## Can Bangladesh do without Foreign Aid?



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## 1. Background

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- Bangladesh is passing through the period of double graduation. In 2015, the country has achieved the status of Lower Middle Income Economy (LMIE) by increasing its per capita income. In March 2018, it has entered into the process of graduating from a Least Developed Country (LDC) to a developing country by 2024 (UNCTAD, 2017) by fulfilling all three criteria to be eligible for graduation per capita income, human assets, and economic vulnerability.
- However, Bangladesh needs to deal with several challenges as it moves forward to make its growth sustainable. One such challenge will be mobilisation of finance for development (FfD) from external sources.
- Once graduated, terms of official development assistance (ODA) (foreign aid) will change and external resources will be costly as the grant element mat not be widely available. This may potentially put pressure on debt servicing.
- Though the share of ODA, as percentage of GDP has declined to 1.47 percent in FY2016-17, compared to 3.07 percent in FY1996-97, the need for ODA in development activities of Bangladesh is still significant.
- The need for ODA will be felt more as the government of Bangladesh (GoB) is committed to implement the Sustainable Development Goals(SDGs).
- Thus, raising the efficacy of aid utilization will become more important in the coming days.



## 1. Background

- While there is a higher demand for more resources from the international sources, a paradoxical situation is observed. A large amount of foreign aid remains in the pipeline indicating that new funds do not necessarily guarantee their timely and full utilisation. This has implications for development initiatives.
- The challenges related to foreign aid regime in Bangladesh are twofold: (i) efficient disbursement, and (ii) efficient utilisation.
- This emphasizes the need for improving the governance of aid utilisation.



## 2. Objectives of the Study

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Evaluate the effectiveness of ODA

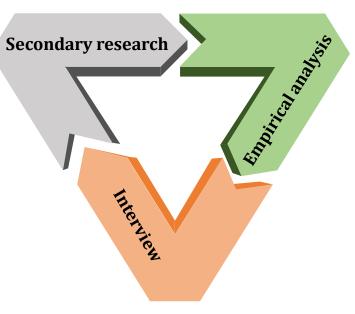
Assess the contribution of foreign aid at macro and micro levels



## 3. Methodology of the Study

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Survey of literature to draw narratives on foreign aid effectiveness



Empirical analysis to understand the effectiveness of foreign aid at macro and micro levels



Interview of knowledgeable informants to solicit their views on how aid utilisation can be made effective

### 4. Overview of Aid Dynamics in Bangladesh: Recent Trends

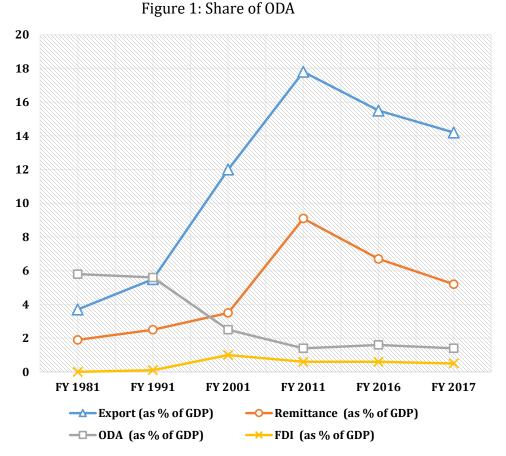
#### 4. Overview of aid dynamics in Bangladesh: Historical trend of aid

Percentage, %

## Share of ODA in the economy is declining

- Though the volume of ODA is increasing, ODA as a share of GDP has been declining steadily
- This indicates that the country's dependence on ODA has also declined
- In contrast, exports and remittances (as % of GDP) have increased significantly since the

