failure to a case of success.

And why we are talking about India? Because it is one of the most important developing country in the world today. So, these lessons and the success and failure story from these cases are really helping us to understand, how good we were in our planning and how good we were in terms of receiving the investment even in the first stage of liberalization which India started after 1991.

So, has India reform the economic reform, that is another issue, which we will learn when we will discuss about the open economic model in infrastructure in our some other

module. But at the same time we cannot ignore the fact that there are many lessons which one can take from Enron and FDI in infrastructure; especially in Enron, is an important issue for the government and policy makers at this state level and also at the central level to really consider. Because more we are waiting for the infrastructure more we have to be serious about protecting the interest of the investors, as well as government has the double responsibility as Stiglitz pointed out that when we are more in the private mode, we are not really stopping the responsibility of the government. But, instead of government has the new responsibility and that new responsibility is not as a producer, but as a facilitator and a regulator, as a partner in the projects, not contradicting the project. Because as a partner... we are finding here that partner in the case when government is a partner, government is not a partner for the investors only, but government is also a partner in the development process of the economy for those citizens... because government represents the citizens and for... they have to really work on balancing the responsibility between the investors as well as the public. I think with this note... we will also discuss some other case studies in infrastructure projects in India.

Thank you.