

VVIP VISITS

VVIP visits involve meticulous planning and coordination due to the involvement of high-ranking officials. High-ranking officials use their platform during visits to address crucial issues and advocate for causes important to their country.

Ensuring the safety and security of the VVIP is paramount, necessitating rigorous security arrangements at the destination and along the travel route.

Organizing appropriate transportation, whether it's a private jet, helicopter, or a motorcade, to facilitate the VVIP's movements.

By effectively managing VVIP visits, nations can enhance their international relations and promote mutual understanding and collaboration on a global scale.

Increasing Problems due to Solar Waste

■ VIJAY GARG

The current solar panels being adopted to overcome power shortages are designed to last for twenty-five to thirty years, but due to weather conditions, accidents or other reasons, they may fail even before the expected time. Bad solar panels become the cause of environmental pollution as soon as they stop working. After plastic, vehicles, factories and e-waste, solar panels are considered to play an important role in polluting the environment. It is noteworthy that solar panels contain silicon, glass, aluminium, It is a mixture of lead, copper and cadmium, which is not easily recycled. Therefore, from now on, there is a need for intensive research and increased understanding on this. According to the International Renewable Energy Agency, due to the production and installation of solar panels in large quantities, there will be a significant increase in the waste generated by it by 2030, which is expected to cause environmental problems. Therefore, there is a need to make such panels which can last for a long time i.e. the process of waste generation is extremely slow. According to research, India's hundred The amount of waste is expected to be six hundred kilotons by 2030. This quantity will increase thirty-two times by 2050, due to which approximately nineteen thousand kilo tonnes of cumulative waste will be generated. This share will increase to 74 percent by 2040, as existing solar panels reach the end of their life. Similarly, 77 percent of the cumulative waste generated by 2050 will be due to new capacities. According to the study conducted by the Ministry of New and Renewable Energy and the independent research institute Council on Energy, Environment and Water (CEEW), this is Olympic-sized water.720 is equal to filling a swimming pool. According to the research report, 67 percent of the waste will be generated from five states Rajasthan, Gujarat, Andhra Pradesh, Karnataka and Tamil Nadu. By 2030, Rajasthan's share in the waste generated will be 24 percent, Gujarat's 16 percent and Karnataka's 12 percent. The study titled 'Enabling a Circular Economy in India's Solar Industry: Estimating Solar Waste Volume' states that the current installed capacity of 66.7 GW in India is already generating 100 kilo tonnes of waste, which is expected to increase by 2030.Rs will be 340 kilo tonnes. It will contain approximately ten kilo tons of silicon, 12 to 18 kilo tons of silver and 16 tons of cadmium and tellurium. Recycling solar waste to recover these elements will reduce import dependence and increase India's mineral security.

The remaining 260 kg of waste will be generated from new capacities to be installed between 2024 and 2030, the research found. According to the study, solar waste will increase to 19,000 kilotonnes by 2050, of which 77 percent will be generated from new capacities. CEEW has said that solar in India There is an opportunity for the industry to ensure a circular economy leading and dynamic solar supply chain. Scientists are estimating the potential for 78 million tons of solar photovoltaic waste to be generated over twenty-five years, which could be reused or recycled by 2050, however, this will be a major challenge, as comprehensive recycling of solar panels is still not implemented globally. Could be done. The reason for this is the lack of proper infrastructure and national regulations in the world markets.

Obviously, solar wasteIn future, it will play a major role in increasing environmental pollution. To overcome the power problem, solar panels are being installed in large quantities all over the world including India. Therefore, it is important to think now about disposing of solar panel waste. The proper management, recycling and disposal of solar systems is guided by government policies and laws in many countries around the world. The United States, the European Union, Japan, and Australia have private or mandatory programs for solar panel recycling.

In India also its There is a need to make better policies and rules and implement them. It is noteworthy that India plans to achieve approximately 292 GW of solar capacity by 2030, with solar PV waste management being important for environmental, economic and social reasons.

The development of eco-friendly waste management has led to the expansion of EPR (Extended Producer Responsibility) programs, which hold producers responsible for the management of their end-of-life products.

