

ISRO to send space missions in solar system



By Raju Vernekar
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Indian Space Research Organisation (ISRO), which is planning to send three Indian astronauts to space by 2022, as part of India's ambitious "Gaganyaan" project, will also send manned human missions in solar system in near future, ISRO engineer and scientist Dr. V. R. Lalithambika said here.

While delivering a lecture at "Techfest 2020", organised by the Indian Institute of Technology (IIT), Bombay, at its Powai Complex in North East Mumbai, Dr. Lalithambika said that now the ISRO which has already gone through the process of sending spacecrafts to moon and mars, will try to send manned space missions also in the solar system.

Dr. Lalithambika, who is heading "Gaganyaan mission to send humans to space, said that the space research got momentum after two world wars due to the competition between different nations. The human ingenuity makes one to explore newer and newer avenues. To enter solar system, the speed of the rocket should be 1/5 th of the speed of the light. The light reaches earth within 8 minutes.

To send space crafts or satellites, now the chemical rockets are used, but in future this technology will become outdated and plasma rockets will have to be used. Since the plasma rockets have tremendous speed, it will be possible to reach to planet Jupiter within a week/ month from the moon. With chemical rockets, the estimated duration is 4 years to reach Jupiter from the moon. In future the speed of the chemical rockets will be reduced to large extent and they will become obsolete. That is the reason, the use of plasma rockets is the need of the hour.

To propel humans through space with a 100-billion-Watt laser is one of the ISRO's projects in the pipeline she said and added that ISRO is serving the nation in various fields including communication, navigation, space science etc and every single person of India is somehow linked with its services. Over 75 per cent of the population of country lives in remote areas and it is advisable to space technology to provide services in various speeds.

The amount of space junk around earth has hit a critical point. Hundreds of thousands of man-made objects are zipping around our planet—from dead satellites to errant nuts and bolts, putting our working satellites at risk. There are at least 5 lakh satellites

in the earth orbit. Of these nearly 4000 satellites are obsolete. As such to send satellites in the space is a big problem. To design satellite for the space mission is also a challenge before researchers.

A lot of research goes in finding out how the satellites could be sent into the space using less energy. Similarly the astronauts travelling by space crafts face many health hazards like muscular pain, kidney disorder, eye ailments, brain fatigue, change in thinking system etc.

Dr. Lalithambika later inspected the project "Innovations and major challenges in Oil refinery", presented by IIT Assistant Professor Pramod Kothmare, as part of the 23rd edition of "Techfest 2020". The project has been appreciated by Reliance India Ltd, ONGC, BARC and a few other oil refinery industries.

Former Prime Minister of Bhutan and an environmental activist, Dasho Tshering Tobgay speaking on "towards an environmental friendly nation" said that today Bhutan is "carbon neutral" due to strict adherence to pollution control norms and efforts to maintain an ecological balance. That is the reason "climate change" has not affected Bhutan which continues to be peaceful. Besides "we have protected our culture from undue influence of social media". As such our country is peaceful".

IIT Bombay is headed for the moon

In the meanwhile IIT Bombay has collaborated with NASA funded "Colorado Space Grant Consortium University of Colorado" at Boulder(USA) for the Lunar Mission. Project Manager Anmol Sikka and Assistant Project Manager Sanskriti Bhanal said that the IIT Lunar Mission is part of IIT Bombay Student Satellite Project.

"We are part of this endeavour and the provisional plan envisages 500 Luna Satellites designed and developed by students from all over the world to fly to the moon. Spacecraft made by IIT-B will be one of them. The size of the spacecraft is 5cm x 5cm with a thickness of 1-2mm. The launch is slated for 2022, which will mark the 50th anniversary of "Apollo 17", the last manned mission to the moon.

By now over 60,000 people have attended the three-day long Techfest. The visitors are having first hand experience of Air taxis, air drones, "Robowars", The Time Machine(innovation by a Japanese firm), Prosthetics for sports and many other eye catching projects.

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A Critique of the Manipur ILP

(3) **Voting rights:** Even when there is a law that prevents outsiders from owning land, buildings, immovable properties, natural resources, and market, it is difficult to prevent the pressure of outsiders if they play dominant role in making political decision and administration. To prevent from political domination by outsiders, there has to be restriction on granting of voting rights. When outsiders are granted voting rights, in the first phase they are being used as vote bank in local electoral politics. It subsequently strengthened their permanent rooting and political influence. In the second phase, when the demography of outsiders increased tremendously, it interplayed with their political and economic power in exerting further monopoly. When they could use voting rights to exert influence in politics and administration, the effectiveness of ILP system will become a natural death. It is due to the enjoyment of voting rights that, today, in many pockets of Manipur, outsiders are playing pro-active role in electoral politics, expanding residential settlements, and playing interventions in political decision making and administration. It is necessary for us to realize that the aggravating situation has been the result of the ploy of a powerful section of the self-centered and opportunist clique who has no vision for a glorious future of indigenous people. One must avoid from repeating the same mistake.

