

certainly look into it. We were only dealing with the problem outside the country and our courts are not helpless in dealing with those cases.

[Translation]

SHRIMATI BHAVNA CHIKHLIA: Mr. Speaker, Sir, through you, I would like to ask the Hon. Minister whether any case has come to the notice of the Government in which the husband of the women married to a foreigner did not come at the airport to pick her up? If so, the steps taken by the Government to provide protection to the women in such cases?

[English]

MR. SPEAKER: No, disallowed.

SHRI SYED SHAHABUDDIN: Mr. Speaker, Sir, far from protecting the rights of Indian women who have been married to foreign nationals or NRIs abroad, the Government of India does not even know the facts of the case.

There is no law in this country which calls for a compulsory registration of all marriages of Indian women with foreign nationals. I would like to know from the hon. Minister as to why there cannot be a simple law requiring that the husband gives an affidavit before the marriage and the marriage is duly registered in India and at least the facts are known, so that if the Indian women faces any difficulties or crises abroad, then our representatives abroad can be given the full facts. Then they can intercede in the matter. There is no such law at the moment.

SHRI H.R. BHARDWAJ: Sir, there is a law, The Indian Marriage Act, under which the registration of all marriages is compulsory. But under the Personal Laws like the Hindu Marriage Act and the Muslim Personal Law they do not register marriages.

SHRI SYED SHAHABUDDIN: Sir, this is precisely my point. I am saying that there should be a law precisely on this point that the marriages of all Indian women with the foreign nationals must be registered in this country.

SHRI H.R. BHARDWAJ: I do not know how far he is authorised to say this on behalf of his own community. The problem is not with the Government, but it is with the Personal Laws and we have a law under which marriages can be performed by registration. We have to create public awareness about the difficulties which are being faced. So far as these laws are concerned, they are purely private in nature. The Government's intervention is only at the stage of making the laws.

Now, this is a problem which has cropped up recently because the NRIs give a lot of advertisements in the newspapers and as was said by the hon. Member parties are lured into these kinds of marriages. Once a gentleman marries the girl in India, he does not receive her there. So, all these things are happening and our courts have answered adequately. We have not allowed a single case where a helpless woman was not given the required relief in a particular case. In this particular case also, the Supreme Court has enhanced the all money from Rs. One

lakh to Rs. Two lakhs. Therefore, our courts have given elaborate judgments in such situations. But, as was suggested by Shri Pawan Kumar Bansal we have to give a fresh look to our Indian laws so that in exigencies like this we can meet the difficulties of married women as best as we can.

SHRI PETER G. MARBANIANG: Sir, my supplementary may not be directly related to the main question, but this is about the legislation to protect the rights of Indian women.

Sir, the Christian community finds that almost all the Personal Laws are bad. The Christian Marriage Act, the Christian Divorce Act, the Christian adoption Act, the Christian Inheritance Act, all these laws need redrafting and I am happy that the Christian communities have agreed and submitted a draft proposal to the Law Ministry of the Government of India on all these laws. But it is almost two years now and the Government has not done anything in this regard. Now, the plight of Christian women are very badly affected by these old laws which are made during Basilican time. Therefore, I want to know whether the Government of India is really taking any active steps to bring the Christian Personal Laws immediately in Parliament.

MR. SPEAKER: This question is about Non-Resident Indians and not about the Christian community. So, this is disallowed.

Wind Power Energy

*104. SHRI DATTATRAYA BANDARU:
DR. MUMTAZ ANSARI:

Will the PRIME MINISTER be pleased to state:

- (a) the quantum of power generated through wind energy annually, State-wise;
- (b) the total potential of wind energy in the country, State-wise; and
- (c) the time by which the full potential is likely to be tapped?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES AND MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI S. KRISHNA KUMAR): (a) The annual energy generation through wind power projects, State-wise, during the Eighth Plan is given in the Statement laid on the Table of the House.

(b) A total potential of 20,000 MW has been estimated in the country. According to information provided by the potential States, the potential indentified State-wise, is given in the Statement laid on the Table of the House.

(c) The revised goal for wind power generation for the Eighth Plan is 500 MW. A capacity of 180 MW has so far been installed. The exploitation of the full potential will depend upon identification of suitable sites and finalisation of private sector projects.

