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IMPLEMENTATION OF FREE POWER SCHEME IN TELANGANA – A STUDY OF KARIMNAGAR AND WARANGAL

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Abstract: *This study explores the intricate dynamics of providing free or heavily subsidized electricity to farmers in India, with a particular focus on Telangana, Andhra Pradesh, Tamil Nadu, and Punjab. The historical evolution of electricity pricing for agriculture is traced, highlighting the populist politics surrounding the provision of free power. Despite the positive impacts on agricultural productivity, the policy is criticized for contributing to the over-exploitation of groundwater, financial strains on utilities, and environmental concerns. Telangana's innovative approach to free power, emphasizing transparency and efficiency, is introduced as a potential model. The research identifies disparities in energy subsidies and advocates for power sector reforms, emphasizing the need for sustainable and equitable policies. The study also investigates the implementation and impact of Telangana's 24x7 Free Electricity scheme, providing insights into demographics, perceptions, and challenges faced by farmers. Findings reveal the diverse socioeconomic profile of farmers, the influence of political leaders on awareness, and the positive impact of the scheme on irrigated land. The study concludes with comprehensive suggestions for tailored outreach programs, education initiatives, and improvements in administrative processes to enhance the effectiveness of free electricity policies and promote sustainable agriculture in India.*

Keywords: *Free Electricity for Agriculture, Implementation, Impact, Challenges. Solutions*

Introduction

The provision of free or heavily subsidized electricity for agricultural use is a distinctive feature of the Indian electricity supply industry. This policy, initiated in

1948, has become a potent political tool, featuring prominently in party manifestoes and influencing election outcomes. Despite its intended goals of enhancing agricultural yields, ensuring food security, and alleviating rural poverty, recent critiques label the free-power policy as a populist paradox. Challenges include allegations that the benefits do not reach the most impoverished farmers, financial crises for utilities and state governments, and environmental concerns related to the overuse of groundwater for irrigation. The question arises whether to eliminate the policy or work within its constraints, with a consensus among policymakers on phasing out subsidies but resistance due to potential vulnerabilities in the agricultural sector. Rationalizing electricity subsidies poses a significant policy challenge, requiring strategic manoeuvring to create a win-win situation for both the state and farmers while addressing environmental and financial concerns.

Electricity subsidies play a significant role in the global electricity industry, funded through various means such as general tax revenue, subsidized fuel, and cross-subsidization. In underdeveloped and developing countries, these subsidies can constitute a substantial portion of public expenditure and utility costs. Notable examples include former Soviet Union countries, where funding exceeds 10% of GDP. In contrast, India allocates around 1.5% of its GDP for subsidized electricity, drawing from diverse sources. While subsidies enjoy widespread support for addressing disparities in access to electricity services, controversy arises due to perceived adverse consequences. Critics argue that subsidies may compromise service quality, encourage inefficient resource use, and lead to financial strain on utilities, particularly affecting the poorest consumers who may lack access to affordable alternatives. The debate revolves around balancing the benefits of affordability with the potential drawbacks of subsidized electricity.

The study discusses the prevalent practice of providing free or heavily subsidized electricity to farmers in India, a policy tool used by political parties to attract rural votes. The historical evolution of electricity pricing for agriculture is outlined, with a focus on the populist politics surrounding the provision of free power. Despite the positive impacts on agricultural productivity and profitability, the policy is criticized for contributing to the over-exploitation of groundwater, financial strains on utilities, and environmental concerns. The situation prompts a question of whether to eliminate or work within the constraints of the free-power policy. The study introduces Telangana's innovative approach to free power, aiming for transparency and efficiency while aligning with renewable agriculture goals. Telangana's substantial investment and commitment to providing 24-hour free power reflect the state's dedication to agricultural development.

The study outlines the critical role of free power policies in the agricultural sector of India, with a particular focus on states like Andhra Pradesh, Tamil Nadu, Telangana, and Punjab. The historical evolution of electricity pricing for agriculture, ranging from

metering to the current practice of providing free electricity, is detailed. The competitive populist politics in Andhra Pradesh, especially regarding the Congress party's engagement with farmers, is highlighted. The disparities in electricity charges for agriculture across states and the substantial financial commitment of state governments in the form of power subsidies are underscored. The argument for providing free electricity is linked to the disparities in irrigation infrastructure and investment costs between canal-irrigated and non-canal areas. However, the study also emphasizes the negative externalities of this policy, such as the overexploitation of groundwater, as seen in the increasing number of energized pump sets. The concern for environmental challenges, particularly the existence of 'dark zones' with depleted groundwater, adds a layer of complexity to the discussion around free electricity policies in agriculture.

