ELON MUSK IN INDIA – A SUCCESS STORY IN THE MAKING

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Abstract: One of Elon Musk's Twitter posts created much buzz in India and most certainly in the southern State of Karnataka in India. His EV company Tesla is planning on expanding to another East Asian Market after the Shanghai branch dealt with R&D and sold almost 50,000 units. Moreover, India is one of the most likely targets which Tesla would be aiming for, not only because of the humongous workforce capability that the country could offer but also for the development of rules and regulations for the improvement and the enhancement of EV's in the country. Since the development of the EV policy, 2017 in the state of Karnataka, which pioneered the same and proved itself to be worthy of the badge of "EV Hub" of India, with many tech start-ups pushing the boundaries in the field of EV. Some of the latest news articles in the papers discussed the probability of Tesla being interested in forming another enterprise in the country, which is exciting news. This would not only mean the change in the economic spectrum of the country because of the remarkable improvement of the Tesla Stocks in the USA but also a significant chance for employment, leading to the push in the Indian economy, which is most required at this time of distress and dilemma because of the COVID-19 pandemic which struck.

Key Words – Economy, Employment, EV Hub, Pandemic, Policy, Tesla, Start-ups.

1. INTRODUCTION

The Corona Virus struck the entire world in the year 2020 and was declared a pandemic in March 2020, and since then, the entire world has fallen into this necessity to shut down and lock itself up. This has caused every country to take several steps back in terms of economic progress and development actions. Shops shut down, jobs lost, people starved, governments crumbled, and doctors suffered. Moreover, all of this took a toll on a person's daily life, but it shook the core of the country on a significantly larger scale.


Every country is mainly dependent on its economy, governmental actions, health care system, and people. Only when all of these parts of the process are in place and in unison can there be a way for the country to progress. This idea is like Dominoes; once one single piece starts to fall, it does not just tumble and toil, but will also take down the rest of the Dominoes with them, and this is one such situation that happened to create the domino effect and destroy entire countries, just in a matter of days. All of these moving pieces are very integral for the smooth and seamless existence of all such departments of the country; the economy provides a way for the country to stand out and be productive and prosperous amongst all the other competitors in the world. The government is what ensures the safe commission and the safe way of commission of such actions. However, creating regulations, laws, rules and laying down restrictions not only tries to secure the future of the country but also ensures the present's safety. Next comes the role of the health care system, and this is one of the essential
parts of the entire chain because, with there being no regard to the health of people, who are the very beings upon which the before categories are based, would crumble. There would be an extension of the entire species.

Moreover, health care is a vital part of the puzzle, ensuring beings who can be a part of society that runs itself. And the last part of this domino is the people. Without the people, none of this would exist, and there would be no need for the writing of this article itself.

Nevertheless, humans are an amusing species. They not only devour the resources money and act all the time with a self-centered perspective and with a misplaced sense of rationality. But there are times when they take decisions, create action plans, fight against injustice, love each other, and care for the environment and the planet we live in. The two very distinct but very unique sides of the very same coin. Furthermore, it is always unimaginable the horrors that man commits, and at the same time, it is very astounding to look at the marvels and lengths that humans have gone to ensure “GOOD” lives long.

The entire purpose of the above three paragraphs is to set up the premise along the lines this paper would be talking about. The pandemic cleared the people's view, but it created a sense of clarity that everyone lacked in the years where there was no pandemic, and everyone was everywhere. It got into perspective our priorities and made the people think about the acts that every person could do to mitigate the process of degradation that is happening to the climate. The very intricate parts of this paper might deal with very complex topics and details regarding international politics, policy reforms, economic notions, etc.

However, the underlying principle and the crux of this paper are to ensure human beings' actions must always benefit the creatures living at large. It is not late, even though pretty late, to seek redemption for the sins which have been committed. And one such way of redemption is to protect the environment by implementing sustainable means with which the harm caused to nature would substantially be reduced. The time would be given to the environment to recuperate and renourish itself from the harm and damage it suffered.