Statement

Statewise Wind Power Generation and Potential of Wind Power

State	Power Generation in Lakhs Kw/hr			Wind Power Potential (MW)
	1992-93	1993-94	1994-95 (upto Oct.)	
Tamil Nadu	568.73	719.16	1025.99	2000
Gujarat	187.93	215.93	261.61	5000
Andhra Pradesh	0.63	1.62	1.75	850
Maharashtra	5.19	2.09	7.80	75
Madhya Pradesh	4.07	3.36	1.77	25
Karnataka	—	—	—	200
Kerala	—	—	—	175

SHRI DATTATRAYA BANDARU: Mr. Speaker, Sir, the answer sheet which the Minister has supplied is very evasive one. The wind energy programme is entering into India, particularly, in the coastal regions. The potentiality which they have mentioned here is 20,000 MW. But is some projects which they have commissioned, the potential is mentioned as more than 30,000MW.

In view of this, I would like to know from the hon. Minister whether there is any master plan for a 18 years period for wind power development with a definite target with an adequate budgetary allocation. Has the Ministry made any master plan to exploit this 30,000 MW of wind energy?

SHRI S. KRISHNA KUMAR: Sir, the current estimates are that the total potential for wind energy in the country is 20,000 MW. It is quite possible that on the basis of the national survey and investigation which we have launched, these estimates are revised.

As regards the perspective plan for the development of wind energy, the target given to this Ministry during the Eighth Plan was only 100 MW. We have suo motu enhanced the target to 500 MW. This is because of the policy of the Government of India to allow private sector investment. As the Electricity Boards did not have any resources for investment, this potential was lying unutilized. Because of this policy of the incentive given by us a large. Wind energy programme has taken off. It has now been acknowledged universally that India is developing Wind energy faster than any other country in the world.

The 20,000 MW exploitation will depend upon the budgetary resources, the identification of sites and so on. But I would like to assure the hon. Member that every year our achievement is three times that of previous year. In the last two years it was 50 MW and then it was 150 MW and in the next year it will be 150 MW. So, this is going on in a very faster way and we will development the plan as we go along. We are in the infant stage of this programme.

SHRI DATTATRAYA BANDARU: Sir, as the hon.

Minister says, the target is increasing every year in comparison to proposed plan. Many State Governments are having infrastructural facilities and there are other agencies also, but the entrepreneurs are not properly given any packages. So, are any packages being given to new entrepreneurs by the Central Government? This is part (a) of my question.

Second part of my question is about Andhra Pradesh and Gujarat as they have a very long coastal belt. Is any master plan prepared for these high wind resource regions, that is, Andhra Pradesh and Gujarat?

SHRI S. KRISHNA KUMAR: Sir, this Ministry has already formulated very detailed and comprehensive guidelines including incentive packages which have been circulated to all the States. Depending upon the motivation of the State Governments many State Government like Kerala, Tamil Nadu, Andhra Pradesh, West Bengal, Gujarat etc. have already accepted them. The entrepreneurs get a financial package including a 100 percent accelerated depreciation, concessional customs duty, tax exemptions, industry status, grid connection facilities, wheeling and banking of power and a remunerative price for power. It is because of this package which we have implemented all over the country that the renewable energy programmes, as a whole, and wind energy programme in particular, has taken off.

As regards Andhra and Gujarat is the second wind energy producing State, the first being Tamil Nadu and the third, Andhra Pradesh. The problem is of identifying the sites, making the land available, effecting coordination and installation. There are certain difficulties which we are progressively overcoming. About 79 sites have been identified all over the country for 4,000 MW.

There is no shortage of entrepreneurs. We have enough sites and enough entrepreneurs. The Problem is allocation of land and we will overcome that.

MR. SPEAKER: Mr. Minister, the best part of his question is whether you have a long term Master Plan for this.

SHRI S. KRISHNA KUMAR: Our Master Plan is that

we will be able to achieve at least 75 per cent of the 20,000 MWs of wind potential by 20,000 A.D., if we go at this pace.

DR. MUMTAZ ANSARI: Mr. Speaker, Sir, it has been rightly indicated and pointed out by the hon. Minister that there is a potential of 20,000 MWs of wind and a study was conducted by the World Bank also.

MR. SPEAKER: Is it necessary to repeat it?

DR. MUMTAZ ANSARI: But there is a mistake which has been committed by the hon. Minister in his written reply. Only 8,325 MWs have been shown as the potential spread over in States like Tamil Nadu, Karnataka, Kerala, Madhya Pradesh, Andhra and a different other States. Where is the rest of the remaining potential? So, I would like to know about this.

The second point is that many representatives from the foreign countries and foreign companies have visited India and they met and discussed with their counterparts in India for setting up certain wind energy power projects in this country. So, I would like to know from the hon. Minister, how many projects are going to be just set up in this country involving foreign companies from U.S., Denmark, France, Sweden, what progress has been made in this respect, how much foreign investment has been made in this respect and what are those States where this investment has been made uptill now.

