Investment approach in mainstreaming disability toward achieving sustainable development goals

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Background

- SDGs contains 17 goals
- Due to the collective efforts from all stakeholders, disability has been included in some of the goals and indicators
- This is with the realization that development goals will be unachievable by excluding the large segment of people
- Thus disability inclusion is accepted and recognized in post-2015 SDGs

Background (contd.)

- 15 percent of the worldwide total population have disability
- People with disabilities are one of the most vulnerable groups in:
  - ✓ natural disasters,
  - ✓ rising inequalities,
  - ✓ education, employment and poverty
- None of the development goals are irrelevant to disability
- Overlooking disability in implementing SDGs will pose a challenge

Challenges and remaining issues

- Association between disability and poverty (Filmer, 2008; World Health Organization, & World Bank, 2011).
- Nearly 80 percent of them live in developing countries (ILO, 2007).
- They make up of 15% - 20% of the poor in developing countries (Elwan, 1999).
- While there are multiple factors contributing, poor and unequal access to education or employment and the unequal distribution of other resources are likely to be among the major causes of their poverty.

Prevalence rate of disability and poverty

S. N.	Country	Classification of Economy	GNI per Capita (USD)	Prevalence of Disability* (%)	Unemployment Rate (%)	Average Schooling (years)	Poverty (% of Population below $1.25)
1	Nepal	LIC	490	21.4	2.7	4	55.1
2	Bangladesh	LIC	640	31.9	5	5.8	49.6
3	Kenya	LIC	780	15.2	N.A	7.3	19.7
4	Ethiopia	LIC	380	17.6	5.4	N.A	39
5	India	LMC	1,340	24.9	3.6	5.1	41.6
6	Sri Lanka	LMC	1,270	12.9	4.9	11.1	7
7	Pakistan	LMC	1,050	13.4	5	5.6	22.6
8	Ghana	LMC	1,240	12.8	3.6	7.1	30
9	Ecuador	LMC	4,510	13.6	6.5	8.1	5.1
10	South Africa	UMC	6,100	24.2	24.7	8.6	26.2
11	Malaysia	UMC	7,900	4.5	3.7	10.1	2
12	Brazil	UMC	9,390	18.9	8.3	7.5	3.8
13	Norway	OECD	85,380	4.3	3.6	12.3	N.A
14	Sweden	OECD	49,930	19.3	8.4	11.6	N.A
15	Finland	OECD	47,170	5.5	8.4	10	N.A

Source: World Health Organization, and World Bank. 2011. World Report on Disability. €i0Washington, D.C.: World Health Organization.