A data collection and compilation done by the Financial Times, a measure of the air quality was taken into the picture and complied into statistical data which could be analyzed. The report mentioned an alarming sight and showed the real-time situation that existed in a lot of countries, where the UN-certified air quality limit was surpassed and violated several times by some countries. And in the Asian sector, India stood out. The pollution portion of the Indian map was way off the charts, and nearly 5x more times, an average Indian would be exposed to harmful pollution, which would lead to the death of many people and cause harm to many people.

This pollution was caused mainly because of vehicular emission, industrial emission, construction dust, thermal plant emissions, etc. And considering that in mind, the paper would mainly focus on the vehicular emission part of the problem. Now, in this time and age, the need for sustainable development and the use of renewable resources is of the utmost importance, because of the depleting conditions of the environment and steadily rising in the warmth of the world, leading to melting of the polar caps, unprecedented climate actions, rising temperatures in a vast number of regions. All of these actions are not only becoming the primary concern in several countries in the world; if unregulated and not adequately monitored, it would lead to catastrophic effects which would last long and leave a very profound impact on the entire living species.

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2 Steven Bernard and Amu Kazmin, Dirty air: how India became the most polluted country on earth, Financial Times (Dec 11, 2018) https://ig.ft.com/india-pollution/
With all that said and done, it is high time that a rapidly evolving and progressing country like India must look into many actions which have been taken up by the countries which have already broken the ice and have charged ahead in the use of sustainable ways and renewable ways of development and progress. With some ways to develop and cultivate renewable sources of energy production to mainstream energy production ministries, solar, tidal, hydroelectric, wind, geothermal, etc. are a vast spectrum of possibilities that India can look into and implement in the country for better progress.

Musk in India

The entire conversation and the hype about Elon Musk-led Tesla coming to India, which happened via a Twitter post which was replied to by the global leader in electric vehicles, sparked not only excitement but also a race in order to make the country compatible to ensure the smooth and comfortable arrival of the motor company. The tweet, which sparked a lot of debate and discussion in the country, is almost the very first in its class to happen.

The promotion of electric vehicles has been a core action focused on by the Modi government in the country. Many actions and many provisions have been taken to focus on the matter so far in the country. The state of Karnataka become the pioneer who led the policy framework in matters which talk about the EV implementation in the country.

With an idea and a goal to make Bengaluru become the hub for EV’s in the country. The 2017 policy drafted and enacted by the state has been a milestone in the EV market and domain.

Many techs and vehicle start-ups in the state constantly push the bounds in matters concerning EVs. Some of those companies who are pioneering the game of EV's in the state are; Mission Electric, an act done by Ola to promote the use of electric vehicles; YULU, a bicycle rental platform, who not only started the trend of using cycles but also got in the use of electric bicycles or e-bikes for commuters in the city.

Ather Energy, an innovative electric vehicle company, who is one of the pioneering company which revolutionized the EV two-wheeler market in the country and so on. Not to forget, Ultraviolette Automotive, which is yet another Bangalore-based start-up that is in the race to deliver a performance-oriented electric motor vehicle, has also been one such company that has created a need for the existence of a legislative act that would help the companies who are trying and working hard for the betterment of the environment.

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Tesla had for entering the Indian market was with the lack of infrastructure, the increased tax duties, and lack of raw materials\textsuperscript{10} and the not up to the mark policy standards, which do not permit entry and is one of the major concern which has been the primary setback for Tesla not entering India.

Not only these, but India has not been well equipped like other countries for the policies for EV’s. The European market has shown much promise across many areas and regions with respect to the EV industry. The framework which each and every country has come up with is more remarkable and is more of an incentive to create an approach to poach the audience into becoming a part of the electric vehicle community. A considerable number of countries in the continent of Europe have shown a significant promise in the EV market, but apart from the sales stats and everything else which involves numbers, one of the most important things which have to be considered here is the policies and the type of action and steps which are taken by the government of those countries which show positive signs during the implementation of such actions.