According to scientists, environmental effects of solar wastelt is necessary to develop a better solution closed loop system to reduce R. By developing a safe solar system, the problems arising from it can be reduced. It is also important for the person installing solar panels to know the age of his solar panel and the quality of the elements used in it.

How and where should they be disposed of when they get damaged. It is important to know what is the better solution for solar waste disposal. There is a need to pay attention to better maintenance. This increases the lifespan of solar panels. of this There should be continuous research and development on easily recycled solar panels along with solar system waste management.

Only modern and durable models of solar panels should be allowed to be sold in the market. Two better methods of solar panels can be adopted. This involves traditional bulk material recycling, which involves crushing, sifting and shredding the waste. But if the panel is made of a mixture of glass, copper, aluminium, silver and silicon, it cannot be recycled in this manner.

Another way is high value recycling. Thermal, chemical and mechanical methods are adopted in this. This method is better in every way, in this, silver and silicon can also be recycled through chemical method. Solar panels have been adopted as a better alternative to electricity in running government and non-government enterprises in India. This is reducing the expenditure on electricity.

Both common and special are getting convenience at the domestic level, but until the disposal of panel waste is ensured easily, without impacting the environment, it will be used as if it is safe.

It cannot be said that doing this is good. Therefore, the government should run a public awareness campaign to use the best design of solar panels. The solar panels installed on houses under government schemes should also be better from the environmental point of view.

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Uphold values of inclusivity and vote for development

■ M L LALU

Democracy's success partially lies in the success of its electoral processes and electioneering. India is all set to set an example once again in its journey as a democracy. The Bharatiya Janata Party (BJP) has already invited representatives of parties from different countries to witness the momentous exercise of electoral democracy in India. Many parties have accepted the invitation and the world is going to witness this humongous veritable celebration of the world's largest democracy. Having witnessed elections and electoral politics from close corners, my experience as a polling officer in one of the remotest areas of the country did not give me an ideal sensation of satisfaction, which I think, had been there in my memory giving me painful prickles.

Whenever I found a reason for me to rejoice at the festivities of elections and being witness to the jubilation of political parties dominating the social ambience completely, there has always been a sense of remorse originating in my memory from the uproar of animosity between two groups who fought and wounded each other in the name of their candidates and in another instance, to my horror, I still remember having been approached by a candidate offering a handsome amount for my vote, which he said, if I was ready to cast in favor of him. Again, in another situation I realized how challenging it could be when you find a particular section of the society is shooed away from casting its votes and some people by exercising their muscular dominance forcefully cast the votes of those who they managed to drive and keep away from reaching the polling booths. This indiscriminate monopoly by parties and groups that belong to prominent caste fractions and disruptive elements is still active in areas where even

the media fail to expose them and the officials are forced to derail the procedure.

This year, from April 19 to June 1, we will participate under the scorching sun of the Indian peninsula, the exercise I mentioned in the beginning and its festivities. There is everywhere an enthusiasm for change or there is of course a demand emanating from the desperation of unfulfilled desire of people that asks the government to go through a profound polishing impact. Always seeking something better from the government is the usual norm. Those who failed to improve their position were discarded and this was the principal reason that forced us to test new parties and their new governance methods. Post independence India had a particular regime under Nehru that went for more than a decade. But there was this incense of dissatisfaction seeking change and people were soon to look for alternatives and new political parties were formed to topple the hegemony of the ruling class. Every election brings this opportunity or gives liberty to people to decide as to what their requirements are. It is a period that forces the warhorses on the fray to stop and listen to the people. You will find politicians walking the extra mile in implementing tactics to convince and console voters and fling offers of prospects in case of their being voted to power. From framing impactful narratives to field popular candidates with winning strike rate to the preparations to attract votes into their kitty, all parties are busy in defining democracy in their own way. Election season holds the voters responsible for their decisions. They can decide as to what should be the deciding factors that they would elect a particular candidate for.

