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Analysis of Gender and Social Inclusion in the Chhattisgarh State Action Plan on Climate Change

TABLE OF CONTENTS

Particulars	Page No.
Introduction	01
Sector Wise Assessments	03
1. AGRICULTURE & ALLIED SECTORS	03
2. HEALTH	06
3. FORESTS AND BIODIVERSITY	09
4. URBAN DEVELOPMENT	11
5. WATER RESOURCES	13
6. TRANSPORT	15
7. ENERGY	17
8. INDUSTRIES AND MINING	19
Summary And Conclusion	21

Introduction

Gender Mainstreaming as a strategy was adopted in the Beijing Platform for Action, 1995. As stated in the Beijing Declaration and Platform for Action an approach that combines gender mainstreaming along with specific affirmative measures is essential for the achievement of gender equality.¹

As defined by the 1997 United Nations Economic and Social Council (ECOSOC), "Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in any area and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension in the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goalis to achieve gender equality."

The need for the Gender Mainstreaming in current programmesarose because of the realization that even after setting down MillenniumDevelopment Goals (MDGs) and Sustainable Development Goals (SDGs), we are far from achieving equality of the genders, something which hampers our whole process of development. A small example is that if women farmers had the same access to productive resources as men agricultural production in developing countries would increase by 2.5 to 4% translating to a 12 to 17% reduction in hunger or 100 to 150 million fewer hungry people.²

Goal 5 of the Sustainable Development Global Goals strives to achieve gender equality and empower all women and girls. Gender equality refers to the equal rights, responsibilities and equal distribution outcomes of development among women and men. Along with gender inequality, social exclusion, both economically as well as socially, prevents specific segments of society from achieving their potential, denies them necessary resources and prevents them for participating fully in economic activities. This denies these groups from enjoying the benefits of developments thereby increasing their poverty as well as vulnerability under climate change scenarios. This is specifically relevant for Chhattisgarh where 12.8% of the population is of scheduled caste and 30.62% of scheduled tribes and almost 70% of the population is agrarian. The Tendulkar Committee estimates of the Planning Commission point towards 40% of the population in Chhattisgarh living below the poverty line. Spatial analysis shows a clear connection between forest areas and poverty³, whereby there is a higher concentration of poor population near forest areas. This is in expected lines as these areas are predominantly occupied by tribal population. Under the SDGs, gender and social inclusion has been considered a significant indicator of climate resilient development globally. With this preamble, a review of the Chhattisgarh State Action Plan on Climate Change (CSAPCC henceforth) was undertaken to determine the adequacy of Gender and Social Inclusion (GESI) in the CSAPCC.

At the onset, one would like to acknowledge the elements of GESI included in the CSAPCC. The CSAPCC recognizes the different roles men and women play in society because of the unequal power relations between them. Many women depend on climate-sensitive resources for survival and their livelihoods, however they have very little wherewithal to adapt to climate change whether this relates to the education, access to resources, decision making powers that they possess etc.

The CSAPCC focused on some distinct streams of work for gender inclusion which are mentioned below:

- a) Use gender responsive language, data and analysis in the detailed implementation plans to be developed under CSAPCC.
- Integration of gender and equity elements in programming such as setting up gender-specific indicators

https://www.unido.org/sites/default/files/2015-01/Guide_on_Gender_Mainstreaming_ECC_0.pdf

World Food Programme (2017) http://www1.wfp.org/gender-equality

https://www.livemint.com/Opinion/TelfQDSiZ1IPufDbwZ526K/Spatial-poverty-in-Chhattisgarh.html

- in programmes and schemes, gender focused monitoring, evaluation and audits and building capacities of men and women to implement participatory schemes at village level.
- c) Partnerships and collaborations with the relevant agencies to help build capacities within the Departments to work on gender and climate change adaptation
- d) Partnerships and collaborations with Panchayati Raj Department to help Panchayats develop gender just local action plans on adaptation.

However, there is considerable scope to introduce GESI relevant action points in the detailed sector-wise activities planned in the CSAPCC. Within the scope of this report, for each of the eight sectors identified in the CSAPCC⁴, an attempt has been made to connect existing schemes (primarily State schemes but also to look at some National schemes implemented in the State) of each of the sectors where GESI has been incorporated with the sector specific action points in the CSAPCC. In the next step, the scope to include GESI within each of the eight sectors was analyzed to identify strategies that can be adopted for the future. The above analysis has in some cases, been affected by lack of data for the particular sector.

⁴Forest, agriculture, transport, health, water resources, urban development, energy and industries & mining

Sector Wise Assessments

1. AGRICULTURE & ALLIED SECTORS

Background

Eighty per cent of Chhattisgarh's population is dependent on agriculture for its livelihood. Of the 37.46 lakh farmer households, 76% fall under the small and marginal category⁵,33% of the farmer families are STs and 12% SCs. Small and marginal farmers cultivate 38% of the cropped area but constitute 75% of the State's cultivators. While it is a commonly known fact that women are involved in farming, disaggregated data on women farmers is rarely collected.

The CSAPCC recognizes that women and marginal farmers could be disproportionately affected by the impacts of climate change and the resulting vagaries of nature. Responsibility of adaptation falls on their shoulders including finding alternate ways to feed their families⁶. Because of customary laws restricting women's property and land rights, it becomes difficult for them to access credit and agricultural extension services and schemes which target land owners only. The CSAPCC also states that in a sector largely dominated by men, women farmers face a lot of difficulty in accessing inputs, extension services and subsidies for taking up agriculture as a livelihood option.

On the other hand, it is women, tribal and marginalized farmers who emphasize the importance of homestead farming for catering to the family's nutritional and health needs. The CSAPCC states that in India and elsewhere evidence shows that women who are already experiencing the effects of weather-related hazards are developing effective coping strategies which include adapting their farming practices.

Key Issues

For many of the schemes, whether of the agriculture or fisheries department, the stated preference is to SC, ST or women farmers. One of the hurdles faced however is that very few women own land. Hence, they are not considered farmers by the Government and their needs are not catered to. They thus lose out on many schemes meant for farmers (land owners), skill development, access to credit and other trainings and services. Identifying women agriculture workers as an equally important stakeholder should be the first step forward while designing these schemes.

The common consensus of the officials of the Agriculture Department was that Gender Mainstreaming of programmes and schemes works better when the Centre issues directives/ guidelines asking for it to be done. For example, in schemes which require women participation, where the number of beneficiaries has to be gender disaggregated, it has been done. However, in the absence of such guidelines, inclusion of GESI issues during planning is not a priority.

⁵Annual Administrative Report 2017-18, Government of Chhattisgarh, Department of Agriculture and Biotechnology.

⁶State Action Plan on Climate Change. Govt. of Chhattisgarh, March 2014

Recommendations

Some of the agriculture and allied sectors where women are engaged and could be involved better include:

Fisheries- More than 2.50 lakh people are employed in the fisheries sector in Chhattisgarh. Fisheries provide much nutritional value for many marginalized communities and women and children and hence must be encouraged. Within the fishery cooperatives made on water bodies the preference for leasing out is for SC, ST farmers and women. However, there is no data available on how many women are part of these cooperatives. Getting disaggregated data on women and other social group participation is a prerequisite in developing any future strategies. From data obtained through interview the Department of Agriculture, it was seen that 13 women SHGs have been made within the Fishery sector. Women and WGs must be encouraged to be part of the fishery cooperatives and at least 33 per cent of places could be reserved for them.