Among all the countries which exist, 8 significant countries in the EU show remarkable promise in the market for EV’s and those are Netherlands, UK, Spain, France, Denmark, Germany, Switzerland, and Norway\textsuperscript{11}.


\textsuperscript{9} Amit Pandey, Electric bike startup Ultraviolette plans to raise up to $75 mn, mint (Oct 14, 2020) https://www.livemint.com/companies/start-ups/ev-startup-ultraviolette-plans-to-raise-up-to-75-million-in-one-year-11602574491850.html


Even though they have their downsides to the way the sales of the EVs, but the way the countries tried to promote EV sale is remarkable. Even though the sales have somewhat plummeted in some regions and have maintained a certain level of dominance amongst the other competitors, the central aspect that one has to stress is the proactive action taken by the collective states. This proactive action of theirs gives them an edge over the rest of the competition as that is one way by which, the concern and the firm belief in the very concept of rolling out vehicles which would-be run-on electricity rather than the conventional gasoline or its variants.

Apart from the United Nations Sustainability Development Goals\textsuperscript{12} are an essential aspect that deals with the concept of saving resources for the future and making sure to find a way to implement and make reasonable use of those resources to benefit the need of the present. Exists. Which is technically a forum at which all the nations of the world come together and pledge for a better tomorrow; the crucial aspect of appreciation would be for the EU who have taken it upon themselves and not only follow the guidelines which the UN has laid down, but also they have gone a step ahead and have made sure that there are actions which are being taken at the grassroots level which would not only benefit the microeconomy of the country, but all those small developmental actions add up to the bigger picture which is the macroeconomy of the country. And this is how and what being proactive means.

The United Nations Sustainability Development Goal 7 talks about the factor for the presence of there being affordable and clean energy for all. And that being one of the most crucial aspects under that, the UN has linked EVs with respect to linking electricity and
transportation. The priority actions of the SDG being ways to integrate the renewable forms of electricity and to implement fuel policies that would not only help in the reduction of pollutants but would also lead to the reduced consumption of non-renewable sources. Policy framework to improve, implement, and encourage public transport, walking, and cycling overuse of private transportation means, except for at times of need\textsuperscript{13}.

\textsuperscript{13}Policy Brief #16 Interlinkages Between Energy and Transport, United Nations.

Not only that, but the priority actions would mainly include the aspect and the steps which have to be taken up by each and every state which is a signatory and makes it a duty that has to be implemented by the signatories when they ratify the legislative actions for the same. Considering the 15-year plan, which is the main focus of the agenda that the UN Sustainable Development Goals\textsuperscript{14} have, is an essential part of the entire discussion that involves the United Nations.

Furthermore, with keeping a timeframe in mind, the race to accomplish and succeed in achieving those goals will become the focus and make all the signatories accountable and take the onus upon themselves to make sure that they try and make a difference to develop and to attain the goals. With the improving stance of people in understanding the global crisis, it is also becoming very beneficial to swing and ensure all these goals are met fully. There are various suggestions that the UN has made in their policy document\textsuperscript{15}, and those suggestions can act as guidelines for all the states to work on and improve the conditions that exist.

\textit{Karnataka Policy on EV’s}

In this research work, the main focus is on the aspect of the EV policy, which was drafted and enacted by the state of Karnataka in the year 2017. Being one of the first states in India to come up with a policy for EVs in India, Karnataka is leading to be one of the pioneers in the field of EV transportation and is an example of proactive action.

The EV policy, which was enacted in 2017, is a very prominent and very important candidate in the contention that helps implement the policy for the development of the EV market. Moreover, the news of Tesla being a potential candidate who would be establishing their market in the country\textsuperscript{16} indeed did juice up the energy of the people. And with the policy in Karnataka aiming to be a wholesome and very inclusive policy with respect to all the aspects of EVs, the pioneer state could be one of the most likely states that would be the host for the motor industry.