National Elections 2024 decisively is a straight fight between the most prominent Prime Minister Narendra Modi and the rest of his opposition

which has directly or indirectly chosen to stand under the I.N.D.I.A umbrella. This time, the government under Modi is well aware of the fact that the main plank it can fight the elections is its performance. Its usual anti-Congress stance may not fructify in winning elections. Congress has been out of power for a decade and the corruption scenario that it was held responsible for before 2014 is slowly fading. The new voters and the first timers need new narratives and new hopes. While jubilation on the winning side is always justified, there is an important aspect that frequently goes sidelined. In the case of the 2019 National Elections, almost 33 percent of the genuine voters preferred not to vote. Which means, despite being jubilant about India's success as a democracy, there is a chunk of population that identifies the emerging scenario as meaningless and decides to stay away from it. Every election brings with it social, economic, political and religious consequences.

Interestingly, India's electoral democracy is not a holistic exercise for development alone. It is bound to bend its head to family, society, caste, religion, region, language and many more factors. An ideal study truly reveals the fact that development has never been the main reason that we chose a particular candidate for: A candidate is chosen to jump into the fray for various reasons. This could be his family prominence in that locality or the caste dynamics that would go in his favor or it can also be due to his radical ideological stance that shoots him to popularity. There is again a factor that counts important these days, a person's social media reach. The subjects he handles in the social media and the acceptance and sometimes the quantum of opposition he receives makes him a favorite pick for candidature. In such cases development always takes a

back seat. But naturally the candidate chosen by a particular party fits in the narrative it sets and he is mounted on shoulders with fictitious and spontaneous glory he is deliberately adorned with. In order to make fortunes from the Sandeshkhali horror, the BJP decided to field Rekha Patra, a survivor of the violence, someone who dared to question the TMC hooligans. She was one among those the Prime Minister called over the phone. Describing her "Shakti Swaroopa" the Prime Minister was setting a distinctive trend helping her shoot to popularity and giving a big blow to his opponent the TMC.

Every vote really is a communication that a voter makes to his country. He communicates his aspirations and conveys his concerns. Irrespective of the electoral hysteria and pomp on the streets, in the polling booths a voter is silent. He needs to make a decision not for him but for his country. He understands the intensity of convulsion he is passing through as his dreams fall apart. He is worried about the future of his children who he knows should find a place in a country that houses the world's largest population. He is expected to realize his responsibility while pressing the button on the EVM. There is the realization of India's growth as a significant global power: There is again a pinch of reality painfully passing through his veins for his not being able to catch up with the wind of progress. Every election is a new stepping stone wherein we give wings to our dreams. Standing before the EVM there should be a dream flashing the sphere of our mind dictating where we would like to see our country when it completes a century of its independence. Vote for the status quo or vote for the change, the decision is ours and that is the beauty of democracy.

Modi's novel Scheme of Lakhpati Didi's

■ OMKAR DATTATRAY

Narendra Modi's NDA government has embarked on the novel scheme of Lakhpati Didi's and the scheme has now found mention in the election manifesto of BJP called as the Sanklap Patra .All of us know that a new government was formed in Rajasthan ,and many schemes were launched were launched in Rajasthan by the new BJP government .One of the best schemes launched in Rajasthan that empowers women is Lakhpati didi Yojana .Under this Yojana ,the women get financial assistance and can do their business and their own work .This scheme works well to improve the financial condition of the women in Rajasthan state .Peoples wait is over ,finally the Lakhpati didi Yojana is launched by the government .Under this scheme ,women get financial assistance ,meet their livelihood missions and other needs .Prime minister Narendra Modi had announced the Lakhpati Didi scheme to provide skill development training to 20 million women in villages across the country .Finance minister Nirmala Sitharaman had announced in her interim budget that government has enhanced the target of Lakhpati Didi's 'the self help group workers who earn sustainable income of at least one lakh rupees a year.'83 lakh SHG's with nine crore women are transforming rural socio-economic landscape with empowerment and self reliance .Their success has assisted nearly 1 crore women to become lakhpati didis already. Buoyed by the success ,it has been decided to enhance the target of lakhpati didi's .Lakhpati didi scheme is one of the best schemes of the Modi government aimed at empowering rural women and making them economically self-reliant and thus this results in the development of village economy which in turn will lead to the development of the country's economy .Lakhpati didi Yojana is one of the best ambitious plan of Rajasthan government .It was launched on 23rd December 2023 by the newly formed BJP government of Rajasthan .After scheme implementation ,women around 10 crore are to get benefits of this scheme and connect with self help groups. These self help groups are the aganwadi didi ,bank wali didi .Lakhpati didi scheme is the best skill development training program for women ,because it enables them to earn money by engage in skill training .This scheme do not only improve women financially ,but also direct them to start their own business .While engaging