Animal husbandry- This sector could cater to the most marginalized people. The distribution of poultry units, pigs and goat units which the government is committed to, must be aimed at benefiting the most marginalized especially women. In addition, women must have access to credit and extension services.

Sericulture- There is scope for productivity improvement and process refinement within this sector on which women SHGs and women farmer groups must be trained. Here too it could be ensured that in the SHGs, cooperatives created women have at least 33 per cent representation.

Sustainable Agriculture - Promotion of sustainable climate resilient agriculture practices instead of focusing only on high yielding varieties will cater to the nutritional needs of marginalized communities like tribals, dalits and women, among others. Within the **Kisan Samriddhi Yojna** scheme the focus right now is on giving water pumps to other backward caste (OBC) people but women should also be encouraged to get this. Within the **Krishi Shramik Dakshata Unnayan** scheme implemented by the State Government, it is stated that women farmer SHG groups will be given priority ⁷. All efforts must be made to train the women farmers who are not only part of the SHGs but also individual farmers who are outside of any SHGs. Farmer kits should also be given to the women's groups. The total women SHGs within Agriculture are currently 41.

Organic farming will improve soil health by the non-reliance on any chemicals. It could prove good for farmer incomes as well. Women and Women Groups (WGs) should be encouraged to also get into marketing of products- organic, sustainable labels have a good market now. Within the **Jaivik Kheti (organic farming)**Mission implemented by the State the involvement of women must be promoted. The State could also take inspiration from the Andhra Pradesh Government's Zero Budget Natural Farming initiative, where women farmers are an important part. Usage of mobile/sms for weather related data and other farm related information like when to spray pesticides etc. under the 'sancharkranti Yojana' can also be promoted among women farmers. Women farmers/ SC/ST/OBCcould be the primary beneficiary of this scheme.

The CSAPCC states that 'gender sensitization' of agriculture extension officers will be done so that they can support women farmers with gender friendly technologies. It also states that there will be skill development for women in agriculture thus resulting in easier access to information and support for them. Efforts must also be made by the Department to get women on board as much as possible within their staff.

The Gender Budget for the year 2018-19 of the Chhattisgarh Government shows that of the total money allocated for various schemes/ the total number of beneficiaries, 33% of the allocation is for women. Some of these schemes include the National Irrigation Scheme, Micro and Drip Irrigation Scheme, National Farmer Development Scheme, National Mission on Agroforestry etc. The Gender Budget of the CG Government

http://agriportal.cg.nic.in/agridept/StateScheme/4%20amnd%20KrishiLabourdak%20-%20Amndm.pdf

presently provides a section which carries the total number of beneficiary women for each scheme. Going forward, the gender and social inclusion issues should be identified at the time of budget planning and funding should be earmarked for specific GESI activities right from the planning stages.

Listed below are some of the interventions planned in the CSAPCC and the GESI action points for the same:

CSAPCC Action	Activities to be Undertaken as Mentioned in the CSAPCC	GESI Action Points
Capacity building	Capacity building of department personnel and stakeholders	Ensuring in the trainings conducted that at least 33% women participate. Also maintain beneficiary registers so that the work can be reviewed later.
Monitoring and evaluation	Quarterly sector monitoring reports	Making sure that data is disaggregated so that we know the number of male and female beneficiaries. For each scheme analyze what are the benefits accrued to women.
Knowledge Management & Planning	Poverty, equity and livelihoods study and strategy formulation	Already exists. Can emphasize the gender aspects
Policy reviews	Review of state agriculture and alliedsector policies; incorporation of climate concerns (based on sector vulnerability assessment)	Sectoral policy addresses climate change and its impact on women and marginalized in the agriculture sector
Capacity Building of agriculture allied sectors	Sector capacity needs assessment at State level vis-à-vis climate change and its impacts	Calculate the number of women involved in fisheries, agriculture sector and similar sectors. For each scheme analyze what are the benefits accrued to women. Training on off-farm activities such as mushroom cultivation, backyard poultry and fishery should be given to women and landless persons.
Networking & Linkages	Institutional linkages with research/ academic institutions Consultations with civil society and communities	To make sure women and vulnerable people participate actively in the consultations with communities.

^{*} As a strategy the Agriculture Department could also intervene and encourage families and communities to have land in the name of women. Since 2012, the government of Chhattisgarh has introduced a scheme where one percent of stamp duty is waived in case land and property is owned by a woman. This is a drive by the state government to empower women in Chhattisgarh. As of December 2012, 40,309 land registrations had been registered in the name of women accounting for the waiver of INR 22.21 crore of stamp duty. In the state of Gujarat, stamp duty and transfer fees of purchase of property or land in the name of the woman has been wholly exempted. Chhattisgarh could move towards the Gujarat model in a phased manner.

https://www.oxfamindia.org/policybrief/gender-and-development-chhattisgarh-some-policy-prescriptions

Examples are available within the Government of Chhattisgarh for gender mainstreaming. The Agriculture Department could look towards the Panchayati Raj and Rural Development Department of Chhattisgarh for GESI mainstreaming activities. The Panchayati Raj and Rural Development Department in Chhattisgarh has made certain efforts towards gender mainstreaming in their work by calculating gender segregated data in their monitoring of various schemes. The MGNREGS website shows that the number of women employed in CG is 51% of the total employed persons, similarly the number of disabled people employed within the MGNREGS is also quite high compared to other States.

The National Rural Livelihood Mission (NRLM) runs a SRLM programme as well where a lot of emphasis is given to women participants. The Mahila Kisan Sashaktikaran Pariyojna (MKRSP) programme within the NRLM is especially designed for women and also makes an emphasis on climate resilient sustainable agriculture.

Thanks to the Forest Right Act,2006 today a large number of women have ownership over land along with their husbands. But this is helping only some tribal women, the effort must be to have many more women owning land.

2. HEALTH

Background

There has been significant progress made in the health sector in Chhattisgarh. Though not related to climate change, some of the strides taken do contribute towards building resilience towards climate change issues as well. According to National Family Health Survey (NFSH) 4, stunting has decreased from 53 to 37% in the last 10 years, the period between NFHS 4 and 3, and the percentage of underweight children has decreased from 48 to 37%, however the percentage of wasting has increased slightly from 20% to 23% in the last 10 years. 37.6% children below 5 are stunted while 23.1% children below 5 are wasted. Reduction in undernourishment builds up potentially better resilience to cope with vector borne diseases or diseases in the aftermath of natural disasters like floods which is likely to increase due to climate change. No gender segregated data is available on this and hence it is difficult to conclude on the gender aspect of malnutrition although the NFHS 4 mentions that boys are likely to be more undernourished than girls, similarly under nutrition for tribal children is also high ⁹.

Health facilities in Chhattisgarh have today improved immensely from the time the State was formed. Facilities have seen a quantum increase; during the time of formation of the state there were six district hospitals now there are 27, from 114 Community Health Centres to 169, Primary Health Centres 512 to 785 and Sub Health Centres from 3818 to 5186 today¹⁰. Coverage of all the districts through building health facilities is climate neutral but at the same time takes health care to the doorsteps of the most vulnerable people in tribal areas.

