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AT THE UNIVERSITY OF SOUTHERN CALIFORNIA



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# *Letter from the Editor*

Dear reader,

It's our distinct honor and privilege to present to you the fifth issue of the RISHI Review published by USC Project RISHI. We are excited to share two proposals written by undergraduate students at the University of Southern California.

After more than 6 years, USC Project RISHI remains USC's premier South-Asian organization. This is without a doubt due to its incredible members, who dedicate time and compassion to meaningful service. Fostering community partnerships and research have always been elements of our process. As we work towards our founding mission of the social and health improvement of rural Indian communities, the RISHI Review has become an integral part of our service.

The RISHI Review was founded by our managing editor, Manushri Desai, to give members the opportunity to help make progressive policy a reality at all levels of Indian governance. Semester after semester, cohorts get together to identify key developmental disparities that exist in India and develop frameworks for the implementation of groundbreaking, informed policy. While the pandemic has challenged international service organizations like USC Project RISHI to reimagine the way we do service, the RISHI Review remains a testament to the power of policy research in changemaking. We continue to have optimism that our efforts may help achieve real, policy-driven impact in India.

It has been our honor to serve as the Editor-in-Chief and Managing Editor of the RISHI Review. We are heartened by the zeal and enthusiasm this edition's policy analysts brought to addressing some of the most complex yet opportune issues existing in India. Our policy analysts have worked hard to produce policy memos that are both innovative and evidence-based. We hope that you will find them both informative and thought-provoking.

To our policy analysts, editors, and executive board members, thank you for your hard work. This fifth edition of the RISHI Review would have not been possible without you.

Sincerely,

Suhas Peela  
*Editor-in-Chief*

Manushri Desai  
*Managing Editor*

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# Incentivizing Businesses to Equitably Increase Employment Opportunities for Persons with Disabilities in India

By Anya Moturi

## Thesis

To increase the private sector employment and job retention rates of Persons with Disabilities (PWDs), the Department of Empowerment of Persons with Disabilities in the Ministry of Social Justice & Empowerment should rework its current fiscal incentive—listed under Section 41 of the Persons with Disabilities Act. The Department should increase financial support to private companies hiring PWDs and doing so on a per employee-with-disability basis rather than the quota requirement currently in place.

## Background & Analysis

The growing PWD population in India, at over 27 million people<sup>1</sup>, has historically faced discrimination and erasure from both society and the government due to cultural and religious beliefs. False judgements of PWDs were widely accepted for most of India's history and only began to change in the late 1990s, with the passing of the Persons with Disabilities Act in 1995. This bill was the first action taken by the government to equalize the playing field and improve quality of life for disabled Indians.

The Persons with Disabilities Act, and following policy measures, gave those that qualified as having disabilities (1) medical, educational, and employment benefits (among others); (2) outlawed discrimination on the basis of disability; and (3) continues to expand the roster of disabilities that give people access to these resources.<sup>2</sup> With growing losses to the workforce and GDP from PWD unemployment, India has instituted a financial incentive<sup>3</sup> covering three years of the Provident Fund<sup>4</sup> contribution and insurance costs for PWDs at companies where at least 5% of the workforce has government-recognized disabilities.

However, despite all of these measures,

WDs are still struggling to find employment; 74% of those with physical disabilities in India are unemployed, as are 94% of those with mental disabilities.<sup>5</sup> The COVID-19 pandemic has forced millions of Indians to look for new jobs, and the situation is especially hard for PWDs who were already struggling to find employment.

## Policy Idea

The Department of Empowerment of Persons with Disabilities in the Ministry of Social Justice & Empowerment should institute an incentive-based and punitive-based financial policy mandating that the government pay for up to 40% of a disabled employee's first year salary at a private company, with 10% to be covered in perpetuity for following years at that same company. Bi-annual check-ins should be mandated to ensure proper treatment and compliance (with revocation of the incentive if these conditions are not met).