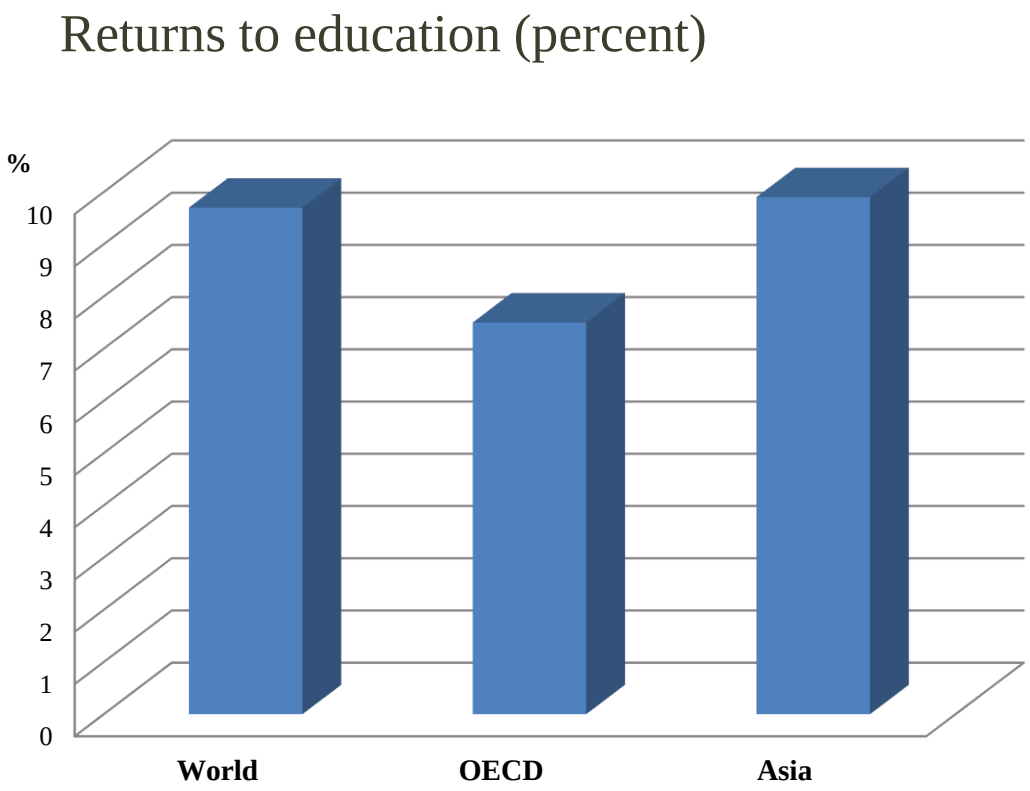
Disability and poverty in Nepal

Dependent variable: log (per capita household consumption)				
Variables	Persons with disabilities (Household heads)		Persons without disabilities (Household heads)	
	Coefficient	S.E.	Coefficient	S.E
Education				
0-5 years (referent)	-	-	-	-
6-10 years	0.46 ***	0.15	0.08 ***	0.02
11 years and above	0.29 *	0.14	0.28 ***	0.03
Land distribution				
Landless (0.00 ha) (base outcome)	-	-	-	-
Marginal (0.00ha – 0.15 ha)	0.07	0.19	-0.05 *	0.02
Small (0.15ha – 1.00 ha)	-0.02	0.16	-0.04 *	0.02
Medium (1.00ha – 4.00 ha)	0.46 **	0.2	0.17 ***	0.03
Large (4.00ha and above)	0.42 **	0.17	0.18 ***	0.03
Access				
Electricity	0.44 ***	0.1	0.38 ***	0.02

Note: * significant at 10%, ** significant at 5%, and *** significant at 1%. All specifications include household characteristics (household size, head female, rural household, age of head, head employed in agriculture), access (piped water, market center, hospital, road school), and ethnicity (high caste, mongoloids, newar, madhesh, lowcaste).

Source: Lamichhane (2015)

Global comparison of returns to education



Source: Psacharopoulos and Patrinos (2004)

Disability and returns to education (Nepal)

Estimation results of earnings regression (dependent variable: log hourly wage)
Source: Lamichhane and Sawada (2013)

	(1) OLS	(2) OLS	(3) Tobit	(4) Tobit	(5) IV-Tobit	(6) IV-Tobit
Years of schooling[a]	0.059	0.065	0.213	0.193	0.256	0.248
	(0.027)*	(0.030)*	(0.062)***	(0.067)**	(0.103)*	(0.091)**
Dummy = 1 if the follow up survey Information missing	−0.704	−0.493	−3.935	−3.166	−2.084	−2.079
	(1.419)	(1.385)	(4.067)	(4.004)	(2.297)	(2.233)
Severity of impairments	−0.226	−0.155	−0.538	−0.205	−0.017	−0.025
	(0.657)	(0.643)	(1.894)	(1.865)	(1.065)	(1.035)
School Leaving Certificate (SLC) score	0.011	0.008	0.019	−0.014	−0.01	−0.01
	(0.02)	(0.021)	(0.044)	(0.044)	(0.025)	(0.024)
Score of tests given during the survey	−0.389	−0.327	−0.941	−0.527	−0.543	−0.535
	(0.433)	(0.429)	(0.975)	(0.964)	(0.565)	(0.548)
Years of work experience	−0.014	−0.011	0.09	0.124	0.082	0.081
	(0.06)	(0.059)	(0.126)	(0.124)	(0.065)	(0.063)
Years of work experience squared	0.000	0.000	0.000	0.000	0.000	0.000
	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
Dummy = 1 if female	−0.374	−0.314	−0.471	−0.38	−0.198	−0.202
	(0.265)	(0.25)	(0.557)	(0.566)	(0.322)	(0.313)
Age	−0.021	−0.015	0.357	0.373	0.12	0.123
	(0.144)	(0.146)	(0.239)	(0.236)	(0.119)	(0.114)
Age squared	0.001	0.000	−0.005	−0.006	−0.002	−0.002
	(0.002)	(0.002)	(0.004)	(0.004)	(0.002)	(0.002)
Dummy = 1 if full-time worker	0.062	−0.026	7.645	7.488	4.42	4.442
	(0.273)	(0.275)	(0.587)***	(0.609)***	(0.407)***	(0.382)***
Dummy = 1 if hearing impaired		−0.086		−1.98	−0.993	−1.021
		(0.276)		(0.719)**	(0.513)	(0.480)*
Dummy = 1 if physically impaired		−0.479		−2.083	−1.763	−1.75
		(0.388)		(0.728)**	(0.441)***	(0.424)***
Constant	3.693	3.514	−11.678	−11.013	−4.877	−4.839
	(2.725)	(2.68)	(5.620)*	(5.540)*	(3.01)	(2.922)
R-Squared	0.073	0.086				
Number of observations	222	222	398	398	373	373