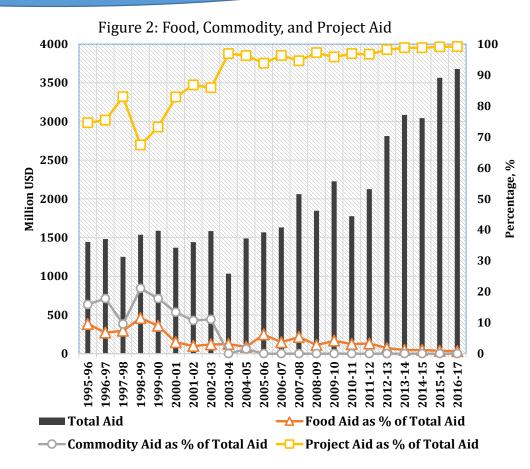




#### 4. Overview of aid dynamics in Bangladesh: Composition

## Project aid comprises of 100% of total aid.

- Project aid as a share of total aid has been increasing since FY99
- Commodity aid as a share of total aid has been close to zero since FY04
- Food aid as a share of total aid has been decreasing since FY06





#### 4. Overview of aid dynamics in Bangladesh: Bilateral and multilateral aid

## Gap between bilateral and multilateral aid

- Bilateral aid as a share of total aid has been decreasing since FY04
- Multilateral aid as a share of total aid has been increasing since FY04
- Gap between the two closed down in FY14, but has been increasing since then

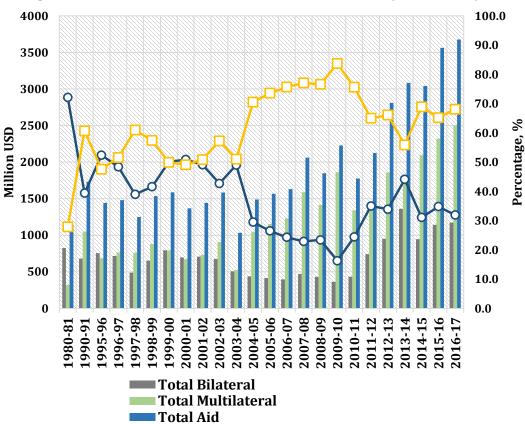


Figure 3: Bilateral and Multilateral Aid Disbursement (USD Million)

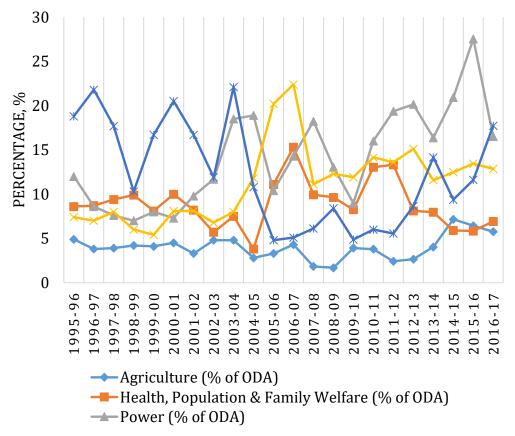


## 4. Overview of aid dynamics in Bangladesh: Aid disbursement in selected sectors

#### Aid disbursement in infrastructure overtakes that of social sectors

- Aid disbursement in power sector rose sharply since FY10
- Aid disbursement in transport sector exceeded that of education in FY17
- Aid disbursement in agriculture has been hovering at around 5%

Figure 4: Aid Disbursement in selected Sectors (% of Total ODA)





## 4. Overview of aid dynamics in Bangladesh: Utilisation of project aid and Taka Allocation

#### Gap in utilisation between Taka allocation and project aid allocation in ADP

- Utilisation of Taka allocation of ADP shows increasing trend since FY08
- Utilisation of project aid allocation has been below 80% from FY06 onwards

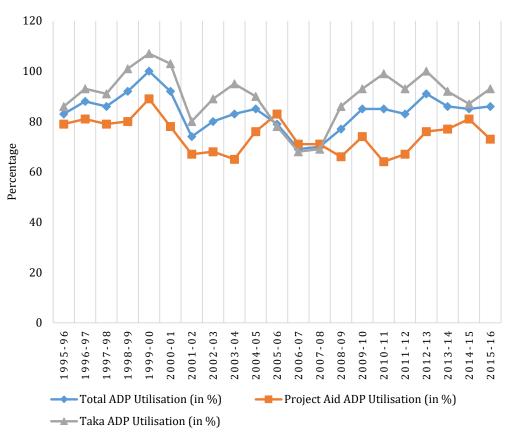


Figure 5: ADP Utilisation (in %)