with self help group ,women become self reliant and able to train on technical work .The most important aim behind to launch the Lakhpati Didi Yojana is that many women in country come from economically weak sections .It is for those women who want to become financially independent .Due to the financial conditions of such women ,the authorities will offer a loan of 5 lakh rupees without interest .In this way ,this scheme helps women to start their businesses and come out from their weak monetary condition. The department of rural development implements the scheme .The scheme works to developing and helps women to start their own business and the solid income possibilities .The Lakhpati didi scheme is a huge step in the direction of empowering women in villages .The plan provides a way for rural girls to help their families. The Prime Minister Narendra Modi said on women's day that women connected with self help groups are the strong link for Viksit Bharat .The PM posted on X "Lakhpati DIDI Yojnya is a means and medium to empower rural women .By the connection with self help groups ,the women ,girls and sisters are a strong link in the dream of Viksit Bharat. "It is a beneficial scheme for women ,as it makes them self-reliant .Under this scheme ,eligible women can get loans and financial assistance of Rs one lakh .In this way the Lakhpati didis can start their own business and earn money and become self reliant financially .In India's countryside ,a powerful change is taking place as the rural women are given financial assistance of rupees one Lakh to start a business of their own and become economically independent and self -reliant .The Lakhpati Didi scheme is well known among people after its launch because it offers loans to women .Monthly camps are set up in the neighborhood areas to present loans to eligible women especially the ones who have less income .A mortgage of Rs 5 lakh is ready for every eligible girl under this scheme .In this way ,Lakhpati Didi scheme ensures the economic growth of women .Training is a strong pillar of the Lakhpati Didi scheme ,ensuring ladies are ready to step into the commercial business .Many training periods are held to give women the capabilities needed to make the women able .Training is also supplied to women at the district and local levels and ensures that such initiatives are applied properly .Under the Lakhpati Didi scheme

,the financial assistance of 150 crore is distributed among eligible women .It benefits around 11.24 lakh women in the country. Along with the financial assistance ,there are various benefits offered by the Lakhpati Didi scheme.1-It provides training to all women.2-It connects women with SHG and enables them to get training in making LED bulbs ,plumbing ,repairing drones ,and other work .In this way ,the Lakhpati Didi scheme makes women financially independent to earn .3-Under this scheme ,20,000 new women are introduced to self help group and start their own business.4The other benefits of this scheme are financial literacy workshops ,credit facilities ,vocational training ,insurance coverage ,talent development ,financial incentives ,virtual monetary inclusion ,self belief construction ,work teaching ,empowerment etc .Lakhpati Didi scheme is one of the best government initiatives that they take to empower women .It is a beneficial scheme for women ,as it makes them self-reliant .Under this scheme ,eligible women can get loans and financial assistance of Rs one lakh .In this way ,the Lakhpati Didi scheme aims to make rural women financially independent so that they start their own businesses and promote them .From equal growth opportunity to women -friendly infrastructure to increasing women's participation in the workforce -in its Sanklap Patra for 2024 general elections released on 14th April Sunday ,the BJP which is looking for a third term at the centre ,promised a slew of measures with its focus on women empowerment .Releasing the party's election manifesto 'Modi ki Guarantee2024PM Modi spoke about his government's efforts to empower women in the last decade.FM Nirmala Sitharaman unveiled a progressive vision for the nations women through interim budget for the FY25 .The commitment to increase the target of women beneficiaries under the Lakhpati Didi scheme from two crore to three crore is a significant stride towards financial inclusion and empowerment .To sum up it can be said that Lakhpati Didi scheme is the novel initiative of the Modi government aimed towards the empowerment of the women because if we are able to empower women ,we are then able to empower the half of the country's population.