(4) **Exemption Illegal immigrants:** Clause 16 of ILP Guidelines stipulates, "these regulations and Guidelines shall not apply to foreigners who shall be regulated and governed by... the Passport (Entry into India) Rules, 1950 and subsequent amendments." This matter cannot be taken lightly. Because, according to the Ministry of Home Affairs notifications, dated 7th September, 2015, and 18th July 2016, entry without any restriction has been offered to persons belonging to minority communities in Afghanistan, Bangladesh and Pakistan, namely, Hindus, Sikhs, Buddhists, Jains, Parsis and Christians who were compelled to seek shelter in India due to religious persecution or fear of religious persecution and entered into India on or before the 31st December, 2014. For us, it will be difficult to verify any one would enter into Manipur on the basis of the above claims. Those verified immigrants can enter without an ILP card. If they will settle in Manipur, in the long run they will pose serious threats to the economy, politics, culture and demography of the indigenous people.

(5) **Exemption Non-Manipuri:** Clause 8 of ILP Guidelines stipulates a list of "category of persons exempted from Inner Line Permit." A question can be raised in this regard. Will it be a big burden if ILP card is either obtained by or issued to this category of outsiders, to express their respect for the unique history, identity, and sentiment of the indigenous people of Manipur? According to the Government of Manipur, Home Department, No. 1/9 (2)/2019-H (ILP), dated 13th December, 2019, BJP General Secretary Mr. Ram Madhav obtained an inner line permit for entering Manipur. He tweeted it and claimed that he was the first person to willingly obtain an ILP card. Is it really problematic if such a 'good gesture' is shown by all starting from the Governor of Manipur onwards to the lower officials and the rest of outsiders? Such a gesture should be encouraged by the governments of Manipur and India.

Clause 8 contains certain terms that do not have corresponding definitions. When sub-clause (i) to (vi) exempt "family members," it requires a proper definition. How will government respond to a big chunk of population if they enter Manipur on the claim of "family members?" The term "officers" mentioned in sub-clause (iii) requires a proper definition. A definition has to be mentioned, to be based either on the basis of pay grade or office post designation. Sub-clause (vii) stipulates, "all executive members of the recognized National and State Political Parties." It is irrational and must be deleted. If BJP General Secretary had willingly entered Manipur by obtaining an ILP card, why others cannot follow the same procedure? Sub-clause (viii) mentions "educational institutions." This term is vague and can become manipulative. An "educational institution" should be affiliated to either Board of Secondary Education Manipur or Council of Higher Secondary Education Manipur or Manipur University or any other government recognized university that has a campus in Manipur. Otherwise there will be lack of accountability. Fake educational institutes may come into existence with the sole objectives of promoting migration. Such fake institutions may issue identity card to over-aged pretenders, as there is no age bar for someone to be a student. The validity of such ID card may surpass the validity of Special Category Permit. Therefore, "educational institution" needs to be properly defined.

(6) **Authority:** On the question of issuing ILP card, the Guidelines accords government with discretionary power. There are some problems in this. First, when Clause 5 (ii), stipulates, "any other agency authorized by State Government," the term "any other agency" needs a proper definition. If it has not been properly defined, it is likely to be misinterpreted and manipulated in the interest of those who may misuse power to outsource or privatize the authority to the hands of private firms or companies or a handpicked team. Second, on the issue of card to Special Category ILP, Clause 9 (iv) mentions, "any other person as decided by the State Government." Here, it leaves the door open to manipulation by powerful, who may issue Special Category Permit to anyone on any pretext to suit their personal interests. It also creates a condition whereby Special Category Permit may be granted indiscriminately without any restraint. The sub-clause, if at all required, may be redrafted as, "Any other person as decided by the State Government on the basis of cabinet decision based on prior open information and invitation of opinions and consents of the people." Third, Clause 22 is quite irrelevant or unnecessary as it can outplay all the clauses of the Guidelines. It writes, "The State Government has inherent power to relax any of the above guidelines at its discretion." This clause renders ILP Guidelines as a whole meaningless. This should be deleted. Or, it may be redrafted as, "Nothing in this Guideline can be relaxed until and unless a new Regulation drafted after obtaining the free prior informed consent of the indigenous people of Manipur have suppressed it under the due process of law."

(7) **Penalty:** Clause 20 mentions penalty. There are technical lapses and oversight in it. First, it exempts permanent residents from the penalty of not possessing an ILP card. It, however, fails to mention indigenous people of Manipur and those who are exempted from ILP system. This error must be rectified. Second, it is mentioned that those non-exempted people who enter Manipur without an ILP card

or those who overstay the period of validity are "liable for prosecution as provided under the Bengal Eastern Frontier Regulation, 1873." This penalty leaves out many relevancies in the contemporary context of Manipur. Because, according to BEFR, 1873, those who are being prosecuted guilty are to be fined or jailed or both. There is no provision of deportation of guilty outsiders. Forfeiting of illegally possessed land, building, property, and infrastructures are not clearly mentioned. There is no provision of rejection of permit to a guilty outsider, for a certain period of time (days or months or years or forever). Manipur ILP Guidelines does not mention all these. Third, there is no penalty for those indigenous or permanent resident landlords who give shelter or rented buildings, rooms, etc. to those outsiders who violate ILP Guidelines. There should be a penalty against selling of land, buildings, immovable infrastructure, etc. to outsiders. All these shortcomings need to be rectified. All these must be included in the Guideline.