# 5. Evaluation of Effectiveness of Foreign Aid

### **5. Evaluation of effectiveness of ODA: Methodology**

#### Assessing aid effectiveness by looking at:

- ODA funds trajectory additionality, predictability, grants vs loans
- Ownership relevance to domestic policies, national level coordination, sustainability
- Alignment with partners' development strategies, use of country system, untied aid, demand-supply gap
- Donor coordination
- Absorptive capacity
- *Macro level contribution:* economic growth
- *Micro level contribution:* ODA funds for the health sector



#### **5. Evaluation of effectiveness of ODA: ODA Fund Trajectory**

#### **ODA Fund Trajectory**

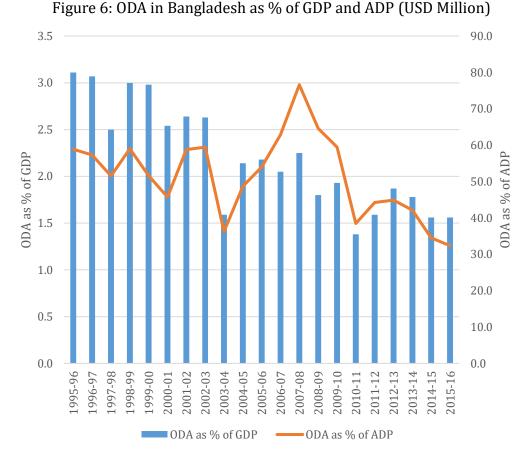
- Additionality: Whether volume and growth of ODA are increasing or not
- *Predictability:* Commitment vs. disbursement of ODA
- *Grants vs. loans*: Changes in composition of grant and loan components over time



### **5.1 Additionality of aid**

#### Aid shows declining trends with respect to GDP and ADP

- ODA as a share of ADP has been decreasing since FY08
- ODA as a share of GDP has been generally decreasing since FY96



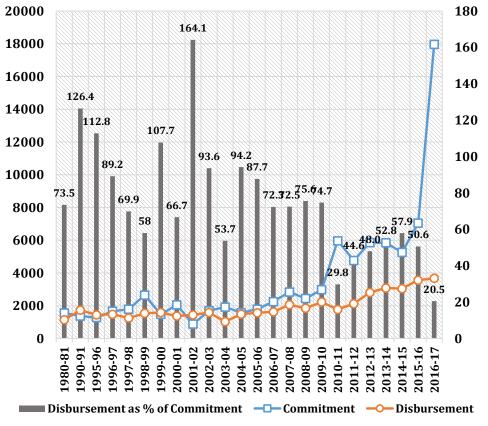


### **5.2 Predictability: Commitment and disbursement**

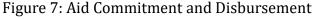
Million USD

#### Commitmentdisbursement gap increasing

- Commitment spiked in FY11 and increased drastically in FY17
- Disbursements have been increasing steadily since FY11
- Unusually large difference between commitment and disbursement in FY17, due to high commitment and low disbursement



Source: Economic Relations Division (ERD), Ministry of Finance, Government of Bangladesh.