The Chhattisgarh Mitanin Scheme is a very good replicable model. Today it boasts of 6000 mitanins or voluntary health activists (mostly women) providing their services for people's well-being and health.

In a bid to improve the food security of its people, in the year 2009 Chhattisgarh became one of the first states to ensure food security for more than 90% of its people. The **CM Khadyaan Sahayta Yojna** ensured that grain- 30kg rice, 5kg wheat and 2 kilo iodized salt is given to the poorest (those possessing Antodaya cards) for 1 Rupee. The category of people qualifying for these cards included households of the Particularly

http://rchiips.org/NFHS/factsheet NFHS-4.shtml

¹⁰https://visualize.data.gov.in/?inst=0109e83b-3f74-4ff6-a173-b21ab04aeadf#

Vulnerable Tribal Groups (PVTGs) and households headed by single women, widows, disabled people etc. However, the good practice of prioritizing the needs of single women, widows etc. has not been followed up in other schemes such as the SanjeevniYojna, Mukhyamantri Swasth Bima Yojna etc. The **Jeevan Deep Scheme** put into place by the State, ensures more responsive, more representative, more people-oriented hospital management committees called Jeevan Deep Samitis, these have been created for every level of government hospitals up to the PHC (CSAPCC).

RSBY cards are extended to all job card holders under the MGNREGS. This covers 70-80% of the population (CSAPCC). Apart from this the Chhattisgarh Government has also started the **Mukhyamantri Bima Yojna** 'to provide protection to every uncovered household against the risk of health spending leading to poverty'. Each family which is given a biometric card can get an insurance cover of 50,000 per year for 5 members of the family within this scheme and will get cash less treatment in the Government and private health facilities which are empanelled.

Key Issues:

The CSAPCC states that there are gender gaps in health in the state, meaning that the women are more likely to be more undernourished than the men. In the context of climate change the CSAPCC acknowledges that there has hardly been any study documenting the relation between climate vulnerability and risk to the health sector, leave aside the GESI aspects in health and climate change. The CSAPCC anticipates the health department will:

- Undertake measures to manage increased vector borne and water borne disease burden;
- Design and deploy improved approaches to deal with heat and wave conditions;
- Deal with the physical and psychological impacts post-extreme weather events.
- Address drought, malnutrition, and food security issues; and
- Address food safety arising due to increased ambient temperature and extreme events.

Thus presently, the health sector policies practically has no climate change concerns addressed within the policy and scheme designs.

It was noted that the **Persons with Disabilities Act 2016** has no mention of climate change or the vulnerabilities faced by specially abled persons due to climate change induced calamities in it.

According to the CSAPCC, the current ownership of health services by PRIs is weak. The National Rural Health Mission (NRHM), states that empowerment of Panchayati Raj Institutions and improved efficiency of health systems are its corner stones ¹¹. Given that in Chhattisgarh women have a 50% reservation in the PRI system they can play an active role in managing and controlling primary health programmes and services. To assist them there is a unique tool called **Panchayat Health and Human Development Index** developed by the Chhattisgarh Government to monitor the health of communities at Panchayat level. The HDI itself is a tool developed by the United Nations which measures and ranks social and economic developments based on life expectancy, mean years of schooling, expected year of schooling and gross national income per capita. Some of the tools used to measure the GPHDI are:access to safe drinking water and toilets; use of electricity; living in pucca houses; employment in non-agriculture sector; per capita income; number of child deaths; maternal deaths; literacy rate; and gross enrolment rate.

Another boiling pot in the recent times is the issue of slums, which the CSAPCC calls as 'the most challenging feature in terms of health services'. With increasing climatic changes and sudden disruptions in climatic conditions, these slums become a boiling pot for disease to spread. However, these slums are not catered to well enough, many of the constructions are illegal and they are largely served by private practitioners.

¹¹CSAPCC

Affordability becomes a major issue here. Urban health centres are still not set up adequately and the number of community health workers is also inadequate.

One of the criticisms by many academics and intellectuals has been that expenditures on health, nutrition etc. have gone down. Instead of spending more on health facilities the Government is putting its money into insurance schemes like the MSBY where 80 per cent of the money goes to the private sector who are mostly concentrated in urban areas ¹².

The Gender Budget for Ministry of Health and Family Welfare, Chhattisgarh Government in the year 2018-19 does not shed any light on gender and climate concerns.

Recommendations

Based on the above discussion, it is evident that the first and foremost action required in the health sector is to map the effects of climate change and health in Chhattisgarh, clearly identifying the effects on gender and socially backward communities, map out the vulnerable areas within the state which could potentially become more vulnerable in future and develop inclusive policies based on this.

Listed below are some of the interventions planned in the CSAPCC and the GESI action points for the same:

CSAPCC Action	Activities to be Undertaken as Mentioned in the CSAPCC	GESI Action Points
Capacity building	Capacity building of department personnel and stakeholders. Build people's awareness of health hazards from climate change through IEC.	Making sure women and vulnerable groups are part of the process and given IEC.
Policy Review- Research	Study on poverty and equity dimensions of health, disease burden and morbidity as a result of climate change.	Already exists. Can emphasize the gender and equity aspects. Also needs to include the effect of climate change as an additional parameter affecting disease burden and morbidity.
Health Infrastructure Resilience	Reviews of the State's health infrastructure and potential climate change related vulnerabilities and risks (retrofit to make more climate resilient if required).	Specific treatment protocols for heat related problems, flood related diseases need to be developed and personnel manning the health infrastructure need to be trained since these issues are not common in Chhattisgarh so far.
Knowledge Management	Identification of potential research and development domains concerned with climate change issues in the sector; initiating studies.	Research studies on climate change and vulnerability of women and marginalized community in the health sector. Bring in community voices.
Monitoring and Evaluation	Quarterly monitoring reports Internal annual review of sector implementation under CSAPCC	Gender and social factor disaggregateddata required for children, specially to understand how different groups are affected.
Networking and linkages	Institutional linkages with research/ academic institutions. Consultations with communities.	To make sure women and vulnerable people are part of the consultations with communities.

¹²https://timesofindia.indiatimes.com/city/raipur/chhattisgarh-shocker-3184-newborns-221-moms-died-in-6-months/articleshow/60979861.cms

3. FORESTS AND BIODIVERSITY

Background

Forests are an important natural resource for Chhattisgarh not only for its environmental importance but also because a significant part of its population lives in close harmony with it. About 50 percent of the villages lie within 5 km radius of forest, where the inhabitants are mainly tribal and economically backward whose livelihoods depend mainly on forests. Every year around seven crore person days of work are generated from forests. Through the Forest Department there is wide coverage of cooperatives, spread over 2 million NTFP gatherers (CSAPCC).