(8) **Sponsors:** There are certain issues on sponsors. This is related to Clauses 9, 10, and 12, and Application Forms A, B, and D. First, a definition of sponsor is missing in the Guidelines. The term sponsor mentioned in Clause 10 and Application forms 9, 10, and 12 requires a proper definition. Second, Clauses 9 and 12 do not mention the exact term sponsor, but the corresponding Application Forms A and D require to append the name and signature of a corresponding sponsor. This inconsistency needs to be rectified. Third, Clause 10 (b) for Regular Inner Line Permit demands, "the application shall be sponsored by any permanent resident of the State of Manipur." The reason that indigenous people or institutions (such as educational, sports, and cultural) are not allowed sponsoring regular visitors (such as teachers, professionals, fellows, emeritus, families, and friends) is a mystery. It seems government has a framework of mind that gives importance primarily confined to commercial bourgeoisie, bureaucrats, politicians, extractive firms, project dealers, military and paramilitary personnel, and their families, relatives, and friends only. Fourth, Application Forms A and D are lacking in space or provisions to verify authenticity and collection of necessary information pertaining to a sponsor. It is indeed funny to find that a sponsor has to merely mention its name (or department name in case of form D) and append a signature only. It gives enough chances of duplication or pretention or manipulation and escape from authentic verification. It will amount to lack of transparency and accountability. This error needs to be rectified.

(9) **Contraventions:** First, on the question of principle—given the above discussed loopholes—ILP Guidelines 2019 contravenes the ideals of peace and good governance. Because, peace in our context is possible when development and tranquility are achieved by defending indigenous people from the pressures of outsiders, and when there is a good governance that gives efforts to achieve it. It is possible when economy, polity, society, culture and tradition, and identity of indigenous people are safeguarded from demographic aggression by outsiders. To achieve this goal, people have carried out a movement lasting for more than a decade, demanding ILP system. When an ILP Guidelines is enforced in name-shake only and does not guarantee protection of indigenous rights; it cannot be

called either peace or good governance.

Second, ILP Guidelines contravenes the Merger Agreement signed between the Government of India and king Bodhachandra. It was as on the terms of the Agreement that the Government of India took over Manipur. It is the responsibility of the Government of India and the dependent Government of Manipur to respect the spirit and terms of the Agreement. Article VIII of the Agreement stipulates, "They [the Government of India] also undertake to preserve various laws, customs and conventions prevailing in the State pertaining to the social, economic and religious life of the people." The conditions of social and economic life cannot be separated from polity. Similarly, religious life cannot exist independently without population and the value system and culture connected with the spiritual life of the population. All these are interconnected. All these can be protected and promoted only when indigenous people of Manipur are being defended from the pressure of outsiders.

Third, ILP Guidelines overrides national and indigenous rights of the people of Manipur. It contravenes the spirit and norms of international statutes such as: (a) International Covenant on Civil and Political Rights (1966), (b) International Covenant on Economic, Social and Cultural Rights (1966), (c) International Convention on the Elimination of All Forms of Racial Discrimination (1969), and (d) the United Nations Declaration on the Rights of Indigenous Peoples 2007.

Fourth, ILP Guidelines contravenes repeated promises made by BJP National and State Unit leaders to respect and protect the interest of the indigenous people of Manipur. In addition to it, the Guidelines also contravenes the spirit and demand of the consistent popular movement to defend indigenous rights.

Conclusion

It is the rights and duty of the indigenous people of Manipur to protect and promote themselves. It is the utmost duty of the governments of Manipur and India to respect these rights and duty. If government policies contravene these rights and duty; it can only be that the indigenous people of Manipur are deemed to be completely subjugated and overruled to fulfill a hidden agenda. If local efforts to defend indigenous rights are in conflict with the Constitution of India (such as Fundamental Rights or VII Schedule), it can be solved by inserting an exceptional provision or by amending the Constitution accordingly. It cannot be that the Agreement of 1949 was signed (or people of Manipur remained silent when India took over them) to promote domination by outsiders and for a complete destruction. The Government of Manipur, being a dependent unit of the Government of India may be powerless to pursue many local issues with firmness and boldness. However, on those issues that the Government of Manipur is not in a position to take a decision boldly, it must entrust the matter to the people, so that popular movement can raise the matter to a higher level. On the contrary, if the Government of Manipur indulges in the policy of escapism, lies, and diversion only to divert the interest and demand of the people; its exaggerated rhetoric becomes oxymoron and shows the symptom of an animated or spineless leadership that is remote controlled by an alien force indifferent to the interests and rights of the indigenous people of Manipur. For now, it is time to rectify mistakes and insert changes in the Guidelines.

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