Need For the Free Electricity

India, known for its democratic and socialist principles, particularly in aiding marginalized populations, has implemented initiatives such as providing free and non-metered electricity to farmers. Telangana's state government has taken a comprehensive approach to this system, aiming to enhance farmers' energy allocation and encourage productive energy and groundwater use while maintaining free electricity provision. The proposed mechanism introduces a transparent and efficient power subsidy system, allowing farmers to choose between free or subsidized electricity for a limited period or extended hours. The subsidy is quantity-based, promoting productivity and cost-effectiveness. Coordinated with existing groundwater and irrigation programs, the approach encourages farmers to save or monetize unused energy, aligning with renewable agriculture goals. Telangana has made significant strides, providing 24-hour free power supply to agriculture since 2018, constituting 40% of the state's total power supply and supporting over 26 lakh agricultural connections. This reflects the government's commitment to agricultural development and crop productivity.

Significance of the Study

The use of free electricity, particularly for groundwater irrigation by farmers in India, has surged over time, leading to increased demand, competitive extraction, and environmental concerns such as declining water tables. However, the study highlights the uneven distribution of energy subsidies, primarily benefiting middle and large land groups. It advocates power sector reforms, including breaking monopolies, introducing competition, and privatization for sustainability. Telangana's Northern Power Distribution Corporation Limited (TSNPDCL) has efficiently implemented a 24x7 power supply to agriculture, investing in infrastructure and securing power from generators. Despite the subsidy, rural supply times for agriculture are shorter compared to urban areas, raising questions about equitable access. The research

identifies gaps, urging comprehensive comparative analyses, evaluation of long-term effects, and exploration of alternative policy frameworks. Environmental impacts, stakeholder viewpoints, and the role of technology also need further exploration to provide a holistic understanding of electricity subsidies in the Indian agricultural sector. Notably, there is a scarcity of studies specifically focusing on free electricity for farmers, which this study aims to address in Telangana State.

Research Gap

The previous research studies shed light on electricity subsidies in the agricultural sector across Indian states, emphasizing diverse facets and implications for farmers and the economy. Notable research gaps are identified, including the need for a comparative state analysis, evaluation of long-term effects, and scrutiny of social and economic equity. The environmental impact and exploration of alternative policy frameworks, such as Direct Benefit Transfer, are deemed essential. Insights from international comparisons and qualitative research on stakeholder viewpoints are suggested for a holistic understanding. Additionally, the role of technology in shaping subsidy policies and its impact on food security requires further examination. The study aims to address these gaps, particularly focusing on Telangana State, contributing to a more nuanced comprehension of the intricate dynamics surrounding electricity subsidies in the Indian agricultural sector.

Objectives of the Study

1. To provide a comprehensive overview of the free power scheme in Telangana, emphasizing key components and initiatives.
2. To analyze the implementation process of the free power scheme in the specific agricultural contexts of Karimnagar and Warangal.
3. To examine the demographic characteristics of farmers benefiting from the free power scheme in the studied regions.
4. To elicit and understand the perspectives of farmers in Karimnagar and Warangal regarding the free power scheme, including its benefits and challenges
5. To offer suitable suggestions for better implementation of the free power supply scheme for agriculture.

Hypothesis of the Study

1. There is a significant association between the implementation of the free power scheme and improvements in agricultural productivity in Karimnagar and Warangal.
2. The demographic variables of farmers significantly influence their access to and benefits from the free power scheme.

3. The perception of farmers regarding the free power scheme's impact on agricultural practices is significantly associated with the scheme's implementation

Period of the Study

The study focused on the "**Implementation of Free Power Scheme In Telangana– A Study of Karimnagar And Warangal**." The study has taken a year from 2018-2021.