Women with disabilities and returns to education (Philippines)

Estimation Results of Earnings Regression with Continuous Education.
Dependent Variable: Log Income. Source: Lamichhane and Watanabe (2015)

to estimate the effect of double disadvantages (i.e., gender and disability)

Variable names	(1) OLS	(2) Tobit	(3) IV-OLS	(4) IV-Tobit
Years of schooling	0.249***	0.301***	0.337*	0.384*
	(0.0500)	(0.0630)	(0.178)	(0.211)
Age	0.297**	0.361**	0.228*	0.282*
	(0.116)	(0.144)	(0.132)	(0.162)
Age squared	-0.00346**	-0.00421**	-0.00262	-0.00326
	(0.00149)	(0.00184)	(0.00171)	(0.00208)
Dummy = 1 if physically impaired*female	-3.059***	-3.709***	-2.604***	-3.031***
	(0.914)	(1.151)	(0.925)	(1.128)
Dummy = 1 if hearing impaired*female	-2.113***	-2.415***	-2.778***	-3.214***
	(0.661)	(0.814)	(0.783)	(0.963)
Dummy = 1 if visually impaired*female	-0.446	-0.482	-1.125	-1.250
	(0.650)	(0.755)	(0.709)	(0.823)
Dummy = 1 if physically impaired*male	-1.795***	-2.042***	-2.188***	-2.462***
	(0.585)	(0.690)	(0.581)	(0.688)
Dummy = 1 if hearing impaired*male	-0.864	-0.911	-1.329**	-1.416*
	(0.668)	(0.797)	(0.650)	(0.769)
Dummy = 1 if Makati area	-2.111***	-2.477***	-2.293***	-2.616***
	(0.595)	(0.711)	(0.654)	(0.771)
Dummy = 1 if Quezon area	-1.294**	-1.451**	-1.643***	-1.841***
	(0.561)	(0.655)	(0.584)	(0.680)
Dummy = 1 if Valenzuela area	-1.794***	-2.055**	-2.025***	-2.293***
	(0.682)	(0.818)	(0.717)	(0.854)
Years of schooling (Mother)				
Years of schooling (Father)				
Constant	3.389	1.699	4.514*	3.163
	(2.227)	(2.806)	(2.352)	(2.938)
Observations	366	366	300	300

Women with disabilities and returns to education (Philippines)

Estimation Results of Earnings Regression with Discontinuous Educational Years
Dependent Variable: Log Income. Source: Lamichhane and Watanabe (2015)

Variable Names	(3) OLS	(4) Tobit
Age	0.315***	0.378***
	(0.116)	(0.142)
Age squared	-0.00369**	-0.00442**
	(0.00147)	(0.00180)
Not completed lower education (female)	-0.260	-0.0347
	(1.345)	(1.789)
Completed lower education (female)	2.393*	3.173*
	(1.304)	(1.699)
Not Completed higher education (female)	1.763	2.407
	(1.394)	(1.802)
Completed higher education (female)	3.559***	4.542***
	(1.231)	(1.615)
No grade completed (male)	0.651	1.200
	(1.639)	(2.088)
Not completed lower education (male)	2.082*	2.835*
	(1.238)	(1.637)
Completed lower education (male)	1.872	2.543
	(1.257)	(1.648)
Not Completed higher education (male)	2.945**	3.772**
	(1.210)	(1.600)
Completed higher education (male)	4.546***	5.532***
	(1.160)	(1.559)
Dummy = 1 if physically impaired	-1.807***	-2.102***
	(0.525)	(0.623)
Dummy = 1 if hearing impaired	-1.139**	-1.273*
	(0.559)	(0.663)
Dummy = 1 if Makati area	-2.040***	-2.361***
	(0.572)	(0.676)
Dummy = 1 if Quezon area	-1.331**	-1.463**
	(0.547)	(0.634)
Dummy = 1 if Valenzuela area	-2.029***	-2.359***
	(0.663)	(0.789)
Constant	0.894	1.087
	(3.137)	(3.108)
Observations	365	365

The returns to education do not necessarily increase in a continuous

females are only positive and statistically significant at least when their educational attainment is either a lower or higher diploma

the coefficients on levels of educations for males are always positive and statistically significant even if they drop out before obtaining a diploma

Disability and labor market participation (Bangladesh)