Joint Forest Management has been one of the pioneering schemes of the Forest Department in India which started with the objective of involving communities (especially tribals and others living in and around forests) in forest management, in Chhattisgarh too this is an important part of forest policy. Within the JFM Committee there is provision for sale and distribution of NTFP. Every village was to set up aVillage Forest Protection Committees (VFPC) where it is essential to have women at the post of either President or Vice President. 33% of the members must be female of which if there are SHGs in the village, from each of them one representative from each will be selected compulsorily. The Working Committee of the VFPC must consist of the Sarpanch as well as Panchin the village, in Chhattisgarh since the PRI system has 50% women, they are well represented. Landless people will also be represented in the JFM committee, at least one male and one female.

The **National Forest Policy** states that in conservation of forests and wildlife local communities help must be used. Thus, it was also stated that the first right over forest produce lies with adivasisand other forest dwelling communities. This is one of the reasons why within the **JFM Scheme** the help of local communities is being sought.

The Forest Rights Act, 2006 called for tribal families to be recognized as the owners of land (upto four hectares) if they were cultivating the same before December 2005. It emphasized that women should get equal ownership of land along with their spouses. The FRA also calls for Gram Sabha to elect a village level Forest Right Committee with 1/3rdof its members being Scheduled Tribes out of which at least 1/3rdshould be women (whether STs or not).

The State Minor Forest Produce (Ownership of Forest Dependent Communities) Act states that the net income from the trade in MFP will be deposited with the Forest Dependent Community and utilized on the basis of an action plan created by them. 75 percent of this income can be distributed among the community members with the rest being used for regeneration and development of the forest area. The Forest Dependent Community is endowed with ownership rights of MFP and the right to sustainably collect, extract and transport MFP according to this Act. The profit-sharing mechanism within the Minor Forest Produce Federation (MFPF)works well, the State has taken a decision to distribute 100 percent profits from tendu leaves trade (amounting to about 150 crores annually) done by the MFPF, 80 percent of the profits will be given to collectors.

Key Issues:

The CSAPCCs tates that there has been an increased rate of consumption of bio resources due to uncontrolled grazing for sustenance, collection of fire wood, food security and population pressure. Mining and related industries which have come up have led to destruction of rich habitats including biodiversity rich forests. This has also had an impact on the lives and livelihoods of the most vulnerable especially tribal and

other forest dwelling communities. Any short or long-term fluctuations in climate can have dramatic effects on forest productivity and impact forest dependent communities and their livelihoods. These are mostly tribal and backward communities who are solely dependent on the forest for their livelihood. However, the forestry sector is one sector in Chhattisgarh where GESI issues have been included to a considerable extent in policy as compared to the other sectors, although the actual implementation falls short.

The CSAPCC states that constitution or revitalization of JFMCs and forest protection committees is important and their capacities must be developed to develop community conserved areas and encourage regeneration of trees. As mentioned in the CSAPCC, the Forest Department has been supporting livelihoods through Forest Management Committees, cooperatives and women SHGs. Chhattisgarh currently has 7887 JFMCs with 27.63 Lakh members. While the JFM Act has been very progressive, the implementation within the State could improve. There are still many tribals and other traditional forest dwellers (OTFD) who have claimed FRA rights but have not received the same.

Unlike the JFM Scheme, the State Minor Forest Produce (Ownership of Forest Dependent Communities) Actdoes not specifically call for 33 percent women to be involved and could be one of the GESI relevant revisions that may be considered.

Recommendations

As mentioned above, most Forest sector policies in the state do take GESI issues into consideration. Hence for forest sector, the focus should be more on streamlining the implementation of the policies and minor revisions of the policies to make the participation of women explicit in all the policies. The State must also ensure that when private players are brought in (for value addition in NTFPs, growing medicinal plants etc) the rights of people are maintained and they get a good share of the benefits. For instance, while planning for REDD+ as detailed in the CSAPCC, the state needs to be conscious of involving local communities especially women in a participatory manner. Consultations with communities to understand what species they want planted, what has been traditionally grown etc. is also important.

Listed below are some of the interventions planned in the CSAPCC and the GESI action points for the same:

CSAPCC Action	Activities to be Undertaken as Mentioned in the CSAPCC	GESI Action Points
Capacity building	Capacity building of department personnel and stakeholders	Ensuring that GESI aspects are carefully looked into, while understanding climate change. *Making sure women and vulnerable groups are part of the process and given IEC. *At least 33% involvement of women and vulnerable groups.
Research	Study on forest and NTFP dependence of communities. Study on potential for REDD+	*Emphasize the GESI aspects within the forest-community interdependence While formulating REDD+ projects, analyse and design GESI aspects in management and profit sharing of the projects
Planning	Review of forest workingplans and incorporation ofclimate concerns Activation of StateBiodiversity Board; development of multiannualaction plans	While including specific climate concerns in the forest plan and the development of biodiversity plans, include separate sections highlighting the disproportionate effect of climate change on different social groups and align the plans to address such effects

CSAPCC Action	Activities to be Undertaken as Mentioned in the CSAPCC	GESI Action Points
Monitoring and Evaluation	Quarterly monitoring reports Internal Annual Review of sector implementation under CSAPCC	*Gender disaggregated data for trainings, beneficiaries reached out to etc.
Knowledge Management	Documentation on community perceptions of climate change and impacts	*Research studies on climate change and vulnerability in the sector. Bring in community voices.
Networking & Linkages	Institutional linkages with research/academic institutions. Consultations with communities	*To make sure women and vulnerable people are part of the consultations with communities.

4. URBAN DEVELOPMENT

Background

Large number of urban poor families live in slums, as per 2011 census the urban population of Chhattisgarh is 5,937,237 and 18, 98,931 families live in slums. These slums also pose as big risk zones, since they are largely unhygienic and unsafe thus increasing the incidence of disease. According to the CSAPCC, climate change adds to the existing stress on the sustainability of human settlements and society, and causes vulnerability. It must also be pointed out that women are doubly disadvantaged in such situations and many mothers and girls are burdened with looking after both their families and themselves because of cultural obligations. Women living in urban slums, unlike their rural counterparts, very often need to travel within the city for livelihood which exposes them to heat stress in summers and adverse weather conditions.

As stated in the CSAPCC, the State plans to engage PPP based models for public transportation, waste disposal and infrastructure development in small and medium towns.

Integrated slum development is taking place by pooling state resources with the **Pradhan Mantri Awas Yojna** for developing low cost housing for existing slums and providing them clean drinking water, sanitation and other basic civic amenities. Raipur is one of the 35 capitals selected for this scheme while some of the districts in Chhattisgarh will also get included.

One of the important agendas within Urban Development has been to ensure that the poor in urban areas are catered to through various schemes. For instance, through the **Landless People Act**, urban poor who do not have a place of their own are ensured a house to stay. Through the Pandit Deendayal Upadhyay Self Employment Scheme and Mukhyamantri Self Employment Scheme also the state is reaching out to the urban poor, to street vendors by giving them revenue and by giving the urban youth (boys and girls) revenue and spaces to set up shops.

Notably, the Central Government has sanctioned proposals worth Rs 2193 crore under the **AMRUT (Atal Mission for Rejuvenation and Urban Transformation)** Mission for the duration of 2015-16 to 2019-20. This scheme focuses on water supply, sewerage and septage management, storm water drains to reduce flooding and public transportation among other things. Some of the household level things such as ensuring that every household has a tap with assured water supply and a sewerage connection are expected to benefit all citizens especially women. The schemes cover nine cities mainly-- Raipur, Bilaspur, Durg, Bhilai, Rajnandgaon, Ambikapur, Jagdalpur, Raigarh and Korba.