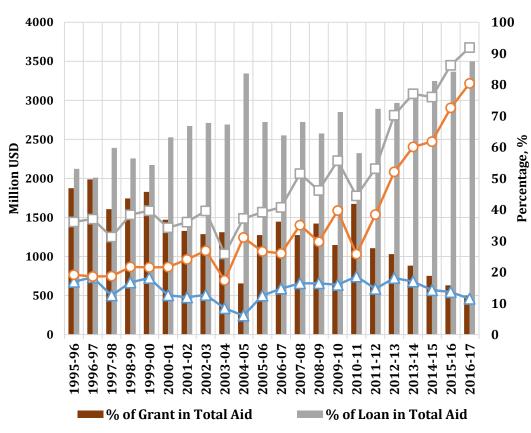
Percentage, %

## **5.3 Grants vs loans: Changes in composition of grant and loan components over time**

## Loans increasing amidst dwindling grants

- In FY97, loans and grants were almost equally divided as shares of total aid
- Since then, grants as a share of total aid have been declining, while loans as a share of total aid have been rising
- In FY17, loans were 87.5% of total aid, whereas grants were only 12.5%

Figure 8: Grants and Loans Disbursement (USD Million)

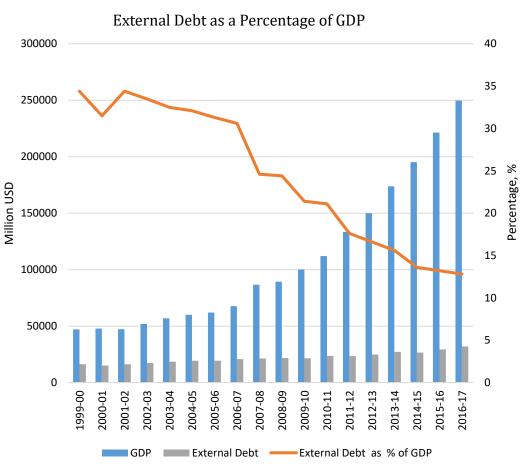




### **5.4 External Debt to GDP ratio**

# External Debt as a percentage of GDP is declining

- External debt as a percentage of GDP has been declining from FY01 to FY17, with the exception of FY02
- It reached its lowest point in FY17 (12.8%)



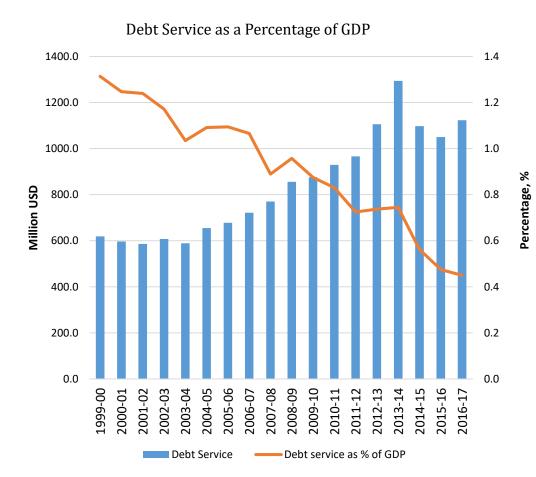
Source: Economic Relations Division (ERD), Ministry of Finance, Government of Bangladesh. Note: (i) The base year for 2000-2012 is 1995-96; (ii) The base year for 2012-2017 is 2005-06.



## **5.4 Debt Servicing to GDP ratio**

#### Debt servicing as a percentage of GDP is declining

 Debt-servicing as a percentage of GDP has also been declining consistently since FY00, reaching its lowest in FY17





# **5.5 Summary: Evaluation of ODA in Bangladesh**

ODA exhibits	Based on data and documents	Stakeholders' view
Additionality	Mixed	Mixed
Predictability	Mixed	Mixed. Change in the priority of donor countries and delayed implementation of projects are factors behind unpredictability
Grants vs. Loans	Share of grant in ODA is declining fast and the major part of aid comes as loans	Infrastructure projects should be in grant form

Source: Authors' elaboration



## **5.5 Summary: Evaluation of ODA in Bangladesh** (contd.)

Indicator	ODA exhibits	Based on data and documents	Stakeholders' view
Ownership	Relevance to domestic policies	Major ODA funded projects meet many national objectives	ODA funded projects have relevance to Bangladesh as it aims to achieve economic and social progress
	National level coordination and stakeholder involvement	There is an institutional mechanism for ODA project coordination	However, national level coordination of projects is weak. The scope for involvement of broader stakeholders besides the government and donors is limited
	Sustainability	GoB has exhibited the capacity to shoulder a large share of the cost of donor supported investment projects	Partial



