ECONOMIC ANALYSIS (COMPLEMENTARY INFORMATION)

1. Social Welfare and Social Insurance Policy, Capacity of Staff, and Communication

1. Social welfare has undergone major reforms over the last 10 years with Asian Development Bank (ADB) support, but key issues such as fiscal sustainability, impact of welfare benefits, and effective targeting of vulnerable people and households still need to be addressed through the rationalization of social welfare benefits. As social protection will become more important in the future due to changes in the employment sector, and to address inequalities in income distribution and poverty, it is timely to update the social security sector strategy to develop a consensus on the way forward to 2020.[1] The project will finance database construction and will update the current poverty database. The updated poverty database will allow a better targeting of poor households and will support identification of better solutions to tackle social problems related to poverty. The evaluation of the economic benefit cannot be monetarily quantified so far as an evaluation will be possible once the efficiency of the current targeting will be analyzed and new measures will be defined during the envisaged project.

2. The project will finance focus group discussions, conferences, workshops, surveys, and a large capacity development and training component for social workers, insurance staff, and for managers of the MPDSP, SIGO, and GOSWS in order to implement rationalization targeting the poor, and provide better delivery of social services. These activities inclusive of a training of 2,400 social workers aim to improve the efficacy of the measures that will be defined after the survey.

3. The public awareness campaign will support the knowledge and accessibility of the new social welfare and social insurance policy. This will further support better targeting of the poor and vulnerable.

A. Economic Cost Assumption

4. Economic costs are based on the estimates of annual project costs. Base costs and physical contingencies were converted to economic costs on the basis of skilled and unskilled labor costs. In addition, recurrent costs have been included to cover maintenance of equipment and human resources.

5. All estimated taxes have been deducted and financial costs have been converted to economic prices through the application of a shadow wage factor of 1.2 for skilled workers and a shadow exchange rate factor of 1.019.[2]

6. Table 1 below represents the economic cost per year:

[1] The social security sector strategy was last updated in 2003; social security is to be understood as synonymous to social protection and includes social welfare and social insurance, among others.

[2] ADB. 2003. Economic Analysis of Projects. *Operations Manual.* OM G1/OP. Manila (B.[vi][b]) states that a low economic internal rate of return is acceptable when there are substantial unquantifiable benefits.

Table 1: Economic Cost by Year
($ million)

Item	Total Cost	2014	2015	2016	2017	Application of Skilled Work Factor
Consultants	0.53	0.31	0.05	0.02	0.00	1.2
Equipment	8.97	0.02	8.41	0.54	-	
Design and Implementation of IT solutions	3.23	0.15	1.39	1.09	0.60	SERF 1.019
Training	0.49	-	-	0.22	0.26	SERF 1.019
Database construction and maintenance	3.17	0.02	0.71	1.23	1.22	SERF 1.019
Public communication support	0.39	0.02	0.10	0.17	0.11	SERF 1.019
Workshops and other participatory activities	0.48	0.12	0.12	0.12	0.12	SERF 1.019
Project management	0.48	0.12	0.12	0.12	0.12	SERF 1.019
Upgrade and enhancement of IT system	1.02	-	0.34	0.34	0.35	SERF 1.019
Human resources	0.78	-	0.26	0.26	0.26	SERF 1.019
Project management O&M	0.16	0.02	0.05	0.05	0.05	SERF 1.019
Physical contingency	1.01	0.04	0.58	0.22	0.16	SERF 1.019
Total	**20.17**	**0.82**	**12.12**	**4.38**	**3.23**	

IT = information technology, O&M= operation and maintenance, SERF = shadow exchange rate factor.
Source: Asian Development Bank estimates.

B. Economic Internal Rate of Return

7. Using conservative estimate of project implementation, and considering that only the economic benefit for project output 3.2 has been monetarily quantified, the economic internal rate of return (EIRR) for the project is 14.85% reflecting the limitation of more quantifiable economic benefit of the social welfare and social insurance policy, capacity of staff, and communication project which can only be quantified once the analysis and studies have suggested the most appropriate measures to target the vulnerable and the poor. By reducing the total value of the economic benefit by 15% the EIRR is 12.13% and by reducing the total value of the economic benefit by 20% the EIRR is 11.16% (footnote 2).

8. In Table 2, a summary of the calculation of the EIRR is represented. A total amount of $0.35 million per year to cover maintenance of equipment and human resources is considered. This is calculated using a usual benchmark of 3.5% for maintenance cost of the investment of approximately $10 million of equipment. To be conservative, it is assumed that the economic benefit will start with 30% from the year 2017 and 100% of economic benefit is expected for 2018; however, some economic benefit could start already in year 2016.

Table 2: Economic Internal Rate of Return
($ million)

Year	Investment Cost	Recurrent Cost	Economic Benefit	Total	EIRR
2014	0.82	-	-	(0.82)	**14.85%**
2015	10.92	-	-	(10.92)	
2016	4.38	-	-	(4.38)	

Year	Investment Cost	Recurrent Cost	Economic Benefit	Total	EIRR
2017	3.23	-	1.22	(2.01)	
2018	-	0.35	4.07	3.72	
2019	-	0.35	4.07	3.72	
2020	-	0.35	4.07	3.72	
2021	-	0.35	4.07	3.72	
2022	-	0.35	4.07	3.72	
2023	-	0.35	4.07	3.72	
2024	-	0.35	4.07	3.72	
2025	-	0.35	4.07	3.72	
2026	-	0.35	4.07	3.72	
2027	-	0.35	4.07	3.72	
2028	-	0.35	4.07	3.72	
2029	-	0.35	4.07	3.72	
2030	-	0.35	4.07	3.72	
2031	-	0.35	4.07	3.72	
2032	-	0.35	4.07	3.72	
2033	-	0.35	4.07	3.72	
2034	-	0.35	4.07	3.72	

Source: Asian Development Bank estimates.