The Deendayal Antodaya Yojna- National Urban Livelihood Mission is also a good Central scheme being implemented by the State. This reserves 30 percent for women, 15 percent for minorities, 3 percent for the specially challenged and according to the SC, ST population in cities there is an equivalent percentage reserved for them. The scheme which is quite comprehensive, focuses on Social Mobilization, Self-Employment and Schemes to help the Urban Poor among other things. In the trainings imparted the focus is on benefitting women and SHG groups.

The Ambikapur model¹³ (Headquarters of Surguja District) of Solid Waste Management has proven itself as one of the most successful models of waste management involving women, in the process, giving them employment and making them self-sufficient. This model is now being adopted on a large scale in 165 urban local bodies under the name 'Mission Clean City'. Many local women are involved in this as SafaiMitras in SHGs for which they are paid an honorarium. On similar lines the Swacchh Bharat Mission has also given local employment to more than 8194 members mostly belonging to women SHGs.

Key Issues

The State's urban development sector faces a number of key challenges. With growing urban populations in both cities and towns, the existing infrastructure and services deficit will only widen further increasing risks. According to the CSAPCC, the acute shortage of resources and capacities poses as a big challenge to urban development. Funds available for small towns and cities are meagre and mostly dependent on State resources and grants from the Finance Commission. Service level benchmarking (SLB) carried out by the Ministry of Urban Development, Government of India data for 43 cities and towns in the State shows significant deficits in terms of service levels for water supply, sewerage, solid waste management, and storm water drainage. For example, the typical hours of water supply delivery range from 2 to 4 hours. All these issues are significant in the context of climate change as deficit in these services are likely to be impacted in climate change scenarios.

Another issue in urban development is the rehabilitation of homeless people to protect them from nature, with or without climate change. Climate change could affect the water supply systems, affecting water demand for both drinking and cooling systems. More heat is likely to increase cooling loads and extreme weather conditions could lead to urban flooding in places which are least prepared for it.

One of the major areas that have not got any focus in the sector is on the prevention of heat islanding which affects person exposed to working/commuting but is likely to affect women, children and undernourished, impoverished sections of the society most.

Recommendations

The Government can further ensure that for each of the schemes, wherever possible, there are at least 33% women beneficiaries. Gender disaggregated data on the beneficiaries can also be collected to ensure the same. It is necessary that while planning for urban development, the effects of heat, especially on women and children, are considered and natural ventilation, heat sinks in the form of waterbodies, shaded rest areas, urban plantations are taken up.

¹³Ambikapur (Solid Liquid Resource Management) Model treats waste as a resource and not just as garbage. The biggest advantage of this model is that it has stopped the need for trenching grounds and molding. Each SLRM centre is run by women SHGs who are trained to collect waste door-to-door in tri-cycles or e-rickshaws and segregate the same. Organic waste is also recycled into compost. The model is both scientific, financially secure and environment friendly.

Listed below are some of the interventions planned in the CSAPCC and the GESI action points for the same:

CSAPCC Action	Activities to be Undertaken as Mentioned in the CSAPCC	GESI Action Points
Capacity building	Capacity building of department personnel and stakeholders including ULBs	Special focus on capacity building of women and marginalized communities
Monitoring and Evaluation	Annual review and Quarterly reviews of the CSAPCC	Seeing how many women and disadvantaged communities have been reached as part of the schemes. Have women and disadvantaged reach as one of the key indicators of success.
Knowledge Management	Documentation on community perceptions of CC and impacts	Research studies on climate change and vulnerability in the sector to include GESI issues. Community perception should be represented by all layers of society including women, children and urban poor.
Adoption of renewable energy	Promotion of waste to energy projects to use biodegradable waste.	Encourage women to use LPG etc. and gradually reduce fuelwood consumption. Expand the Ambikapur Model to involve women in waste to energy generation projects
Urban Transportation	Encouraging the use of non-motorised transport. Shifting from private to public transport	Encouraging women to use public transport through creating special seats for them in buses. Distributing cycles among youth especially girls.

5. WATER RESOURCES

Background

Water is a very important resource for the Chhattisgarh state given that 80% of the people depend on agriculture for their livelihood. Water needs to be managed as a community resource under the custody of the State, to achieve food security, livelihood and an equitable and sustainable development for all.

Water Users Association (WUA) is an essential part of the WRD department at village level. Experience has shown that greater community involvement in the management of piped water schemes has a higher probability of success (CSAPCC).

The Chhattisgarh Sinchai Prabandhan Mein Krishko ki Bhagidari Act, 2006 (Chhattisgarh Involvement of Farmers in Irrigation Act) details how Water User Associations (WUAs) should be created. There are seats reserved in the management committees for SCs, STs and OBCs in proportion with the number of water users in the area from such groups in the committee but not exceeding 50%. 1/3rd of the total number of seats are also reserved for women. These provisions are at every level whether for State Committee, the local WUA, the NGOs who are part of this process etc. State level farmers federation which will have at least 1/3rd women are also mentioned in the Act.

¹⁴Chhattisgarh State Water Policy 2012

The Water Resource Department annual plan talks of benefits to STs and SCs- this includes irrigation schemes which will benefit at least 50% STs and at least 50% SCs and at least 50% of their land will be benefited ¹⁵. The Chhattisgarh Government has encouraged private investments in the water resource department given that huge investments are required.

The **MGNREGS** is also implemented by the Water Resources Department where work pertaining to their Department comes up. Some of the water conservation and water harvesting works included in the MGNREGS include construction of ponds, digging of wells, field bunding etc.

The Water Resource Department is also working in conjunction with other Departments and the MGNREGS programme for efforts to rejuvenate rivers in the State.

Key Issues

Though many rivers in Chhattisgarh are perennial, due to rapid run-off and evaporation, the land dries up very quickly after the monsoons and a very negligible amount of the water can be used for agriculture.

As per the CSAPCC, Chhattisgarh faces a range of issues related to water resources- unplanned urban development, threats to the resource base from pollution and development of new infrastructure and maintenance and operation of existing infrastructure. Groundwater tables in the state have also been declining. As mentioned in the **State Water Policy (2012)** quality conservation is even more important for ground water since cleaning this up is even more difficult. While the WUA Act has a detailed explanation of how women, SC, ST and OBC will be involved, the Water Policy for Chhattisgarh does not detail out the same and does not have any mention of these categories, how they will be involved or benefited.

River basins of Mahanadi, Godavari, Ganga and Narmada cover a large part of Chhattisgarh. Large presence of forests help in ground water recharge but pockets with a high concentration of population and industry now face water shortage. According to the CSAPCC, the hydrogeology of the State does not support quick recharge due to large presence of hard upper crust and very few regions with water yielding mediums.

According to the CSAPCC climate change can affect the hydrological regime changing water flows, precipitation levels and evaporation. These changes could affect communities since the pressure on natural resources and the environment would increase drastically; crop yields could decrease, water in rivers would be affected, all this could affect food security. Extreme events like floods and droughts cause further stresses.