Research Methodology

The researcher adopted a mixed-method approach, combining quantitative and qualitative methodologies. Primary data was collected through questionnaires and personal interviews, while secondary data was gathered from various sources, including records, online profiles, blogs, and papers. The sampling strategy focused on marginal farmers in Karimnagar and Warangal districts, with a sample size of 500 farmers benefiting from the 24x7 Free Electricity scheme. The study included a diverse representation of farmers in selected mandals, emphasizing practicality in agriculture and accommodating seasonal variations. The easy sampling technique was chosen for its adaptability to the dynamic conditions of the agricultural sector. Data analysis involves tabulation and simple percentages for clarity and alignment with study objectives. However, the study has limitations, including a confined geographical scope, potential sampling bias, reliance on self-reported data, and a limited use of secondary data. The findings may not be generalized to the entire state, and incorporating more extensive secondary data could have provided a broader context

Findings of the Study

Socio-Economic

1. Demographics of Farmers:

- Most surveyed farmers fall within the 31-40 age range (32.8%), followed by the 41-50 age group (27.4%).
- 88% of the surveyed farmers are male, while 12% are female.
- Backward Castes make up the largest group (46.6%), followed by Scheduled Castes (19.4%) and Scheduled Tribes (17.8%).
- 57.8% of farmers identify as Hindu, 35% as Christian, and 4% as Muslim.

2. Education and Family Structure:

- 30.4% of farmers are illiterate, and 30% have completed primary education.
- 94% of farmers are married, while 2% are unmarried, 3% are widows, and 1% have experienced divorce.
- 39.2% of farmers belong to joint families, while 60.8% are part of nuclear families.

3. Housing and Amenities:
- 46.8% of farmers reside in pakka houses, while 13.2% live in thatched houses.
- 46% of farmers have access to a toilet, while 54% do not.
- 90% have a bathroom, and 95% have electricity.
- 55% have tap water, and 50% have dedicated drinking water.

4. Financial and Savings Patterns:
- 33% of farmers seek funds from money lenders, 23% opt for traditional bank loans, and 15% borrow from cooperative institutions.
- 43% save in banks, 13% in cooperative societies, 8% in post offices, and 21% in self-help groups.
- Various investment preferences include insurance policies, share market, and chit funds.

5. Landholding Categories:
- Marginal Farmers (60%) have the smallest landholdings, while Large Farmers (1.6%) have the largest.
- Dryland constitutes 61.8% of total land, while wetland makes up 38.2%.

6. Irrigation Practices:
- Dug wells (61%) are the primary source of irrigation, followed by tube wells (20.4%).
- Tanks (11.2%) and canals (7.4%) are used by a smaller percentage.

7. Cropping Patterns:
- Paddy cultivation (33%) is the most prominent, followed by groundnut (25%), cotton (15%), and green gram (10%).
- Vegetable cultivation (46%) and turmeric cultivation (33%) are predominant.

8. Fertilizer and Crop Protection:
- 86% of farmers use chemical fertilizers and 76% use mechanical equipment.
- 15% use herbicides for weed control.

9. Farm Equipment and Practices:
- Tractors are used by 50% of farmers, and triculture is practised by 25%.
- 83% of farmers actively engage in water conservation efforts.

10. Government Schemes:
- 32% of farmers are involved in the UJWAL (UDAY) scheme, and 39% participate in the DDUGJY scheme for rural electrification.

The surveyed farmers present a diverse demographic profile, with the majority falling within the 31-50 age range and comprising predominantly males. Notably,

backward castes constitute the largest group, reflecting the heterogeneous nature of the agricultural community. Religious diversity is evident, with a significant portion identifying as Hindu, Christian, and Muslim. Education levels vary, showcasing a mix of literacy and primary education among farmers. Family structures lean towards nuclear setups, and housing conditions range from pakka to thatched houses, indicating disparities in living standards. Financially, farmers rely on a combination of money lenders, traditional banks, and cooperative institutions, with savings distributed across various channels. Landholding patterns reveal a prevalence of marginal farmers, while irrigation practices exhibit a diversity of water sources. Cropping patterns, dominated by paddy cultivation, underscore the multifaceted nature of agricultural activities. The use of chemical fertilizers and mechanical equipment signifies a modernized approach to farming, complemented by active water conservation efforts and the widespread use of tractors. Farmer participation in government schemes, such as UJWAL and DDUGJY, reflects engagement in initiatives related to electrification and rural development. In essence, this comprehensive analysis provides valuable insights into the intricate dynamics of the farming community, crucial for informed policymaking and targeted support.