## Policy Analysis

Beyond increasing the employment rate of PWDs, this financial incentive would encourage companies to retain these employees long-term, allowing PWDs to achieve a sustainable source of income and financial independence.

International precedent has been set through the U.S. Work Opportunity Tax Credit (WOTC) program, where the federal government pays private employers up to 40% of the first year wages for employees who fall into an eligible category (including veterans, long-term unemployment recipients, and others).<sup>6</sup> A study examining its efficacy in regards to disabled veterans found that the program correlated with a 2% increase in the employment rate per year (32,000 jobs).<sup>7</sup> The study concluded that employment improved for veterans with cognitive and phys-

ical disabilities, and that the program generated mostly full-time jobs. Additionally, though the cost per job averaged to \$10,000 (for a total of \$320 million per year), the resulting economic output produced by the workers was over \$3 billion<sup>6</sup>, far surpassing the initial cost.

The other key component of the proposed incentive is that companies will be required to cover 10% of the salary per year in perpetuity, and companies will be subject to revocation of the tax credit if conditions are not met. While purely incentive-based policies are often used, literature suggests that policies combining incentive and punitive clauses are the most effective.<sup>8</sup> Though reward-based policies can be successful short-term, over time they disrupt relationships, discourage risk taking, undermine worker interest, and can come to be used punitively.<sup>9</sup> Combination policies work because incentives encourage companies to follow the policies, while the punishments ensure they remain compliant.

## Talking Points

- Societal stigma in conjunction with a lack of governmental aid and support is preventing PWDs in India from obtaining employment.<sup>10</sup>
- Policies that combine incentives with punitive repercussions have been shown to be more effective than those that are either purely incentive or punishment based.
- The return on GDP from employing PWDs is estimated to far outweigh the cost of generating the jobs.

## Key Facts

- Leaving PWDs out of the workforce leads to a 5-7% loss of GDP<sup>11</sup> for India.
- The WOTC program in the US has been able to increase the employment rate of disabled veterans by 2% every year since it was instituted,

- and increased the income of the targeted group by 40%<sup>6</sup>
- The economic output produced through the WOTC program was almost 10x more than the cost to generate the jobs.<sup>6</sup>

### Next Steps

Because the program will have a high upfront cost, getting the funding to institute this incentive is the first step. The Department of Empowerment of Persons with Disabilities should work with the Economic and Statistical Analysis division of the Ministry of Labour and Employment to estimate the number of jobs this incentive is likely to create, as well as the cost per job. Once these numbers have been finalized, the Budget division of the Ministry of Social Justice & Empowerment should determine if the funds allocated to the current incentive are enough to cover the cost of the proposed program. If not, it should collaborate with the Budget division of the Ministry of Labour and Employment to see where the remaining money can be acquired from, keeping in mind that it will all be recovered, and in excess.

Once the funding has been secured, the Department of Empowerment of Persons with Disabilities should create a framework for the bi-annual check-ins and submit the proposal for the incentive to the Directorate General Labour Welfare for consideration.

### Action Plan

The first month of the action plan will involve coordination with the Economic and Statistical Analysis division on the steps mentioned above to come up with the numbers and estimates necessary to put together a formal proposal. Once these have been determined and the funding has been secured, the Department of Empowerment of Persons with Disabilities should create a framework for biannual check-ins and write the formal proposal for the incentive. It may also be valuable to consult with a few businesses and include their support and input in the proposal. Once it has been finalized, the proposal should be submitted to the Directorate General Labour Welfare (which deals with labour

legislation and the disbursement of welfare funds for workers) for consideration.

While the proposal is being deliberated on, word of it should be spread, both to the media as well as to organizations and nonprofits that work with PWDs. Media coverage could help the proposal gain traction among the general public and many organizations (such as the Association of People with Disability, the National Center for Promotion of Employment of Disabled People, the Samarathanam Trust for the Disabled, etc.) that provide vocational training to PWDs and work directly with employers to place them in jobs. Keeping these organizations up to date with information about the incentive would allow them to aid in lobbying for the policy to be accepted and could also help recruit more businesses to partner with.