Recommendations

The WUAs along with the Village Water & /Sanitation Committees have a crucial role to play in the management of water, improving health and sanitation and reducing health and mortality. These committees could also be good institutions to hold together disaster preparedness efforts. Trainings must accordingly be given. The Village Panchayats also need to be part of these efforts.

Under MGNREGA, the Water Resources Department can ensure benefits to SC, ST, disabled and women headed households.

¹⁵Chhattisgarh Government, Water Resource Department, Annual Working Plan 2017-18

Listed below are some of the interventions planned in the CSAPCC and the GESI action points for the same:

CSAPCC Action	Activities to be Undertaken as Mentioned in the CSAPCC	GESI Action Points
Policy Formulation	Formulation of State Water Policy; incorporation of climate concerns (based on sector vulnerability assessment)	The current Water Policy does not mention how women, SC, ST and other marginalized groups can be involved, benefited. This needs to be included.
Research	Study on poverty and equity issues in the Water sector, incorporation of findings into planning	The activity in itself should look to incorporating GESI concerns. This study needs to be completed at the earliest and water resource planning based on it.
Monitoring and Evaluation	Annual review and Quarterly reviews of the CSAPCC	Data on status of SC, ST, Women and other vulnerable groups reached needs to be compiled. Gender disaggregated data needs to be maintained.
Networking & Linkages	Consultations with civil society and community	Stakeholder consultation must include women, dalits and tribals
Capacity Building	Capacity building of department personnel and stakeholders including PRIs, urban local bodies and WUAs in participatory management of water facilities	Since both PRIs and WUAs have good representation of women and SCs, STs, capacity building of these bodies will help to integrate GESI concerns in policy. The training or capacity building activities should also look into different needs of the different group of stakeholders while designing the capacity building activities.

6. TRANSPORT

Background

A BRTS is under implementation in Naya Raipur under World Bank support. This is a demonstration project for World Bank's Sustainable Urban Transport Project. There is another ADB assisted Chhattisgarh State Roads Development Project. There is a Chhattisgarh Mukhyamantri Public Cycle Sharing Scheme, which could encourage more people to use public and non-polluting cycles.

As far as schemes for the upliftment of weaker sections go, in Chhattisgarh, farmers have been given exemption from taxes on Combined 'Harvester' Vehicles from the State¹⁶. This is being done for the welfare of farmers who constitute 80% of the population in the state.

The Government also gives exemptions for individuals in state owned vehicles in the category of disabled, HIV victims, retired individuals who are above 80, they and an accompanying person get a 100% discount on passenger fares. Additionally, for those affected by Naxalism too there is a 50% discount in passenger fares.

¹⁶Chhattisgarh Government, Transport Department, Annual Administrative Plan- 2017

Through CG- E- Rickshaw Subsidy Yojna, poor people in the state can benefit apart from the scheme being environment friendly. People are given 50,000 as subsidy for this scheme by the Labour Department in order to purchase and run an e-rickshaw. The benefits of this can be enjoyed by those submitting BPL card proofs or SC and ST people.

Key Issues

As a result of the inadequate rail transport facilities in Chhattisgarh, road transport occupies an important place for the transport of goods and people within the State¹⁷. The number of vehicles in Chhattisgarh have gone up, thus increasing air pollution from vehicular emissions. Also, public transportation in both urban and rural areas is grossly inadequate and consists of mostly outdated fleets, which is a cause of concern because of pollution caused by vehicular emissions. From the time of Chhattisgarh becoming a state, the transport sector has been privatised.

According to the CSAPCC, there is increasing congestion, especially in urban centres. However, there are very few public transport facilities thus forcing more people to buy and use their own vehicles (almost all of which are propelled by internal combustion engines). This contributes to more volume of emissions, this is a large proportion of pollutants. Such air pollutants are a cause of cardiovascular/ pulmonary and respiratory disease (CSAPCC). Children are particularly vulnerable and they can suffer from learning disabilities, impaired growth and hearing problems.

There are also issues of high forest cover and the Left Wing Effected (LWE) districts where it is difficult to penetrate because of Naxal activity making it unsafe terrain. Repair and upkeep of roads is difficult in such areas and new roads proposed, meet with lot of resistance. There is also a need to move carefully with proper ecological infrastructure planning while laying roads, railway lines etc.so as to cause minimal damage to the environment.

Recommendations

The Transport section in the SAPCC is focused more on infrastructure of roads and transports facilities. As such, while reducing transport emissions significant from Climate perspective, it is not very relevant from GESI perspective. Additionally, both the CSAPCC and the Department had very little information available and of what was available there was not much which had relevance to GESI.

More people should be encouraged to use public transport by providing passenger fare concessions. Special concessions could be provided for women and marginal communities on usage of public transportation. Encouragement could be provided to women and specially abled persons to use public transportation by reserving seats for them in buses, trains etc., including better designed buses for ease of access.

The e-rickshaw scheme may be used to promote e-rickshaws by providing subsidy specifically to women by the Transport Department in convergence with the Labour Department and Women and Child Development Department (WCD).

¹⁷CSAPCC

7. ENERGY

Background

Chhattisgarh is one of the power hubs of India. Raipur and Bilaspur have been selected to be Solar City Projects of Ministry of New and Renewable Energy (MNRE) with a target to reduce energy consumption upto 10 percent through energy efficiency and renewable energy installations. Some of the different agencies concerned with energy are:

Chhattisgarh Renewable Energy Development Agency (CREDA)-

The State sees renewable energy development as significantly important. CREDA is the state nodal agency of Ministry of New and Renewable Energy (MNRE). As mentioned in the CSAPCC, RE based power plants currently generate over 5 percent of the total power generation of the State. In order to further promote RE power, the State has announced state policies to promote solar, wind, hydro and biomass power projects¹⁸. CREDA has also made significant efforts to electrify remote un-electrified villages and hamlets through solar photo-voltaic (SPV). CREDA's other initiatives include electrification of tribal hostels, health centres and installation of SPV pumps for drinking water supply and irrigation in far flung villages

Chhattisgarh Biofuel Development Authority (CBDA)-

As discussed in the CSAPCC, the CBDA was set up for promotion of bio-fuel in January 2005. One of the main aims was to promote renewable energy through harnessing bio-fuel energy. In addition, it also sought to generate rural employment and increase rural income and women empowerment. CBDA also aims to sensitize farmers, investors and other stakeholders.

The **SaubhagyaYojna**¹⁹ implemented by the State Government aims to provide every home in every village and every city with electricity. The target is that by 31st March 2019 every home should have electricity. 5 LED lamps, 1 fan and one battery will also be given to each family. The plan is to benefit more than 3 Crore families with this Scheme. There will also be subsidy given for transformers, meters and electricity lines. The aim is also to be more energy efficient and save on electricity by using LED lights etc. People from BPL and other backward households can take advantage of this Scheme by availing the same.

Like the SaubhagyaYojna, the **Rajiv Gandhi Grameen Vidyutikaran Yojnaa** Central Government scheme also aims to provide electricity for BPL families through a free connection but chargeable use of power. The aim is to electrify all villages and habitations under this Scheme.