Perceptions Regarding The 24x7 Free Electricity Supply Scheme for The Agricultural Sector

11. Sources of Awareness about the Scheme:

- Political leaders: 49.8%
- Media: 19.6%
- Family members: 20%
- Friends or neighbors: 10.6%

12. Influence on Application for the Scheme:

- Friends or neighbors: 30.2%
- Political leaders: 25%
- Family members: 24.8%
- Direct application: 20%

13. Application Process:

- Local electricity department linemen played a crucial role.
- Systematic verification process involving landholding documents and power line assessment.

14. Awareness of Necessary Documents:

- 100% of farmers were aware of the required documents.

15. Connection Initiation Timeframe:
- Within one week: 50%
- Within ten days: 35%
- 15 days: 14%
- One month: 1%

16. Bribery in the Connection Process:
- Up to 1000 INR: 18%
- 1001 to 1500 INR: 30%
- 1501 to 2000 INR: 40%
- 2001 to 5000 INR: 12%

17. Impact on Irrigated Land:
- Increased irrigated land: 92%
- No change: 8%

18. Means of Accessing Water:
- Pumpsets from borewells or dug wells: 88%
- Pumpsets from rivers, tanks, or canals: 12%

19. Financial Assistance for Pumpsets:
- Access to financial assistance: 87%
- No access: 13%

20. Utilization of 24X7 FESSAS:
- 100% adoption rate among the surveyed individuals.
- Change in Land Value:
- Increased land value: 77%
- No change: 23%

21. Profitability Perception:
- 100% agreement that 24X7 FESSAS is profitable for agricultural production.

22. Satisfaction with Electricity Hours:
- Sufficient hours: 87%
- Insufficient hours: 13%

23. Utilization of Extra Hours:
- More land irrigation: 67%
- Change in cropping patterns: 33%

24. Electricity Supply Schedule:
- Supplied uniformly: 68%
- Not supplied uniformly: 32%

25. Sentiments on Power Supply Timings:
- Positive sentiments: 46%
- Negative sentiments: 54%

26. Voltage Fluctuations:
- Experienced fluctuations: 52%
- No voltage fluctuations: 48%

27. Willingness to Pay for Enhanced Power Supply:
- Willing to pay: 63%
- Reluctant to pay: 37%

28. Challenges Faced:
- Concerns about high rates: 5%
- Irregularity in supply: 33%
- Interruptions: 47%
- Staff treatment: 15%

29. Complaint Resolution Time:
- Less than a day: 23%
- One to three days: 39%
- More than three days: 38%

30. Preference for 24X7 FESSAS Continuation:
- Strong preference: 63%
- Preference for cash subsidy: 37%

31. Preferences for Electricity Pricing:
- Willing to pay for electricity: 12%
- Metered usage pricing: 26%
- Flat rate pricing: 18%
- Free power: 33%

32. Perceived Losses Due to Delay in Issue Resolution:
- Losses perceived: 3%
- No losses perceived: 97%

The survey offers insights into a program related to electricity supply for agricultural purposes, covering awareness, implementation, and impact. Political leaders emerged as the primary source of information for nearly half of the respondents, followed by media, family members, and friends or neighbors. The application process involved local electricity department linemen and systematic verification. All farmers were familiar with the required documents, and the time taken to initiate connections varied, with half of the respondents gaining access within a week. Instances of bribery during the connection process were reported, with varying amounts. The program positively impacted irrigated land, with 92% reporting increased land irrigation. The majority accessed water through pumpsets from borewells or dug wells, and financial assistance was available for pumpsets for 87% of respondents. The adoption rate of the 24X7 FESSAS (electricity supply system) was 100%, and 77% noted an increase in land value. Farmers widely agreed on the scheme's profitability for agricultural production. While most expressed satisfaction with electricity hours, challenges included concerns about high rates, irregular supply, interruptions, and staff treatment. Complaint resolution time varied, with a strong preference among respondents for the continuation of the 24X7 FESSAS. Preferences for electricity pricing varied, with a notable percentage favoring free power. Despite challenges, only 3% perceived losses due to delays in issue resolution.

Suggestions

Based on the findings the researcher drew the following suggestions.