Type of Disabilities and employment

	(1) Base outcome: Not working	(2) Base outcome: Day labour	
Variable	Working	Self-employed	Employee
Visual impairment	-0.004	0.041***	-0.009
	(0.007)	(0.015)	(0.012)
Hearing impairment	-0.038**	-0.058*	-0.009
	(0.017)	(0.034)	(0.028)
Physical impairment	-0.046**	-0.001	-0.025
	(0.021)	(0.037)	(0.031)
Cognitive impairment	-0.206***	0.138	-0.076
	(0.051)	(0.096)	(0.070)
Difficulty in self-care	-0.098*	0.224	-0.116
	(0.055)	(0.143)	(0.095)
Difficulty in communication	-0.189***	-0.05	0.100
	(0.056)	(0.139)	(0.137)
Dual impairment	-0.079***	-0.038	-0.037
	(0.018)	(0.030)	(0.024)
Multiple impairment	-0.232***	-0.07	-0.007
	(0.032)	(0.049)	(0.040)
Number of observations	29622	15331	15331

Source: Lamichhnane (2015)

Disability and labor market participation (Bangladesh)

Severity of Disabilities and employment

	(1)	(2)	
	Base outcome: not working	Base outcome: day labour	
Variable	Working	Self-employed	Employee
Dummy = 1 if female	-0.744***	-0.094***	0.107***
	(0.013)	(0.024)	(0.021)
Age	0.002***	0.006***	-0.001
	(0.001)	(0.001)	(0.001)
Married	-0.042**	0.212***	-0.146***
	(0.021)	(0.041)	(0.041)
Years of schooling	0.006***	0.000	0.027***
	(0.002)	(0.003)	(0.002)
Severity of impairment	-0.126***	-0.109***	0.087**
	(0.022)	(0.042)	(0.039)
Log monthly expenditure	-0.009	0.190***	0.038**
	(0.013)	(0.025)	(0.019)
Dummy = 1 if remittance	-0.052***	0.075**	-0.027
	(0.014)	(0.029)	(0.022)
Dependency ratio	0.120***	0.224***	-0.123***
	(0.032)	(0.059)	(0.046)
Number of observations	2957	1829	1829

Source: Lamichhnane (2015)

Disability and labor market participation (other countries)

- Empirical researches from Nepal, Bangladesh, Cambodia and the Philippines suggest that:
  - ✓ longer years of education significantly increase the opportunity for people with disabilities first to get a job and second to engage in full time and white collar jobs.
  - ✓ These jobs are important for better payment and income stability.
  - ✓ Help mitigate poverty of persons with disabilities.
  - ✓ Help enjoy social inclusion and economic independence.

Source: Lamichhnane (2015)

Disability as a subject of investment

- Human beings are bestowed with strengths and the communities we make up are the sum of all our individual strengths.
- However, when one individual lacks strength in an aspect that another takes for granted, we tend to forget that each of us is blessed with different and sometimes, complementary strengths.
- The involved parties should recognize and efficiently utilize each others' strengths for a mutually beneficial situation.
- This concept can be related to the economic theory of comparative advantage (Ricardo 1817).

Disability as a subject of investment (contd.)

- To improve the well-being of people with disabilities and to recognize their strengths and potentials, disability has to be addressed with an investment approach.
- They are not lacking in abilities; rather, they have varying and different potentials, which can be maximized, harnessed or developed through proper education and training.
- The traditional charitable approach in essence assumes disability as a passive recipients of pity and sympathetic help.

Disability as a subject of investment (contd.)

- The word ‘charity’, derived from the Latin word caritas, has been widely used to mean the duty of helping others who are generally regarded as weaker, or more needy, or having lower status than those who offer help.

- This notion is reflected in most of the world’s religions including Hinduism, Buddhism, Christianity and Islam.

- The notion of charity generally does not recognize the recipient as equal to those who offer support

Disability as a subject of investment (contd.)

- Here, I emphasize ‘investment’ as an allocation of budgets and resources by states and societies into areas of human capital formation such as education, health and employment, and for social capital such as accessible roads and transport, so as to facilitate the participation of people with disabilities in economic, social and political spheres.
- While the concept of investment exists traditionally in the fields of finance and economics, I call for socially responsible investment that seeks to promote the rights of people with disabilities.
- The persistent approach towards disability as a form of charity may perpetuate a lack of investment, and a lack of inclusion will reinforce inequality in society.

Concluding remarks

- Persons with disabilities are poorer and face more inequality than their counter parts.
- Their systematic exclusion in development programs cumulatively poses us a vulnerability.
- When marginalized people are not brought to the mainstream of development, it is hard to imagine the society for all based on equity and inclusion.
- In the process of implementing SDGs, people with disabilities should be included in all level

Shifting the paradigm from

- Exclusion to inclusion
- Discrimination to acceptance
- Sympathy to rights
- Charity to investment