## **5.5 Summary: Evaluation of ODA in Bangladesh** (contd.)

Indicator	ODA exhibits	Based on data and documents	Stakeholders' view
Alignment	Alignment with partners' development strategies	In the case of ODA, 100 percent of aid flows to Bangladesh were aligned with national priorities by 2010	The flow of ODA in Bangladesh is aligned with national priorities,
	Use of country system	Some improvement	GoB officials believe that the capacity building support by donors is now better coordinated and consistent with national and sectoral priorities
	Untied aid	Some improvement in terms of aid being untied (in cases of traditional sources)	Donors continue to impose too many conditions
	Demand-supply gap	Resource gap for health, education, gender empowerment, climate change and infrastructure are huge compared to the flow of aid	ODA projects should be more demand driven There is also need for more donor support for improving physical infrastructure



## **5.5 Summary: Evaluation of ODA in Bangladesh** (contd.)

Indicators	ODA exhibits	Based on data and documents	Stakeholders' view
Donor coordination	Donor coordination	Coordination among donors has improved through local consultative groups and joint cooperation strategy	Some improvement in the area of donor coordination. Donors also prefer to coordinate various activities among themselves, but sometimes bypassing the government
Absorptive capacity	Absorptive capacity	Low absorption capacity due to lower implementation of foreign aid funded development projects	Lack of efficient administrative mechanism, low human capacity, political instability and stringent donor requirements are major reasons for low absorption capacity

Source: Authors



### 6. Macro Level Analysis: Contribution of ODA to Growth

## 6.1 Variables

Variable	Definition
GDP per capita	Annual percentage growth rate of GDP per capita based constant 2010 U.S. dollars.
Investment	Annual growth rate of gross capital formation based on constant 2010 U.S. dollars.
Labour	Growth rate of labour force (people ages 15 and older who supply labour for the
	production of goods and services during a specified period)
Aid	Net official development assistance received as a percentage of Gross National Income
Aid squared	Squared aid term
Broad money supply	Broad money supply as a percentage of GDP
Policy index	Policy index (composed of inflation, govcons, and trade)
Institutional quality	Institutional quality index (composed on coc, ge, ps, rq, va, and rol)
index	
Inflation	Logarithm of inflation rate plus one
Government	Government consumption relative to GDP
consumption	
Trade	Exports plus imports relative to GDP
<b>Control over corruption</b>	Control over corruption index
Government	Government effectiveness index
effectiveness	
Political stability	Political stability index
<b>Regulatory quality</b>	Regulatory quality index
Voice and accountability	Voice and accountability index
Rule of law	Rule of law index



Author's compilation based on data from World Development Indicators and Worldwide Governance Indicators

## **6.2 Index constructions**

#### **Policy index**

#### Step 1:

• Regress GDP per capita on inflation, government consumption, and trade

Step 2:

 Use the estimated coefficients as weights to make a composite policy index

#### Institutional quality index

Step 1:

 Regress GDP per capita on control over corruption, government effectiveness, political stability, regulatory quality, voice and accountability, and rule of law

Step 2:

• Use the estimated coefficients as weights to make a composite institutional quality index



## **6.3 Results from Granger causality test**

#### Aid does not Granger cause growth

- the probability of the null hypothesis that 'aid does not Granger cause GDP per capita' being true is 0.5875 for the log-linear model and 0.5699 for the log-log model
- we cannot reject the null hypothesis that 'aid does not Granger cause GDP per capita'

Model	Log-Linear <sup>(i)</sup>	Log-Log <sup>(ii)</sup>
Null Hypothesis	F Statistic	F Statistic
	(Probability)	(Probability)
Aid does not Granger Cause GDP per	0.55255	0.58541
capita	(0.5875)	(0.5699)
Aid squared does not Granger Cause	0.50202	0.58541
GDP per capita	(0.6158)	(0.5699)

Author's calculations

Source:

Note:

(i) GDP per capita is in natural logarithm, all other variables are in level; (ii) all variables are in natural logarithm; (iii) optimal lag length selection is based on the Schwarz Information Criterion (SIC); (iv) probability values in parentheses.



