- (5) पानी गर्म करना तथा स्थान को गर्म करना; तथा
- (6) वातानुकूलन।

भारत में लघु ऊर्जा के उपयोग की संभावनाएं कम हैं क्योंकि देश के अधिकांश भागों में वायु का वेग धीमा होता है तथा वायु में एकरुपता भी नहीं रहती। तथापि, समुद्र तटो तथा पहाड़ों जैसे कुछ क्षेत्रों में पम्प के जिए जल निकालने तथा विद्युत् उत्पादन के लिए वायु ऊर्जा के उपयोग की संभावनाएं हो सकती हैं। इस प्रयोजन के लिए प्रोटोटाइप वायु मिलें विकसित करने के लिए अनुसंधान तथा विकास कार्य हाथ में लिए गए हैं।

(ख) सौर ऊर्जा का उपयोग करते हुए जल के प्रकाश विद्युत् रासायिक अपघटन (फोटो-इलैक्ट्रो कैमिकल डिकम्पो-जीशन) द्वारा हाइड्रोजन के उत्पादन ग्रौर हाइड्रोजन के भण्डारण के बारे में भारतीय प्रौद्योगिकी संस्थान, मद्रास के माध्यम से सरकार ने एक ग्रनुसंधान परियोजना हाथ में ली है। इस क्षेत्र मे ग्रनुसंधान ग्रौर विकास कार्यों को ग्राग वढ़ाने के लिए एक कृत्निमदल (टास्क फोर्स) भी गटिन किया गया है।

†[THE MINISTER OF ENERGY (SHRI P. RAMACHANDRAN): (a) The Government has recognised the importance of developing new, renewable and non-polluting sources of energy in meeting the future energy needs in the long term. Under conditions obtaining in our country, solar energy offers the greatest scope and research and developmental activities in this field have been given high priority. An integrated research programme has been formulated to develop the technology of application of solar energy for the following uses:—

(i) pumps for irrigation uses in rural areas;

- (ii) drying of agricultural produce;
- (iii) cooling and refrigeration for food preservation:
- (iv) desalination of sea water and conversion of brackish water into potable water;
- (v) water heating and space heating; and
- (vi) air-conditioning.

The potential for utilisation of wind energy in India is limited, as the wind velocities in most parts of the country are low and winds are also not uniform. However, in certain areas like sea coasts and hills, it may be possible to use wind energy for pumping water and generating electricity. Research and developmental activities have been undertaken to develop prototype wind mills for this purpose.

(b) Government has taken up a research project through the Indian Institute of Technology, Madras, on production of hydrogen by photo-electro chemical decomposition of water using solar energy and the storage of hydrogen. A Task Force has also been set up to promote further R&D activities in this field.]

## सिंगरौली में कोयले का उत्पादन

267. **डा० लोकेश चन्द्र** : क्या **ऊर्जा** मंत्री यह बताने की कृपा करेंगें कि:

- (क) मध्य प्रदेश में सिगरौली कोयला क्षेंत्र में जिन कोयला खानों में ग्रभी तक उत्पादन प्रारम्भ नहीं हुग्रा है वहां उत्पा-दन कब तक प्रारम्भ हो जाने की संभा-वना है; ग्रौर
- (ख) क्या इन खानों से कोयले की निकासी के लिए रेल सम्पर्क स्थापित किया जाएगा?

†[COAL PRODUCTION AT SINGARAULI 267. DR. LOKESH CHANDRA: Will the Minister of ENERGY be pleased to state:

(a) by when the coal mines in the Singarauli Coalfields area in Madhya Pradesh, which have so far not gone into production, are likely to be operated; and

(b) whether rail link for transportation of coal from these mines will be provided?]

## ऊर्जा मंत्री (श्री पी० रामचन्द्रन्)ः (क) ग्रौर (ख) मध्य प्रदेश में सिग-रौली कोयला क्षेत्र की जयन्त खान प्रति वर्ष 3.05 मि० टन कोयले का उत्पादन करने के लिए ग्रगस्त, 1973 में स्वीकृत की गई थी ग्रौर उस का विकास किया जा रहा है। इस खान से वाणिज्यिक उत्पादन 1980 में शुरू होगा क्योंकि तब तक, कोयले को ढोने के लिए मीर-चौधरी से जयन्त तक रेलवे लाइन वन कर तैयार हो जाएगी।

†[THE MINISTER OF ENERGY (SHRI P. RAMACHANDRAN: (a) and Jayant mine in Madhya Pradesh of garauli Coalfield sanctioned in August, 1973 for the production of 3.05 million tonnes of coal per annum, is under deve-Commercial production from this mine will commence in 1980 by when the construction of railway line from Mirchaudhri to Jayant for transportation of coal will have ben completed.]

PROTEST BY THE EMPLOYEES OF SAMA-CHAR AGAINST THE SETTING UP OF A NINE-MEMBER COMMITTEE

268. SHRI SHRIKANT VERMA: Will the Minister of INFORMATION AND BROADCASTING be pleased to stafe:

- (a) whether government have received any protest note from the employees of the 'Samachar' against the setting up of a ninemember Committee to run the administraof the news-agency; and
- (b) if so, what are the points raised in the note and what action Government propose to take thereon?

THE MINISTER OF INFORMATION BROADCASTING (SHRI AND ADVANI): (a) No specific 'probeen 1eceived. has as such However, a resolution unanimously adopted at the Executive Committee meeting of the Press Trust of India Employees' Union

held on 22nd April, 1977, contains following reference to the 9-member Committee:-

to Questions

"This meeting cannot but condemn the action of the Managing Committee of SAMACHAR in forcing the Memberin-Charge (Editorial) to go on leave and imposing on the organisation a so called staff Committee of 9 whereby the legitimate claims of PTI as the largest constituent of SAMACHAR and those of Hindustan Samachar Samachar Bharati have been completely ignored."

(b) An Expert Committee headed Shri Kuldip Nayar is already going into the functioning of Samachar in all its aspects and will make suitable recommendations about its future set-up. The Committee hopes to submit its report by the end of this month.

SCIENTISTS WORKING IN DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION

HASAN: 269. PROF. S. NURUL Will the Minister of DEFENCE be pleased to state:

- (a) whether it is a fact that there is discontent among a large number scientists, who have been working in the laboratories of the Defence Research and Development Organisation for over 3 to 5 years in salary scales lower than Rs. 700-1300, on account of widespread stagnation at all levels:
- (b) whther it is also a fact that promotion opportunities for scientists in the Defence Research and Development Organisation do not compare favourably with those of their counterparts in CSIR, BARC, etc.; and
- (c) if the answers to parts (a) and (b) above be in the affirmative, what action Government propose to take to remove the stagnation?

THE MINISTER OF DEFENCE (SHRI JAGJIVAN RAM) : (a) Defence Research and Development Organisation is a multi-disciplinary Organisation, and employs a large number of officers/staff with

<sup>†[ ]</sup> English translation.