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Mushroom Cultivation-A Lucrative Industry

■ DR BANARSI LAL

Mushrooms are the edible fungi.Scientists have recognized 14,000 species of mushroom out of which about 2000 are edible.Edible fungi were collected from forests in ancient Greek and Roman times and were highly valued by high profile people.Caesar's mushroom(Amanita caesarea) is one such example which is a popular edible mushroom and was a favourite of early rulers of the Roman Empire.Global mushroom cultivation production was 44.20 million tons in 2021 with the highest contribution of chitake mushroom(21%),black ear mushroom(21%),button mushroom(11%),flamumulnia(7%),paddy straw mushroom(1%) and other mushroom(13%).India produces about 0.28 million tonnes of mushrooms every year and per capita consumption of mushroom is 90 gm, which is less as compared to other countries such as the USA(1.49 kg) and China(1.16 Kg).In India ,Mushrooms cultivation was firstly started at Solan, Himachal Prdesh in 1961.National Research Centre for Mushrooms(NRCM) was started at Chambaghat, Solan in 1983.Solan city is considered as the epicentre of mushroom cultivation and was declared as the 'The Mushroom City of India' in 1997.In India major contribution of button mushroom is 70% followed by Oyster Mushroom(17%),paddy straw mushroom(9%),milky mushroom(Calocybe indica)(3%) and other mushrooms(1 %).Bihar is the leading state in mushroom cultivation in India followed by Odisha,,Maharashtra and Uttar Pradesh.Milky mushroom is grown mostly in tropical states Le.Southern States while paddy mushroom is grown in Odisha and Chattisgarh.Other mushrooms such as Shitake, Ganoderma and Hercium have been developed which can be alternatives for the farmers.

Mushrooms are the fleshy-to-tough structures which are the part of the reproductive phase of a certain group of fungi. Mushroom cultivation was started in the 16th century but on a commercial scale it was started in Europe in 17th century and many farms for the mushroom production were established. India with the diverse climate conditions and abundant agricultural wastes has been producing the mushroom from the last four decades. Commercial mushroom cultivation in India has been started and growing mushroom under controlled condition is of recent origin. Its popularity is increasing day by day and it has become a business which is export-oriented. Today mushroom cultivation has been taken up commercially in states like Uttar Pradesh, Haryana,Rajasthan, etc. (during winter months) while earlier it was confined to Himachal Pradesh, J&K and other hilly areas. Mushroom is an excellent source of proteins, vitamins, carbohydrates, fibres, minerals, folic acid and is a good source of iron for anemic patients and is described as one of the best options to convert agro-wastes into quality proteins. Mushroom can be taken by the diabetic and heart patients as it has low calorific value. Mushrooms are of different types: a) Button Mushroom (Agriicus bisporus) b) Dhingri (Pleurortus) c) Milky mushroom (Calocybe indica). Of all the

types, button mushroom is the most popular one (85%). Mushroom cultivation can be done at cottage and small-scale levels besides large-scale farming. Mushroom cultivation provides option for income and employment generation specially for the educated youths and women without any major arable resources. China claims to grow 60 types of mushrooms and the reported production of all mushrooms was around 70% of world production.

Mushroom cultivation is considered as one of the most profitable venture.Mushrooms are grown inside the rooms and do not require arable land. Mushrooms can be grown successfully on most of the agricultural waste residues which can turn lignocellulosic residues into value-added products.If we make use of agricultural waste into mushroom production then India can produce about 3 million tonnes of mushroom and about 15 million tonnes of bio-compost.Use of agro-residues for mushroom cultivation will not only help to reduce the environmental pollution but also can generate income and employment opportunities.Four mushrooms viz. Button mushroom,Oyster mushroom,Paddy Straw Mushroom and Milky mushroom are recommended for the year round mushroom cultivation in India.Farmers can start mushroom culture in small rooms with minimum infrastructure.