\textsuperscript{15}Supra note 13

The EV policy has its preamble deeply rooted in the reduction of emission that the transport sector causes and ensures that the boost in the EV market, to R&D, manufacture, sales, shipping, etc., are acts that would be taken care of under this policy. The framework also deals with one of the most important and crucial aspects: “to attract investments.” which are
very words in the policy\textsuperscript{17}. As India is one of the signatories to the UNSDG, the policy also gives much emphasis to the same, as by 2030, the country would like to implement and clean up the environment and to ensure that sustainable development would be highly regarded and promoted by all the aspects of the country. Some of the studies which discuss one of the most crucial parts of this conversation, as, by 2024, India is one of the most significant users of energy would invest 118 US Dollars, and the Oil Minister justifies this was that it is a requirement because of the increasing developmental process which is being promoted by the country\textsuperscript{18}. Even though it is a valid justification, considering India is one of the most significant and the most prominent countries that is progressing in the world in terms of other nations, which fall under the premise of ‘developing nations.’ The preamble also ensures the emphasis on this very topic. And now, with the determination of the government, to better this sector and to give them undue importance which it would need to the buildup the importance of EV’s and the importance which is going to be given for this particular sector of the motor vehicles market would essentially be a push in the right direction.

The government, via this act, tries to emphasize the shortcomings that existed before, which were not given that much importance previously. Now, this market sector that has to receive their due share of credit is being given the most important in this policy. The policy's mission is to ensure that the ecosystem from the manufacturers, the production unit, the sales department, and the consumer is being given reference and is being the primary focus.

\textsuperscript{17} Supra note 13

The policy tries to bring in the investors to invest in the development of this market. The prospectus for the growth of this sector projects to 2 million units of Hybrid vehicles and EV's is being sold in the country by the end of 2030\textsuperscript{19}, which is a decade away, and the massive leap with 2 million units being sold would be a massive jump in the margin to the economy. It would benefit the market as there would be very high regard to the increase in employment rate as the job opportunities would also skyrocket in all these sectors mentioned above.

The policy tries to get in as many ideas and as many ways to get in people to invest in the EV sector as they can. There are many sectors in which the policy tries to ensure a concession given to the people who try to be a part of this industry.

The main areas of focus in the policy framework are,

1. To maintain sustainable development for the protection and the welfare of the environment.
2. The exemptions would be mentioned for the investors to promote and encourage the investors to be a part of the journey.
3. Starting incubation cells for the promotion of research and development, for more outstanding works in the manufacturing sector, and developing the infrastructure of the market.
4. Give incentives and benefits for the manufacturers, investors, and consumers to better approach and better sales in the market.

The policy could be given understood when we look at the mission and vision of the policy, which gives much significance to the sector of development of the country's economy,
promotion of sustainable development, changing the automotive industry in the next decade. All of which are very important and crucial for the country and can also be looked at in the perspective of proactive steps taken by the country to secure the future of the people.


This policy even has two critical perspectives; one with the importance from the end of the investors, consumers, and the producers, and the other, at the end of the government. Governmental action is a very vital step to take at this point. When such issues are considered, the key players in the format would be the government of various nations, the consumers, and the producers of this market. The government must be given much emphasis because all the nations are setting to embark on is vital, and many embargoes. For that to work to even be of any consideration, the government's action is vital. Only when the country leaders try to lead the way, the people would also follow the same and try to follow the footsteps of the same as these policy changes would make a massive benefit for the people, as that would be the guidelines for the action plan which has to be followed. When we look at the first part of the discussion, which emphasizes the end of the people, the policy gives a tax exemption to the consumers who buy the vehicles. Usually, the road tax in Karnataka has a denomination which would be essential to be followed for paying tax which is highly determined on the price of the vehicle which is being bought by the people and give the people almost a total of 2.5 lakh rupees worth benefits for the same which is a considerable amount at this time in the country. Suppose the policy of California is taken into perspective. In that case, the incentives they are giving are enormous and are crucial in encouraging people to make investments in this sector and purchase those vehicles. The rebate given to the consumers is the highest compared to any other state in the country at $4500 per EV, which would be purchased, taking the EV market in the state of California the highest in the entire country. This is a way to push the sales to a profitable margin and simultaneously encourage producers for developments.