1. Demographics of Farmers: Tailor outreach programs to the specific needs and challenges faced by female farmers, and those belonging to Scheduled Castes and Scheduled Tribes. Introduce initiatives that encourage and support younger farmers, given their significant representation.
2. Education and Family Structure: Implement education programs focusing on basic literacy and agricultural best practices. Tailor support services for widows and divorced farmers.
3. Housing and Amenities: Prioritize initiatives to improve sanitation facilities, especially increasing access to toilets among farmers. Address the disparity in access to drinking water.
4. Financial and Savings Patterns: Provide financial literacy programs to encourage safer and more sustainable borrowing and saving practices.
5. Landholding Categories: Develop targeted support for marginal farmers, who constitute a significant majority.
6. Irrigation Practices: Promote sustainable irrigation practices and explore ways to improve access to irrigation sources other than wells.
7. Cropping Patterns: Encourage diversification of crops to enhance overall agricultural resilience.

8. Fertilizer and Crop Protection: Promote awareness about alternative and sustainable farming practices.
9. Farm Equipment and Practices: Support initiatives promoting water conservation and sustainable farming practices.
10. Government Schemes: Strengthen awareness campaigns through political leaders and media to ensure wider participation in beneficial schemes.
11. Sources of Awareness about the Scheme: Strengthen information dissemination through family members and friends to complement political leaders and media.
12. Influence on Application for the Scheme: Enhance awareness programs involving friends, neighbors, and family members.
13. Application Process: Streamline and simplify the application process to reduce dependency on specific personnel.
14. Awareness of Necessary Documents: Continue efforts to educate farmers about required documentation.
15. Connection Initiation Timeframe: Streamline administrative processes to ensure quicker connection initiation.
16. Bribery in the Connection Process: Implement measures to eliminate bribery and corruption in the connection process.
17. Impact on Irrigated Land: Assess and address any disparities in the impact on irrigated land.
18. Means of Accessing Water: Promote sustainable water sourcing practices.
19. Financial Assistance for Pumpsets: Ensure widespread access to financial assistance for necessary equipment.
20. Utilization of 24X7 FESSAS: Continue to encourage and support the adoption of the 24X7 FESSAS.
21. Change in Land Value: Monitor and manage changes in land value to ensure fair and equitable outcomes.
22. Profitability Perception: Continue to communicate the positive impact of the 24X7 FESSAS on agricultural profitability.
23. Satisfaction with Electricity Hours: Address any concerns related to insufficient electricity hours.
24. Utilization of Extra Hours: Develop programs to guide farmers on optimal utilization of extra electricity hours.
25. Electricity Supply Schedule: Work towards a more uniform electricity supply schedule.

26. Voltage Fluctuations: Investigate and address the sources of voltage fluctuations.
27. Willingness to Pay for Enhanced Power Supply: Explore options for sustainable and acceptable pricing models.
28. Challenges Faced: Address specific challenges, especially irregularity in supply and interruptions.
29. Complaint Resolution Time: Aim for quicker complaint resolution to improve farmer satisfaction.
30. Preference for 24X7 FESSAS Continuation: Continue efforts to maintain and improve the 24X7 FESSAS.
31. Preferences for Electricity Pricing: Explore a pricing model that is fair, transparent, and acceptable to the majority.
32. Perceived Losses due to Delay in Issue Resolution: Work towards minimizing delays in issue resolution to prevent perceived losses.

These suggestions aim to address various aspects of the findings to enhance the overall well-being and productivity of the surveyed farmers.

Conclusion

In conclusion, the study delves into the complex dynamics surrounding the provision of free or heavily subsidized electricity to farmers in India, with a specific focus on the innovative approach adopted by Telangana. The historical evolution of electricity pricing, the competitive populist politics in different states, and the environmental and financial challenges associated with the free-power policy are thoroughly examined. The significance of the study lies in its detailed exploration of the disparities in energy subsidies, the impact on various demographic groups, and the need for power sector reforms. Telangana's 24x7 Free Electricity Supply System (FESSAS) emerges as a commendable initiative, aligning with renewable agriculture goals and promoting transparency and efficiency. The findings of the comprehensive survey shed light on the diverse demographic profile of farmers, their perceptions of the free power scheme, and the socio-economic factors influencing its implementation. Noteworthy is the widespread adoption of the 24x7 FESSAS and the positive impact on irrigated land, reflecting the scheme's profitability for agricultural production.