MR. SPEAKER: I am disallowing the last part of his question.

DR. MUMTAZ ANSARI: This is very much important, Sir.

MR. SPEAKER: To the last part of his question, a written reply can be given.

SHRI S. KRISHNA KUMAR: 20,000 MWs potential is what is called a prognosticated estimate made on the basis of Scientific studies. What has been shown is what has already been tied up and proven on the basis of the surveys. The second is smaller than the first.

Now, Sir, the wind energy machines are being manufactured in India. 17 manufactures are there. All of them have foreign technological tie-ups. But 75 per cent has been indigenised. Foreign investment is basically in the field of technological tie-ups with regard to the machinery. Some proposals have come up for joint ventures which will involve foreign investment, but nothing substantial has been achieved so far. There are lot of promises in the air and there is lot of confidence that foreign investment is coming in the wind energy sector in India.

SHRI VIJAY NAVAL PATIL: Mr. Speaker, Sir, we all know that energy is the main requirement for industry, transport and for day-to-day comforts of the individuals. India is having large potential in the field of wind energy and solar energy. The budgetary requirements of the Ministry are not that sufficient. But even the, I would like to know from the Minister whether they are going to introduce a substantial amount of subsidy to be given directly by the Centre to the individual farmers who venture to instal windmills and thus try to save the energy produced from coal or oil. So, I would like to know whether you are going

to give subsidy in a big way to those farmers who are installing windmills in their farms.

SHRI S. KRISHNA KUMAR: Sir, this is a new Department and a new sector is being developed. The budgetary allocation is about Rs. 225 crore this year, only one per cent of the total energy budget of the Government of India. It is a small, and we are asking for more. The Planning Commission and the Finance Ministry are favourably disposed to increasing the budgetary allocation as we progressively achieve results. Sir, the wind energy programme has already become commercial.

There is not need for any subsidy. What the Government is not able to give through the Budget, we are giving through a financial and fiscal package which the entrepreneurs are able to get. Most of our programmes are in various degrees of commercialisation. Subsidy is allowed where it is required and when it takes off into the commercial stage, subsidies are progressively withdrawn. That is our policy. There are many schemes where there are subsidies. There many where there are no subsidies. Wind Energy Programme has no subsidy because it has already become commercial and remunerative.

SHRI RAM KAPSE: The hon. Minister has accepted that exploitation of the full potential will depend upon identification of suitable sites. I would like to know who is going to do the identification of suitable sites, whether the State Governments or your Department. What is the position, as far as identification is concerned?

I have another query to make. You are depending on the finalisation of private sector projects. What is the position as far as the finalisation of private sector projects by your Department is concerned?

SHRI S. KRISHNA KUMAR: The number of sites or tracks of land in geographical terms which have good wind regimes is 79 which we have already identified and which can give us and installed capacity of 4,000 MW. We have only reached 180 MW.

SHRI RAM KAPSE: You have to reach 20,000.

SHRI S. KRISHNA KUMAR: The Programme was started only two years ago in any tangible manner. In two years, we have identified 4,000 MW worth of sites. There are enough number of sites in the kitty which the entrepreneurs can avail of. Entrepreneurs are there. The sites are there. The State Government are to select the entrepreneurs, tie up the finance, get the land and they have to get grid connection to get it started. This is the process we are on. We have launched a National Wind Energy Survey to identify the other 16,000 MW. 500 wind mapping stations have been installed all over the country. The wind mapping is going on. We require data for three years before we can allow investment. Basically the Programme is done through the State Governments and we are only acting as a motivator and as a nodal agency.

PROF. SAVITHRI LAKSHMANAN: I was having a doubt why there is a difference of 11,675 MW. While answering Shri Mumtaz Ansari, the hon. Minister clearly stated why there is such a difference. Now I am having another doubt why the potential estimated in Kerala and Karnataka is not exploited for production of power, whether suitable sites

have not been identified or whether Government is waiting for the finalisation of private sector projects regarding this.

SHRI S. KRISHNA KUMAR: Various States are in various stages of implementing the Government of India's policies. The best States are Tamil Nadu, Gujarat, Andhra Pradesh and West Bengal, if I may say so impartially. The other States are in various stages of taking decisions about the packages to be given to the entrepreneurs, identification of sites and so on. Karnataka and Kerala have wind energy potential. Some of the best sites in the country are Jogimatti in Karnataka and Ramakalmedu in Kerala. In Karnataka, there is a problem of environmental and forestry clearance. In Kerala, the sites are a little inaccessible. The grid has to be taken over long distances. There are individual problems. Definitely we are pressing the State Government that wind energy potential, as the cleanest form of non-pollutant energies, should be developed at the fastest. We are pursuing that and the States are falling in line.