20 Felix Heilmann, Alexander Reitzenstein, Kate Levick, Ronan Palmer, Dileimy Orozco, and George Triggs, The Factors Shaping Tomorrow’s World, E3G, Pg 17 (2020)
21 Deepshika Sikarwar, GST on electric vehicles set to be slashed from 12% to 5%, The Economic Times (Jul 21, 2019) https://economictimes.indiatimes.com/industry/auto/auto-news/gst-on-electric-vehicles-set-to-be-slashed-from-12-to-5/articleshow/70321136.cms?from=mdr
22 Neelima Jain and Thomas Lutken, E-Mobility: A Common Goal, Centre for Strategic and International Studies, Pg 9, (2020)

When we look at the EV policy in the state of Oregon in the United States, it is miraculous that the EV market is starting to boom and develop to become better, the people are now slowly moving into the phase of understanding what the right thing to do, to preserve the environment is. With a $3Million savings from the reduced usage of fuel for vehicles and by using EV’s and it is one of the most remarkable stints which are being done, as a collective work done by all the people which would be not only the path to sustainable development but also a path to economic benefits, as from the very use of EV is the average cost which is
being put on, for the working of a fuel-powered car it would be reduced by 4 times\textsuperscript{24}, which is a tremendous amount of money which is going to be saved by the people, so further allowing the people to invest into actions which have more benefits and more value in them for the utilitarian motive which the citizens of the state are looking most for.

More investment by the people in actions that help in sustainable development sends out a very positive and green signal. That indicates for the engineers, people who are in the field, and ones who are creative. To step up their game and create modes and methods that are more sustainable, friendly, and profitable and would be a reliable source to bank on during the necessary time. Moreover, that is precisely what the Karnataka EV policy is doing right now, as it helps for the people to themselves create supply for the product by forcing the demand rate to skyrocket and by sending out a clear green light signal with a message which would read "LET'S GO FOR IT!" and by that, it just would act as fuel to the raging fire for the creators, to create better.

The policy does this activity by providing a vast array of incentives. This falls under the second perspective, which has to be most importantly considered, as mentioned above. And those benefits comprise land tax reduction, faster clearances for the set-up of the industry from the appropriate authority, and aid in research and development for the betterment of the infrastructure of the industries\textsuperscript{25}. The main objective of the policy is to attract investments by people; it would be very vitally crucial for the policy to be drafted in a manner that would encapsulate the entirety of the problems which are being faced.

\textsuperscript{23} Union of Concerned Scientists, How Oregon Can Benefit From Electric Vehicles: Expanded access to EVs would help consumers, the economy, and the climate, Union of Concerned Scientists, 2015.

\textsuperscript{24} ID note 23

Another most notable provision of the act is the government intervention in developing the infrastructure for the charging ports. With the existing barriers of charging infrastructure, charging delay, and many more necessities, EV use would be a hazardous step. Nevertheless, what the state has done is that they have mandated for the implementation of charging ports in many essential forums in and around the provinces of the city, as to which it would be a mandate by the government to do an act and would have an authoritative backing for the same, which would provide leverage and impose a duty to work on the instructions being given or provided to them. The Oregon state has over 70 DC fast chargers\textsuperscript{26} in and along some of the most critical highways, allowing people to travel longer distances at a lower and more reduced cost, which would be levied on them.