Spawn is mushroom seed. Spawns are available in the Directorate of Agriculture and State Agricultural Universities (SAUs). If desired, the same can be produced and sold commercially. There are two methods of composting for mushroom cultivation. One is long method and another is short method. Short method requires less time but it is costly. Most of the growers still use the long method for the compost making which leads to the poor yield and also requires indiscriminate use of chemicals. There is need to diversify and popularize different types of mushrooms and go for multifunctional use of mushroom tunnels. These tunnels should not only be used for pasteurize compost for button but can also be used for pasteurizing straw for oyster; milky and button mushrooms cultivation. This will help in product diversification and there will be less use of power: Oyster mushroom is very easy to cultivate and rural women can easily cultivate it to increase their income. In long method 7-8 turns at regular intervals are required for a period of 28 days. Good compost is dark-brown, ammonia free, little greasiness and having 65-70% moisture. Mushroom seed is said to be spawn which is white in colour. It should be free from any disease and insect-pests. Before spawning the surface should be washed with 2% formalin. For mixing spawn with compost any of the three procedures can be followed: (i) Compost is divided into equal layers and spawns spread in each layer. Result is spawning in different layers. (ii) 3 to 5 cms of compost is remixed, spawns spread and covered with compost. (iii) Spawns are mixed with compost and pressed. A bottle of spawns is good enough for 35 kg of compost spread over 0.75 sq.mt. area (about 2 trays). That is, spawn to compost ratio is 0.5%. Trays are then arranged in tiers in the cropping room and covered with newspapers. 2% formalin is sprinkled over them.

Desired room temperature should be around 18 degreeC with 95% humidity. Spawned compost is covered with suitable material is said to be casing. It helps to convert vegetative phase into reproductive phase. Besides temperature and humidity mentioned above, proper room ventilation should be ensured. After casing mushroom bags should be kept moistened. Mushrooms prop up in 30-35 days. These fungal fruit bodies appear in flushes and harvested when buttons are tightly closed. In a cropping cycle of 8-10 weeks an average yield of 10 kg mushroom/sq. metre is feasible. Cropped mushrooms can be packed for marketing.

The main consumers of mushrooms are food restaurant, hotels, clubs and households. Mushrooms are mostly sold through vegetable shops. The growing domestic and export market as also the delicacy and food value provides extensive and good potential for cultivation of mushroom. Marketing is an Individual affair and the marketing channels are very limited. The seasonal growers do not have cooperatives. There is demand for opening the market outlets but this is feasible only when there is ample mushroom production. Mushrooms have perishable nature and this is the reason that the trade of mushrooms is limited. The canned mushrooms can be kept for a long time and can be transported in a better way. China, India and Indonesia are three most important mushroom exporting countries in the world. Initially there were very few quality strains of mushroom. Presently Krishi Vigyan Kendras (KVKs) of State Agricultural Universities (SAUs) and Horticultural Boards are playing a crucial role in popularizing mushroom cultivation among the farmers.

Technical training and assistance can be taken from. (a) Krishi Vigyan Kendras(KVKs) of State Agricultural Universities(SAUs)(b) Rashtrya Anusandhan Evam Prashikshan Kendra, Chambaghat, Solan (H.P.). (c) Regional Research Lab, Jorhat, Assam. (d) Central Food Technology Research Institute, Cheluvamba Mansion, Mysore etc. Raw materials should be procured preferably from local areas.

It has been observed that the mushrooms are having good demand in the market. Mushrooms cultivation requires awareness on modern production technology and health benefits, product diversification, better transportation with cold chain facilities, cooperatives, incorporation of mushroom in Indian food habits, introduction of mushrooms in mid-day meal scheme in schools and dissemination of information for scientific mushrooms cultivation through electronic media. There is ample scope of integrating mushroom farming in existing integrated farming system. There is need of more value addition methods of mushrooms for the mushroom growers and more trade and marketing network is needed for its growers. Mushrooms can promote in recycling of agro-residues. Mushrooms can help in achieving food and nutritional security.

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