Key Issues

The power sector has not yet reached some of the poorest within the State and many of the places where power is drawn from are legally contested spaces where local communitiesclaim adequate permissions of the Gram Sabha have not been given such as in the Hasdeo area. Many forested and LWE areas are still not sufficiently connected to the grid. The challenge is to provide an uninterrupted and metered power supply to all the villages and habitation, through line extension or off-grid solutions.

Absence of gender and socially disaggregated data for beneficiaries of the different schemes is one of the key GESI issues within the sector.

¹⁸CSAPCC

¹⁹ https://www.cspdcl.co.in/cseb/(S(rt0j1h4hdcz2wesxwqnapgma))/frmRGGVYIndex.aspx

Recommendations

The CSAPCC states that rural electrification is one of the highest priorities of the State. It also states that because of the problems in electrification in dense forest areas, villages will be electrified through non-conventional energy resources wherever possible.

It is suggested that CREDA and CBDA find innovative ways of including women, SCs and STs in their schemes through coordination with Departments like the Women and Child Development (WCD). For example, while promoting off-grid solar systems, training may be provided to women and marginalized sections to install and maintain the systems by themselves. This will generate livelihood options among the local population as well. The same can be done with bio-fuel generation. Solar water pump distribution could be targeted for the weaker section of the society first or, in coordination with the water resource department, people in the tail reach of field channels.

Energy for Agriculture- Keeping in view the importance of agriculture in the State's economic development the CSAPCC states that priority should be accorded to energisation of agriculture pump sets and lift irrigation schemes. Making sure the power needs within agriculture are met is crucial. The needs of women and marginalized communities must be prioritized. This includes single women, women headed households, dalits and tribals. This would automatically benefit huge number of women involved in agriculture in the state.

The CSAPCC states that to compensate for the negative externalities that the host State bears, in terms of degradation of its land and water resources it needs to be given ten percent free power or allowed to impose a duty on the power generated. These resources can then be used for rehabilitating the surrounding population and natural resources.

Listed below are some of the interventions planned in the CSAPCC and the GESI action points for the same:

CSAPCC Action	Activities to be Undertaken as Mentioned in the CSAPCC	GESI Action Points
Capacity Building	Capacity building of department personnel and stakeholders	Special focus on capacity building of women and marginalized communities and mainstreaming their needs
Research	Study on poverty and equity issues in energy sector, incorporation of findings into energy sector planning	Since this has not been carried out as yet needs to be done soon incorporating GESI concerns.
Monitoring and Evaluation	Annual review and Quarterly reviews of the CSAPCC	Seeing how many women and marginalized communities have been reached as part of the schemes. Maintaining gender and caste disaggregated data. Evaluation of projects should keep the above as one of the key indicators of success
Knowledge Management	Identification of potential research and development domains concerned with CC issues in the sector and initiating studies	The studies must also include voices of the marginalized women and other
Networking & Linkages	Consultations with civil society and community	Must include women and other marginalized sections of the society including dalits and tribals

8. INDUSTRIES AND MINING

Background

Chhattisgarh is one of the richest states in India with regard to mineral wealth, with 28 varieties of major minerals and ranks second in the country in mineral production (CSAPCC). It is a source of electricity and steel for the entire country and accounts for 15% of the steel produced. The State also provides electricity to other states because of surplus production. Because of the surplus of coal, the state has been providing 19.32% of the total national coal output, it also has 16.20% of the total iron ore deposit in the country²⁰ and ranks third among the iron ore producing states. Chhattisgarh has a reputation for being 'the power hub' of India. The state is also a steel hub with the Bhillai Steel Plant producing 3 million tonnes of iron and steel per annum. 15 percent of India's cement is produced here.

According to the CSAPCC, the State Labour Commissionerate has been created to encourage an industry friendly policy which can simplify the complexities of labour laws. The State Unorganized Workers Social Security Act has also been created in 2010 and a Social Security Board for Unorganized Workers formed in 2011. In the mining sector, the CECB suggests a phased/controlled approach to forest felling in large mining leases. The environmental damages caused by mining need to be brought to the minimal.

Establishing industries in sectors which are environment friendly and which rely on skilled manpower, is a priority for the Government²¹. These include Agriculture, Food Processing, MFP, Herbal and Forest Medicine Processing etc. Efforts are also on to provide greater economic benefits to the weaker sections of society including SCs/STs, differently abled persons, women, Naxalism affected families and to bring them into the mainstream of industrial development.

The recent **Industrial Policy** calls for an Employment Subsidy for Disabled Persons²² if they are given permanent employment in any of the existing industries. Chhattisgarh also has a category of people who it specially caters to called 'Persons Affected by Naxalism'. Women Entrepreneurs, persons with disabilities and persons affected by Naxalism will be extended 10 percent additional subsidy and the maximum limit of subsidy will be increased by 10 per cent in addition to subsidies for general category entrepreneurs. To bring the SCs/STs of the State into the mainstream of industrial development, they are given special economic packages.

The Government has also made efforts to include/develop all developmental blocks of most backward tribal dominated districts and industrially backward developmental blocks as per the Industrial Policy by giving tax subsidies and lower premium rates in these areas.

There is also a special economic package spelt out for SCs and STs in the State. Within this in the backward industrial areas the state gives special interest subsides and fixed capital investment subsidy, for example in the micro and small industry general industries will be given 75% of the total interest, paid up to 6 years with a maximum limit of Rs. 40 lakh per year and the industries of priority sector (SC/ ST etc) 75% of the total interest, paid up to 7 years with a maximum limit of Rs. 50 lakh per year. Similarly, there are special provisions for SC/ ST in medium and large industries as well as mega projects and ultra-mega projects. Comprehensive details of electricity duty exemptions, quality certification subsidy, technical patent subsidy and other economic incentives for SC and ST are mentioned in the Industrial Policy (2014-19) of the Government. While it is difficult to track implementation of such policies/ schemes, the Policy in itself is quite comprehensive and inclusionary.

 $^{^{20}\,}https://www.business-standard.com/article/economy-policy/chhattisgarh-registers-fivefold-increase-in-mineral-revenue-116101300326_1.html$

²¹ Industrial Policy 2014-19, Government of Chhattisgarh, Department of Commerce & Industries

²² Industrial Policy 2014-19, Government of CG

Mines, minerals (Development and Regulation) Act amended in 2016 details the process and conditions for acquiring a mining or prospecting license in India. The MMDR Act also stipulates that State Governments while making rules for the District Mineral Foundation (DMF) shall keep the provisions contained in the Fifth and Sixth Schedules to the Constitution (for tribal dominated areas), Panchayat Extension to Schedule Areas Act, 1996 and the Forest Rights Act, 2006 in view. The DMF was instituted with the enactment of the MMDR Act in 2015. Established as a non-profit trust, DMFs in every District are supposed to 'work for the interest and benefit of persons and areas affected by mining related operations'. Miners and mining companies have to pay a sum, on the basis of their royalty payments to the DMF Trust in the District where the mine is located ²³. The DMF is a large chunk of funds which can be used for the upliftment of those communities who have been affected by mining activities, given the large presence of tribal population in Chhattisgarh and the mines being located in many tribal dominated districts this could bring in a lot of money for the welfare of people. DMF money can also be used for repairing environmental damage in mining areas as decided by the community.