[Translation]

MAJ. GEN. (RETD.) BHUWAN CHANDRA KHANDURI: Mr. Speaker, Sir, I am surprised that the hon. Minister has not touched upon the area which has the largest potential of wind energy in the country. If the potential of wind energy in Uttarakhand region of Uttar Pradesh is assessed properly there could be a potential of about five thousand megawatt power i.e. equal to Gujarat. However, the Hon. Minister has not mentioned about it in his reply. I would like to know that why does this area not find a place in this chart? If the Hon. Minister has any information in this regard, let him tell me. Why has a survey not been conducted to assess the potential? If the Government proposes to conduct such a survey, please give the details.

The Hon. Minister has also said that in some areas, demonstration projects have been put up. In my area also 4 or 5 such projects have been installed but these are not functioning for the last three or four years. I have given a notice of question in this regard. However, will the hon. Minister be pleased to state that by what time these will be repaired and fit for production.

[English]

SHRI S. KRISHNA KUMAR: The wind energy potential is available not only in the coastal areas of the country but wherever there are hilly regions, that is a hill valley syndross and Uttar Pradesh, Madhya Pradesh and other States have tremendous potential in the hilly regions. But, unfortunately, due to neglect in the past, the surveys had not been started there. Large wind farms may not be possible. But Stand Alone Wind Generation is eminently possible. We have launched Wind Energy Survey Programme wherever there are hills including in Uttar Pradesh, Uttarkhand area etc. have good potential.

The hon. Member must be referring to this first flush of demonstration projects which were put up very long ago, ten or fifteen years ago. Some of them are not functioning. But as far as the present programme is concerned, every unit which is put up is functioning and producing electricity because they are run by entrepreneurs. They have

invested the money. We are giving the benefits based on that.

MAJ. GEN.(RETD.) BHUWAN CHANDRA KHANDURI: What happened to those which are lying unutilised (*Interruptions*)

SHRI HARILAL NANJI PATEL: Sir, through you, I would like to know from the hon. Minister one thing. The Minister has replied that Gujarat is second as far as this energy is concerned. Most of this energy is available in my constituency, Kutch. I would like to know whether any site has been identified by the Government or not. The private parties have applied for it. Since so many months, they have not received any reply. Will you please inform me?

MR. SPEAKER: I am not allowing this kind of private parties' questions.

SHRI HARILAL NANJI PATEL: The private project is there.

SHRI P.C. THOMAS: This is a source of energy which can be tapped with minimum input by way of finance. There are many areas which are not tapped, which are not found out because of the fact that survey has not taken place. Will the Minister give some information as to how we could get a survey done in different parts of our country especially in some parts where we have, in our opinion, scope for tapping the area for wind energy?

MR. SPEAKER: I think you have replied to that question already.

[Translation]

DR. CHATRAPAL SINGH: Mr. Speaker, Sir, through you, I would like to tell the Hon. Minister that in many states, this scheme is not being implemented. Whether the Government would conduct a survey of the potential in every state and make efforts to instal such projects there?

[English]

SHRI S. KRISHNA KUMAR: The survey has already reached about 20 or 25 States and Union Territories. wherever this 20,000 MW of wind is there, we shall survey and identify the sites. But it is a progressive programme depending on the budget as well as our organisational capability.

SHRI HANNAN MOLLAH: The hon. Minister has said that one of the States working well in this regard is West Bengal. But no information is there regarding West Bengal. What is the potential available? What about the survey report? How much advancement has been made there? I want to know the information through you, Sir.

SHRI S. KRISHNA KUMAR: I was saying that among the States which have implemented the package suggested by the Government of India, West Bengal is included. Regarding Renewable Energy Programme as a whole, West Bengal is doing well. Unfortunately, for wind, there are not many large wind energy sites. Recently, we have sanctioned a wind energy site in the Sagar Island which is personally visited. We want to develop that inaccessible Island as a model for Renewable Energy Island in the country.

SHRI SRIBALLAV PANIGRAHI: Sir, it is not doubt a

good beginning. This wind energy is a very good alternative to the conventional source of energy in terms of cost and also eco-friendliness.