To have more clarity on this matter, the states have to be innately ready and flexible when making changes and decisions which would be controversial. And now with the downfall of the oil imports of about 9% in the 2019-20 financial year\textsuperscript{27}, to India, mainly because of the COVID pandemic. This is one of the most vital aspects to be considered. If the state dives headfirst into the battlefield of the EVs, it would be an unprepared sight that would not benefit the states and highly impact the relationship with the other countries. Mainly the oil sector, as it is the energy source from which India derives its fuel for energy supply. This is an essential concern for the country, as strained relationships with other countries would lead to a tipped geo-political offset that would wreck the entire status quo, achieved through the years\textsuperscript{28}. And so, by slow and steady efforts made by the country, slowly implementing policies like these would go a long way. The relationship with the energy source provider...
would also not be massively hit by a sudden cry of decline. However, this cry of decline would happen gradually and steadily, which would create minor panic and would, in return, highly benefit the country.

25 Supra note 7
26 Supra note 23

The concept of collaboration with multinational companies which work out of India would also be a game-changer in the EV market. As the policy talks about the R&D facilities for the development of the batteries, if there is a possibility which would allow for there mainly existing a focus on an association with other markets which are advancing in the same sector, then that would be of more benefit for the advancement not only for the infrastructure but also would decrease the effort which would be taken to reach that level of development. Furthermore, the time also would be drastically cut short.

All of this being said, it mainly depends on how the state government would implement the underlying principles and establish the focal point of this policy. It would become the breaking point for the positive or negative outcome of this existing policy.

2. CONCLUSION
Now coming back to the main point, about the arrival of Elon Musk-led Tesla to India. The policy above discussed is just a ground that would be the foundation for the country's benefit. As Musk pointed out, the main issues with the India framework are the lack of infrastructure, strict import policies, and not much of existence of EVs and the use of EV in the minds of the people very irritatingly fact. Now with different policies being engineered by different states in India, the strict policy and mindset are getting eased out and are being pushed into the zone where there is a compassionate awareness being formed in the minds of the people non-existent earlier which is a very positive sign and is a sign of progress and development. Nevertheless, with all of that in mind, the essential profile that has to be given to climate action and climate politics must be developed to the extent that would suffice for the country's structural changes. And only then would the nodal exchange and the grassroots development be more versatile and more beneficial. But all said and done, the wait for Tesla to come to India is still on and would be the best thing to have happened to the country in a very long time.

29 IDnote28page5
And with the most relevant switch to renewable resources, it would not only benefit employee people. However, it would also, at the very same time, clean up the environment and would benefit the people in growth and prosperity in the long run. The right step which has to be taken in making suitable investments at the right time for the proper policy framework plays a crucial and avital role in taking the country miles ahead. The renewable energy sector can employ some people in manufacture, maintenance, installation, shipping, transportation, sales, and many other sectors. Significant development to the grid makes the most sense because an amendment would go a long way than a fresh slate that would be drawn to create a vacancy and an opportunity to benefit out of the same. Hence, changes
would be more logical, functional, and the least time-consuming. Not to mention, if there were amendments that would be made, that would take a tremendous amount of time because of the dialogue.

One thing to be considered for situations like these is if the action being taken by the ruling party is for all the people, irrespective of the agenda, motive, intention which would exist. However, if such an action is being taken, there must be complete and unhindered support from the opposition for the same. The author here is not endorsing any such political agenda or viewpoint. But is only trying to make it clear that the existence of the opposition is to make the ruling party work effectively and efficiently and ensure that there is a method for the existence of checks and balances. Essential and vital works should be done with the appropriate and effective association by all the parties to the discourse. And only then would there be a change that would be supportive and effective for the citizens’ welfare.

With the FAME-II scheme initiated by the government, it becomes a fundamental way to create demand for the better and profitable sale of EVs in the country. With support to the infrastructure development in the country, it is a potent and meaningful action which is being taken by the country for the protection of the country and the world at large, with the provisions covering a vast and a significant chunk of the EV business, this is a way to provide an opportunity to whom so ever might need it.

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31 National Automotive Board, FAME Indian Scheme Phase-II, Department of Heavy Industry, Government of India, https://fame2.heavyindustry.gov.in/content/english/13_1_brief.aspx