## 6.4 Results of model estimation

#### Aid is not a significant determinant of economic growth for Bangladesh

- the coefficients for aid and aid squared are both statistically insignificant
- the coefficients for labour supply, broad money supply, and the policy index are positive and statistically significant
- the goodness of fit for the loglinear model is higher compared to the log-log model

Model	Log-Linear <sup>(i)</sup>	Log-Log <sup>(ii)</sup>
Variable	GDP per capita	GDP per capita
Aid	1.036575	-42221.94
	(1.000280)	(44902.14)
Aid squared	-0.372411	21110.94
	(0.338919)	(22451.14)
Investment	0.003814	0.044675
	(0.011563)	(0.203643)
Labour	0.270173**	0.847644**
	(0.086084)	(0.278772)
Broad money supply	0.026765**	1.309213***
	(0.007597)	(0.230249)
Institutional quality	0.038833	0.476411
index	(0.044616)	(0.406648)
Policy index	0.307189*	0.403272*
-	(0.110836)	(0.202937)
Constant	3.403410**	-
	(0.963096)	
R squared	0.982052	0.886795
Adjusted R squared	0.932697	0.773591



Source: Note: Author's calculations

(i) Dependent variable is in natural logarithm, all other variables are in level and level trend specification assumed; (ii) all variables are in natural logarithm and no trend specification assumed; (iii) aid and aid squared are cointegrating regressors; (iv) automatic lead and lag specification based on Akaike information criterion, Schwarz information criterion, and Hannan–Quinn information criterion; (v) standard errors in parentheses; (vi) \*, \*\*and \*\*\* denote statistical significance at 1%, 5% and 10% levels respectively.

### 7. Micro Level Analysis: Contribution of ODA to Health Outcome

# 7.1 Sectoral aid as a share of sectoral expenditure

	Education project aid as share of total education	Health project aid as share of total health expenditure
FY	expenditure (in %)	(in %)
2005-06	24.1	41.8
2006-07	25.1	43.2
2007-08	13.7	31.9
2008-09	24.3	37.3
2009-10	11.1	19.7
2010-11	9.3	22.1
2011-12	11.6	29.0
2012-13	15.7	21.0
2013-14	10.3	20.6
2014-15	9.6	13.2
2015-16	9.3	12.8
2016-17	7.6	30.2



### 7.2 Variables

Variable	Definition
<b>Infant Mortality Rate</b>	Infant Mortality Rate (IMR) The number of deaths occurring during a given year among
	the live-born infants who have not reached their first birthday, divided by the number of
	live births in the given year and usually expressed per 1000 live births.
<b>Under-Five Mortality</b>	Under-Five Mortality Rate (U5MR) The under-five mortality rate is defined as the number
Rate	of deaths to children under five year of age per 1000 live births in a given year.
Child Death Rate	Child Death Rate (ChDR) Child death rates is defined as the number of deaths among
	children in age 1-4 per 1000 mid-year population in the same age group.
<b>Project Aid in Health</b>	Disbursement of project aid in health sector (million USD)
Sector	
Per Capita Health Aid	Current external expenditures on health per capita expressed in international dollars at
	purchasing power parity (PPP).
Per Capita Government	Public expenditure on health from domestic sources per capita expressed in international
Health Expenditure	dollars at purchasing power parity (PPP).
Per Capita Private	Current private expenditures on health per capita expressed in international dollars at
Health Expenditure	purchasing power parity (PPP).
Per Capita Out-of-pocket	Health expenditure through out-of-pocket payments per capita in international dollars at
Health Expenditure	purchasing power parity (PPP).