Key Issues

Due to the presence of large number of factories, Chhattisgarh also needs to look into the area of workers' rights. The Dalli-Rajhara area in Chhattisgarh which has steel mines is famous for many uprisings by workers for lack of decent rights, wages etc.

Agro processing- According to the CSAPCC while there is a huge volume of inter-state trade of agricultural commodities and Non-Timber Forest Products, the processing facilities are very few. This should be the priority within the next plan, promotion of agro/agro-processing industries must be done.

The above-mentioned issues and schemes in Chhattisgarh have however little to do with climate change mitigation or adaptation though these indirectly help to bring some sections of the marginalized out of poverty thereby increasing there resilience by giving them additional/alternate sources of livelihood. The climate concerns within the industry and mining sector is largely regarding emission reduction and mitigation. These are mostly technical solutions which are GESI neutral.

One of the key areas within the industry and mining sector related to climate change adaptation is to address heat exposure of the workers which is particularly severe in the summer months in mining areas. Any employees, but especially women employees, are susceptible to heat stress which needs to be addressed in the industry and mining policies and suitable and adequate safeguards should be introduced.

²³https://www.cseindia.org/district-mineral-foundation-dmf--7803

Summary And Conclusion

The CSAPCC has made some efforts in identifying GESI issues within the mandate of the CSAPCC. While this is praiseworthy, the CSAPCC is quite uneven with its treatment of GESI issues across the different sectors. The biggest barrier towards having a GESI sensitized CSAPCC is the lack of gender and socially segregated data across all the different with some departments marginally better off than others while some other like transport or industries and mining having very little data, if any.

Within the **Agriculture sector** women farmers face difficulty in accessing inputs, extension services and subsidies, credit for taking up agriculture primarily because land is most of the time not in their name which prevents them from availing services which cater to landholders. However, in many schemes of the Government the preference is for women, SC and ST. Women SHGs are encouraged in Agriculture and Allied sectors. A good step is that 33% of the money in all schemes is allocated for women. Going forward, the gender and social inclusion issues should be identified at the time of budget planning and funding should be earmarked for specific GESI activities right from the planning stages. Efforts must also be made to have women as land owners just as it has been done in the Forest Right Act. In the absence of such land holding rights, as an interim measure, women agriculture workers need to identified and schemes needs to be tailored to cater to women farmers even in the absence of land rights.

In the **Forests and Biodiversity** sector some progressive steps have been taken, for instance in JFM Committees there is 33% reservation and reservation for landless and tribals. However, while it is stated that the first right over forest produce must be with adivasis this is not the case, because tribals simply collect the forest produce and give it to the MFP Centres or agents, a large part of the profits from there onwards goes to others in the value chain. In addition, in many states including Chhattisgarh tribals are still not allowed to collect high value produce like bamboo even though law permits them. The laws are progressive and GESI sensitive but actual implementation is not. Hence, the focus for the sector should be on implementing the policies of the sector in spirit.

Within the **Health sector** because of the nature of many schemes being focused on women and children to an extent, the health of women and children do get prioritized. Some of the schemes like the CM KhadyaanSahaytaYojna have also focused on the most vulnerable categories like PVTGs, disabled, women headed HHs etc. However, since not much work has been done on climate change vulnerabilities and health risks within the CSAPCC as well, one important action required in the health sector is to map the effects of climate change and health in Chhattisgarh, clearly identifying the effects on gender and socially backward communities, map out the vulnerable areas within the state which could potentially become more vulnerable in future and develop inclusive policies based on this.

Within **Urban Development**, while there might be some subsidies given for women within the PM AwasYojna and other schemes, one cannot gauge the actual beneficiaries because segregated data is not available on the same. Some of the Acts like the NULM do cater to the urban poor and reserve places for women, minorities etc. according to their percentage in the population. Then there are schemes which focus on women, using their services and in the process giving them employment. The CSAPCC itself in its revision needs to look at urban development issues affected by climate change, such as urban flooding, heat island effect, urban drinking water issues which would enable us to understand GESI needs better.

In the **Water Resources** sector, in Water User Associations there are places reserved for SCs, STs, OBCs and women (1/3rd) in proportion with the number of water users in the area from such groups. The Department is progressive on some counts but lagging in others. For instance the Water Policy of Chhattisgarh state does not mention SC, ST, women etc so it needs to be reworked with GESI aspects.

Within the **Transport sector**, both the CSAPCC and the Department had very little information available and of what was available there was not much which had relevance to GESI. Some exemptions and subsidies have been given to certain categories of peoples in transportation fees/ for agriculture etc but apart from that not much information regarding GESI issues could be elicited. This sector needs thorough brainstorming from GESI perspective in the revised CSAPCC. In the meantime, the available schemes within the sector could be suitably modified to include specific gender and social inclusion action points such as targeting women and marginalized population in the e-rickshaw scheme.

The **Energy sector** has made efforts to electrify all areas (in a GESI neutral way) but this has been a slow process. However, there are a good deal of schemes meant to cater to vulnerable populations- BPL households, farmers etc. One of the drawbacks is that there is no data showing the beneficiaries whether women, SC, ST etc, this definitely needs working on for one to track progress and plan new schemes with targetted beneficiaries.

Within **Industries and Mining sector** there are reservations for different vulnerable categories of people including persons affected by Naxalism. To bring SCs and STs into the mainstream of economic development they are given special packages. However, the climate concerns within the industry and mining sector are largely regarding emission reduction and mitigation. These are mostly technical solutions which are GESI neutral. Building resilience of people by making efforts to bring them out of poverty and giving them alternate sources of livelihood are however good steps.

In addition to the sectoral recommendations, there are certain cross-sectoral actions which should be considered while revising the CSAPCC. These include:

- Ensuring gender disaggregated data (and data for marginalized categories wherever applicable) for all schemes to track progress better. This data should be collected diligently and made available publicly through departmental websites. At present, hardly any data is available in any format in the Departmental websites. One of the major issues in accessing data for Chhattisgarh is that whatever little data is available, it is available in Hindi and in most cases non-searchable formats (scanned documents, image files etc.). It is suggested that Government of Chhattisgarh revisit their data storing and publication policy and publish the data in searchable formats both in Hindi as well as English.
- The gender budget of Chhattisgarh presently just looks into the budgetary allocation in different women centric schemes. However, it is suggested that gender and social inclusion issues are identified right atthe planning phase itself, make the programme/scheme designs suitably inclusive through consultations with stakeholders and funds or funding components within schemes be specifically and explicitly allocated for vulnerable categories and women. Desegregation of targeted beneficiaries right at the scheme design stages is likely to help in better delivery of the schemes and better messaging focused towards the welfare of the most vulnerable population of the state.
- Revision of the CSAPCC at sectoral level must include cross-sectoral committees including the Women and Child Development Department and the Panchayat and Rural Development Department. It is suggested that P&RD Department should be added as one of the key sectors of the CSAPCC since it is one of the major departments which cater to the most vulnerable population of the state at the ground level and most of its schemes focus on protecting and enhancing the livelihood of people at the grassroot level. Special attention must be given to include GESI aspects better in the new version.