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# Solar Cookers: The Zero Emission Solution to Household Pollutants

By Aryan Desai

## Thesis

To reduce illness rates and healthcare costs of Indian citizens cooking over open-flame, solid-fuel fires, the Ministry of New and Renewable Energy (MNRE) of the Government of India should provide solar grills allowing home-cooks to avoid the respiratory and ocular danger associated with open fires.

## Background & Analysis

In India, a major source of fuel for cooking food is the open indoor fire. Without the widespread use of a convection or gas stove, many households turn to solid fuels (wood, animal dung, crop wastes).<sup>1</sup> Precisely, over 700 million Indians rely on solid fuel fires for their everyday cooking.<sup>2</sup> Therein lies the issue: burning solid fuels releases dangerous levels of household air pollution (HAP). The effects of this are twofold: (1) particulate matter harms individual health and (2) worsens global pollution levels. A study funded by the Global Alliance for Clean Cookware through the United Nations Foundation, published in *Environment International*, compared woodfuel users who switched to cleaner burning ethanol stoves. The results revealed that carcinogenic compounds were found to be almost 70% lower in clean burning ethanol fires.<sup>3</sup> HAP is a severe problem; the World Health Organization (WHO) reports that “in 2010, household air pollution was estimated to be responsible for 3.5 million premature deaths worldwide.”<sup>4</sup>

The group most harmed by the current practice of using open indoor fires are those in greatest proximity to them for the longest period of time: Indian women.<sup>5</sup> An India-centric study from the *Indian Journal of Community Medicine* finds that cardiovascular problems, cancers, low-weight births, and pneumonia have been strongly linked with these open fires and the status quo does

nothing to solve this problem.<sup>6</sup> The earlier data quantifies the damage that Indian women would be prevented from experiencing if they switch to solar cookers and away from solid-fuel fires.

## Policy Idea

The Ministry of New and Renewable Energy should beta test the solar grill implementation program in Aibawk, Mizoram. The implementation includes each house in Aibawk getting one solar grill to use for one month. Families would switch all cooking to utilize the solar cooker in an attempt to emulate a situation where there was no solid fuel left. In the beta test, this would serve as a reminder of the fuel cost savings associated with switching to solar cookers. Mizoram is the ideal beta test location as it does not have a long history of solar cookers so the introduction of this policy would be a welcome positive change. The government of Mizoram would act in their citizen's best interest, making the allure of this policy even greater. To quantify the effects of the solar grills, air quality detectors will record pollutant levels before and after implementation. A decrease in recorded pollutants indicates decreased health detriments in the household environment. The program would help the Mizoram population in two distinct ways: (1) lowering the illness rate and (2) decreasing the number of trips to hospitals not always in close proximity.

## Policy Analysis

The solar grill is the ideal solution for the issue of indoor fire air pollution as it is affordable, long-lasting, and releases zero emissions. For these reasons, solar cookers have seen success in other countries on large scales. For instance, “in 2009, China led the world with over 1.4 million solar thermal cookers” where “A total of 207,000 parabolic [solar] cookers have been

distributed, serving 848,000 people.”<sup>7</sup> This empiric example is demonstrative that other countries have noticed the merits of solar cookers and have chosen to implement them to give their citizens a better quality of life. India is the ideal testing ground as it has a history of using solar grills and has been endorsed by local governments.<sup>8</sup> Since solar cookers do not burn any type of fuel, but instead harness the sun's energy, the solar cooker completely eliminates emissions from solid-fuel fires, directly targeting the root cause of the pollutant-borne illnesses.<sup>9</sup> With this program, the primarily affected group—women who cook—will suffer fewer illnesses such as respiratory issues, low birth-weights, and pneumonia. When Indian women and mothers have the option of avoiding open-fuel fires, they are preserving their health in the long run. Debilitating diseases and costly trips to hospitals are drastically reduced under this new plan. With each trip to the hospital costing “12,245 ± 593 INR (\$187.34 ± 9.07)” and antibiotics alone “3823.602 ± 456 INR (\$58.50 ± 6.97)”, the relationship between solar cookers and the economic welfare of Indians is directly correlated as increased solar cookers mean fewer HAP, meaning fewer illnesses and decreased cost to the Indian citizen.<sup>10</sup> The financial burden placed on families suffering from high amounts of HAP is a major detriment that needs to be addressed.