Despite these positive outcomes, challenges such as irregular supply, interruptions, and concerns about high rates persist. The study emphasizes the need for targeted interventions and policy adjustments to address these challenges and ensure equitable access to electricity for all farmers. The presented suggestions provide a roadmap for enhancing the impact and sustainability of the free-power scheme, considering the diverse needs and circumstances of the farming community. In conclusion, this study not only contributes valuable insights into the specific case of

Telangana but also addresses broader issues surrounding electricity subsidies in the Indian agricultural sector. It calls for a nuanced understanding of the intricate dynamics, urging policymakers to consider diverse perspectives, implement reforms, and foster sustainable practices to strike a balance between affordability, efficiency, and environmental conservation.

References

1. Atsushi Kato and Atsushi Fukumi (2020), Political Economy of Agricultural Electricity Tariffs: Rural Politics of Indian States, Energy Policy, Volume 145, *https://www.sciencedirect.com/science/article/abs/pii/S030142152030478X?via%3Dihub*
2. Annual Reports of Northern Power Distribution Company of Telangana Limited, Government of Telangana, Warangal.
3. Department of Agriculture, Government of Telangana, Agriculture Action Plan, 2019-24
4. DES (2017) Statistical Year Book, Department of Economic and Statistics, Government of Telangana, pp.135-144
5. Govt of India (2012) National Water Policy. Government of India, Ministry of Water Resources, Govt of India, New Delhi
6. Govt. of India (2017) Report of 5th census of Minor Irrigation Schemes, Government of India, Minor Irrigation (Statistics) Wing
7. *http://ujala.gov.in/*
8. *https://beeindia.gov.in/en/eco-niwas-samhita-ens*
9. *https://cercind.gov.in/2022/market_monitoring/*
10. *https://cercind.gov.in/Act-with-amendment.pdf*
11. *https://examsdaily.in/wp-content/uploads/2019/*
12. *https://jmkresearch.com/wp-content/uploads/2023/*
13. *https://meritindia.in/*
14. *https://npp.gov.in/*
15. *https://pib.gov.in/.*
16. *https://powermin.gov.in/*
17. *https://prepp.in/news/e*
18. *https://www.argus-p.com/updates*
19. *https://www.ddugjy.gov.in/*
20. *https://www.deccanchronicle.com/nation/in-other-news/311222/24x7-free-power-for-agriculture-completed-5-years.html*

21. *https://www.ias4sure.com/*
22. *https://www.india.gov.in/*
23. *https://www.investindia.gov.in/.*
24. *https://www.mercomindia.com/*
25. *https://www.newindianexpress.com/*
26. *https://www.researchgate.net/publication/228431827_Electricity_subsidies_for_agriculture_Evaluating_the_impact_and_persistence_of_these_subsidies_in_India_DRAFT*
27. *https://www.resurgentindia.com/pdf/Indian%20Power%20Sector.pdf*
28. *https://www.resurgentindia.com/pdf/Indian%20Power%20Sector.pdf*
29. *https://www.uday.gov.in/home.php*
30. *https://www.urjamitra.com/*
31. Know your District – Plan your District Warangal & Karimnagar, Planning Department, Government of Telangana, December 2016.
32. NABARD (2020) State Focus Paper 2020-21, Telangana, National Bank for Agriculture and Rural Development, Telangana Regional Office, Hyderabad. *https://pib.gov.in/newsite/PrintRelease.aspx?relid=77617*
33. Telangana Socio-Economic Outlook 2023, Planning Department, Government of Telangana, Hyderabad.
34. Telangana Today, 7th March 2018
35. Telangana's rural economy, 24x7 free power could be transformational, Business Line, January 3, 2018
36. The Evolution of Power Sector in India, www.reurgentindia.com
37. The Hindu, January 7th, 2018
38. Thimma Reddy, M. (February 2019), 24 x 7 Power Supply to Agriculture in Telangana, Knowledge in Civil society, pp. 1-16. *http://www.pmger.org/articles/24_hour_power_supply_to_agriculture_in_Telangana.pdf*
39. Times of India, 24-hour power gives a boost to industries in rural Telangana, March 5, 2018
40. Times of India, February 28, 2018
41. Times of India, March 27, 2018