

Climate Change Relevance of Odisha Budget

The importance of undertaking an analysis of public expenditure in sectors critical for achieving Odisha’s climate response agenda stems from the need to **secure development benefits of large scale funding programmes from potential future losses that climate change would exacerbate**. Subsequently, a Phased Climate Change Impact Appraisal (CCIA) analysis has been conducted, highlighting two major dimensions of programme-level linkages with climate change:

1. How benefits from development programmes **additionally contribute to improving resilience** to climate change. This is denoted by Climate Change Relevance Share (CCRS)
2. How programme benefits are likely **to be impacted by climate change** itself in the absence of climate change specific planning interventions. This is denoted by Climate Change Sensitivity Share (CCSS)

The following 11 key sectors have been analysed: Agriculture, Coast & Disaster Risk Management, Fisheries & Animal Resource Development, Forestry, Panchayati Raj, Rural Development, Transport, Urban Development, Energy, Health and Water Resources¹. Budgetary estimates of for 2017-18 and 2018-19, along with qualitative inputs from the relevant State Departments, have been used for applying the relevance and sensitivity scores for each sector. Both these scores have been applied as percentages to the outlay of a programme (and therefore to an entire sectoral budget), to gauge the relative extent of climate proofing effort that has to be undertaken to prevent loss of intended benefits through development plans. All the schemes analysed have been ranked based on their CCRS for the purpose of prioritisation by policy makers at the time of budget allocations to ensure maximum climate as well as welfare benefits.

The purpose of conducting a Phased CCIA analysis is to first identify which schemes to focus on, for improving climate resilience/mitigation outcomes, and then decide on whether securing these outcomes are to be done by re-designing a programme or by increasing funds allocated to some of its components. Figure 1 recapitulates these linkages to programme benefits, followed by an interpretation matrix indicating the different combinations of climate relevance and sensitivity amongst any programmes to highlight relevant follow-up actions needed:

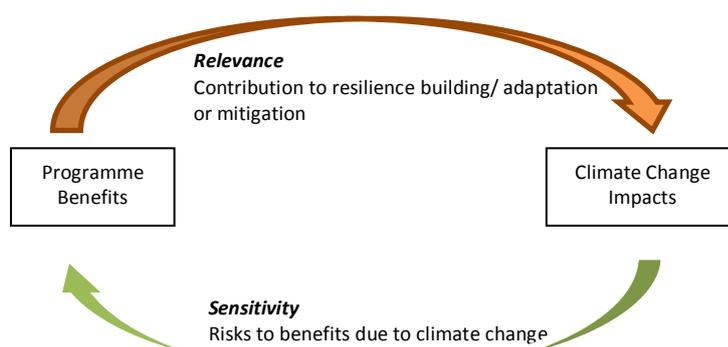


FIGURE 1: Significance of Climate Relevance and Sensitivity

Table 1: Matrix of climate relevance and sensitivity

Phased CCIA Score		Climate Relevance (resilience building/adaptation/mitigation)	
		High	Low
Climate Sensitivity (loss and damage due to floods or cyclones or droughts)	High	A high priority for scrutiny: Retain benefits with positive climate sensitivity Climate-proof benefits with negative sensitivity	Design changes to enhance climate resilience and alsomore climate proofing effort to insure against welfare losses from climate hazards (in case of negative sensitivity) In case of <i>positive</i> sensitivity, enhancing climate resilience would reap dual benefits
	Low	Climate change benefits accrue with relatively less impact (or loss) from climate risks – low hanging fruits	Regular monitoring and review effort – To explore the future scope of mainstreaming climate concerns. Comprehensive assessments needed to evaluate allocations in such programmes

Interventions with **high climate relevance** demand greater focus to understand and optimize resilience-building opportunities already inherent in the design of ongoing schemes to improve

¹¹Industries and Mining are two other sectors outlined in the SAPCC, however due to minor representation in the state budget, these sectors have not been presented in this draft.

resilience/adaptation or mitigation responses. On the other hand, those benefits that have **high climate sensitivity** would require climate-proofing effort, hence the planners could deliberate upon technical vis-à-vis financial adjustments based on the nature of activities and their benefits. This could be in terms of re-design of interventions to reduce climate vulnerability or increased funding towards components that already enhance resilience.

Using this approach, schemes with different degrees of relevance and sensitivity to climate change can be compared within each sector. This could potentially form the basis for a concerted mainstreaming and climate proofing initiative by the concerned State Departments. Integration of a simple, yet relatively objective, budget coding template with departmental budgets would be the way forward for the State if it were to measure the climate relevance and sensitivity of its expenditure. This would internally facilitate greater effectiveness of public expenditure in not just delivering welfare but also significant climate adaptation or mitigation benefits.

Through this analysis, it was observed that sectors such as Water Resources, Forestry and Energy show relatively higher climate change relevance. This indicates significant opportunities to incorporate adaptation and/or mitigation actions. Vulnerability to climate risks are high from expenditures in the Water Resources sector, followed by Energy, Panchayati Raj, Fisheries and Agriculture. A sector-wise scrutiny would inform policy makers of specific interventions that require significant attention for climate proofing and enhancing resilience. The table below summarises² the CCRS and CCSS of the different sectors analysed.

Table 2: Summary of CCRS and CCSS percentages for 2017-18 & 2018-19 Budgetary Estimates*

Dept.	Climate Change Relevant Share					Climate Change Sensitive Share (Negative) [#]				
	2017-18		2018-19		Change	2017-18		2018-19		Change
	Relevant budget	% of Total budget	Relevant budget	% of Total budget		Sensitive budget	% of Total budget	Sensitive budget	% of Total budget	
Agriculture	1499	45%	1618	45%	0%	1426	-43%	1558	-44%	1%
Disaster Management	288	45%	87	39%	-6%	245	-38%	97	-44%	6%
F & ARD	98	30%	120	29%	-1%	147	-45%	188	-46%	1%
F & E	150	55%	182	61%	6%	106	-39%	143	-48%	9%
H & FW	1201	37%	1261	37%	0%	712	-22%	710	-21%	-1%
PR & DW	2551	49%	3853	46%	-3%	2335	-45%	3413	-41%	-4%
RD	2137	38%	1568	37%	-1%	2017	-36%	1626	-38%	2%
Energy	617	52%	746	53%	1%	555	-47%	671	-47%	0%
Transport	103	31%	178	36%	5%	106	-32%	139	-28%	-4%
H & UD	1015	46%	1301	47%	1%	843	-38%	1078	-39%	1%
Water Resource	4587	59%	5286	59%	0%	4480	-57%	5103	-57%	0%

* All figures are in crores INR

[#]Negative indicates development benefit to be affected negatively due to climate change

For increase in climate relevance/decrease in climate sensitivity, changes are highlighted in green. For decrease in climate relevance/ increase in sensitivity, changes are highlighted in orange. No change in either is highlighted in blue.

²The scheme-wise calculations of CCRS and CCSS for all the sectors are available on the Climate Change Cell website http://climatechangecellodisha.org/budget_coding.html. The schemes analysed are marked as Y. Some schemes have not been included in the present analysis due to inadequate climate information. These are marked N. Schemes marked N* are new schemes introduced in 2018-19 budget and have been excluded from comparison in the present analysis.