## Talking Points

- Women and children are disproportionately affected by the accumulation of Household Air Pollution as they spend more time around the fires
- HAP has been linked to serious health illnesses that cost individuals their health and harm finances as treatment is costly



### Key Facts

- 700 million Indians rely on wood-fueled fires for their everyday cooking
- Solar cookers are a zero emission alternative that has had empiric success globally and needs to be implemented in areas where it is not currently
- Each trip to the hospital costs the average Indian citizen 12,245 ± 593 INR (\$187.34 ± 9.07) and antibiotics alone 3823.602 ± 456 INR (\$58.50 ± 6.97)

### Next Steps

The immense decrease in health issues and cost of subsequent treatment will drastically improve the livelihoods of many. The health benefits of solar cookers significantly outweigh the initial cost of purchasing solar grills making this policy attractive to policymakers. The allure of solar grills has not gone unnoticed. Solar Cookers International (SCI) is a NGO that has been advocating for and implementing solar cookers in over 135 countries for over 30 years. The knowledge and experience provided by an established stakeholder such as SCI in conjunction with the MNRE would make an efficient system that would yield positive results for the betterment of Indian health. With expertise provided by an external agency, the stress on the Indian healthcare system will decline.

### Action Plan

The action plan consists of two main goals: (1) gain community support and work directly with government officials to implement a beta test for solar cookers and (2) guide stakeholders like SCI to efficiently implement solar cookers.

The first month of the action plan will include the formation of a succinct one-pager that will inform any stakeholders of this policy. In order to propose this policy, Mizoram's Chief Minister Pu Zoramthanga would be contacted. His support would be garnered by sending him a concise paper that describes the problem with open-fires, the solution to this issue, and reasons why the solar cookers are particularly efficient at attenuating the effects of open-fires. Previous implementations of

solar cookers from SCI can be included to demonstrate that there is empirical evidence that supports this solution. Mobilizing community support would be integral in gaining the support of the Chief Minister; a point of contact who would be responsible for this would be Aibawk's Gram Panchayat who would be the community's speaker. This can be done by sending surveys to villagers in Aibawk and gauging their interest in solar cookers and having them sign a petition in support of this policy. The first month's goal would be 1000 signatures.

The second month would entail reaching out to stakeholders like Solar Cookers International and gaining their support in the form of solar cooker deployment knowledge. Their work across the globe and decades-long history make them experts at implementing solar cooker technology. Additionally, their status as the authority on solar cookers gives credibility to this action plan and will allow them to communicate directly with high level contacts within the Department of New and Renewable Energy to facilitate the implementation of solar cookers.

Months 3-6 will include deploying the beta test and a checkpoint for the beta test. During month three, the HAP detectors would be sent to Aibawk to determine the baseline level of emissions in each household over a one week period. Then, solar cookers would be given to a determined amount of people and would be the sole source of heat for that family. After one month, the HAP level will be remeasured to quantify the decrease in harmful pollutants. Month five will include analysis of data; the data will be used to generate a report to clearly demonstrate the effect of this beta test. A field officer from the Ministry of New and Renewable Energy would be responsible for collecting HAP data and would work with SCI to generate a quantifiable report. Chief Minister Zoramthanga and his department in addition to the MNRE would be asked for input regarding whether or not to continue this project.

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