I would like to know whether any evaluation has been done so far about the performance. What has been the plant load factor in these sectors? Secondly, Orissa which has a long coast, is a poor and deficit State. How is it that that State has been neglected, not included, in the list which has been provided by the hon. Minister? When there is demand and there is also potential in Orissa, how is it that such States are not being given preference in terms of this project?

MR. SPEAKER: He has already replied. *(Interruptions)*

SHRI SRIBALLAV PANIGRAHI: I want to know about the plant load factor as there is no mention of it at all. *(Interruptions)*

MR. SPEAKER: I am not allowing that kind of question. *(Interruptions)*

SHRI SRIBALLAV PANIGRAHI (Deograh): I have raised one question about Orissa. *(Interruptions)*

MR. SPEAKER: It is not possible.

SHRI M.R. KADAMBUR JANARTHANAN: Thank you, Sir. I want to know from the hon. Minister whether the wind energy in Kayatar and Muppandal area of South Tamil Nadu, is assessed at 3000 MW. Is it a fact that the potentiality is assessed at 3000 megawatt, if so, what are the steps Government propose to take to tap this energy for Tamil Nadu and the entire nation?

SHRI S. KRISHNA KUMAR: Muppandal and Kayatar are some of the best wind energy tracts in our country. Tamil Nadu has installed wind energy capacity which is two-thirds of the total that we have installed so far. The maximum activity is going on in Tamil Nadu and the programme is doing well. It is true that the potential there is at least 3000 MW. Private entrepreneurs are fast developing and land values are sky-rocketing there. A large number of wind farms can be seen if you driven through these areas in Tamil Nadu.

[Translation]

SHRI KRISHAN DUTT SULTHANPURI: Mr. Speaker, Sir, in Himachal Pradesh there is vast potential of wind energy. There has been wide publicity through the newspapers that a large amount is being spent on this project there. I would like to know from the Hon. Minister which areas of Himachal Pradesh have been brought under Wind Energy Programme and the amount allocated therefor?

[English]

SHRI S. KRISHNA KUMAR: Sir, we hope to develop 161 small hydro sites in Himachal. That is the area in renewable energy where Himachal has the highest potential. There is low wind there than at other places. But tremendous hydro-electric potential is there. Surveys have been conducted; entrepreneurs have been chosen by the State Government and the work is in progress. We are in constant touch with the State Government to speed up this programme.

[Translation]

PROF. RASA SINGH RAWAT: Mr. Speaker, Sir, I would like to say that there is acute shortage of power in Rajasthan but it can be met by utilising the potential of wind energy. In desert areas, strong wind blows. Whether the Government has conducted any survey to make maximum utilisation of the potential of wind energy there? Further, has any proposal been received in this regard from the State Governments? If so, the response of the Union Government thereto?

[English]

SHRI S. KRISHNA KUMAR: Rajasthan including the desert areas, is included in our wind mapping programme. There are likely to be some potential sites which we shall develop. But the main emphasis in Rajasthan is on solar energy development.

SHRI SOBHANADREESWARA RAO VADDE: Wind energy, as the hon. Minister has stated, is one of the best sources of energy. But the recurring cost of production will also be very very minimal. One of the bottlenecks is the high cost of installation. I would like to know from the hon. Minister what steps have been taken by the Government to reduce the cost of installation, as for example, the expenditure on the coast of machinery to be imported as well as the indigenous material that can be produced. I would like to know how best can it be minimised so that it can be really economically viable and it will help a lot in augmenting the power supply in the country?

SHRI S. KRISHNA KUMAR: The cost of installation of wind energy per megawatt has come down to 2.75 crores as against four plus crores for new thermal energy projects being sanctioned by the Government of India. So, it has already become very competitive. We are progressively reducing the tariff for import which stands at 25 per cent. It used to be 68 per cent. We have brought it down to 25 per cent.

We will try to bring it down further. But, I would like to assure the hon. Member that the wind energy installation cost is less than the present conventional energy project costs.

[Translation]

SHRI D.J. TANDEL: Mr. Speaker, Sir, I would like to say that Daman and Diu are Islands and strong wind blows there. Whether the Government has made any arrangement to start generation of wind power there? The Administration of the Islands has demanded from the Union Government that arrangement for production of wind energy in Daman and Diu may be made as the people are facing acute shortage of power. As a result, industries are also lying closed. What step the Government is contemplating in this direction?

[English]

SHRI S. KRISHNA KUMAR: Sir, the hon. Member is correct. Daman and Diu are also potential areas. Not only wind energy farms are coming up there but a wind energy equipment manufacturing plant is also coming up in Daman.