Source: Author's compilation based on data from World Bank's Health Nutrition and Population Statistics database and Sample Vital Registration Statistics of Bangladesh Bureau of Statistics (BBS).



## 7.3 Results of model estimation

#### Health aid is a significant determinant of health outcomes for Bangladesh.

- the coefficients for project aid in health sector and per capita aid in health sector are both negative and statistically significant
- this implies that aid in the health sector has a significant impact in reducing infant mortality rate, under five mortality rate and child death rate

Model	Log-Log <sup>(i)</sup>	Log-Log <sup>(i)</sup>	Log-Log <sup>(i)</sup>
Variable	Infant Mortality	Under-Five	Child Death Rate
	Rate	<b>Mortality Rate</b>	
Project Aid in Health	-0.080906**	-0.127899**	-0.132605**
Sector	(0.005299)	(0.010459)	(0.039631)
Per Capita Health Aid	-0.288816**	-0.263639*	-0.112739
	(0.019316)	(0.038121)	(0.085884)
Per Capita Government	-0.134111*	-0.377323**	0.060295
Health Expenditure	(0.012634)	(0.024935)	(0.084468)
Per Capita Private Health	1.521650	-7.105054*	6.870401
Expenditure	(0.374045)	(0.738202)	(3.457137)
Per Capita Out-of-pocket	-1.601359	6.911961	-9.230460*
Health Expenditure	(0.393535)	(0.776667)	(3.523743)
Constant	2.250152***	3.059968***	1.630999
	(0.011464)	(0.022625)	(0.145183)
Trend			0.129262**
			(0.027176)
Trend squared			-0.001063**
			(0.000309)
R squared	0.999983	0.999957	0.997511
Adjusted R squared	0.999796	0.999489	0.993032



Author's calculations

<sup>(</sup>i) All variables are in natural logarithm; (ii) project aid in health sector and per capita health aid are cointegrating regressors; (iii) automatic lead and lag specification based on Akaike information criterion, Schwarz information criterion, and Hannan–Quinn information criterion; (iv) standard errors in parentheses; (v) \*, \*\*and \*\*\* denote statistical significance at 1%, 5% and 10% levels respectively.

### 8. Summary of findings: Macro and Micro Level Analyses

#### 8. Summary of findings: Macro and Micro Level Impact

Impact	Based on data	Stakeholders' view
Macro level	No significant impact on economic growth	Impact of ODA on the growth is minimal because Bangladesh's dependency on ODA has declined
Micro level	Health sector projects have benefitted from ODA support	ODA in strategic areas is critical

Source: Authors



### 9. Challenges of Aid Utilisation in Bangladesh

#### 9. Challenges of Aid Utilisation in Bangladesh

- During the period of the Millennium Development Goals (MDGs), the GoB managed to receive external support to implement the MDGs successfully. For example, compared to 2000, the flow of external resources increased by 1.9 times in 2015 (MoF, 2017a).
- However, aid is still not fully utilised in Bangladesh. According to the Aid Management Unit (AMU) under the ERD, aid effectiveness in Bangladesh is performing less than its potential due to a number of interlinked and interdependent structural, procedural and capacity problems (ERD, 2011).
- Major reasons for low ADP implementation include institutional weakness, delayed implementation, and cost overrun (CPD, 2010; 2018b).



#### 9. Challenges of Aid Utilisation in Bangladesh (contd.)

- Procedural lapses of a project, incomplete proposal, illogical expenditure target, and inadequate feasibility study hinder implementation of ADP.
- Due to procedural delays in land acquisition and procurement after approval, often projects cannot takeoff in a timely manner. By the time the project activity start, spending the total allocation for the fiscal year becomes difficult.
- In terms of ADP implementation, the following obstacles were identified: (i) recruitment of project director and acquisition of land; (ii); recruitment of consultant/firm; (iii) preparation of work plan; (iv) recruitment of human resources (IMED, 2017).



### **10. Recommendations**

## **10. Recommendations**

#### Improvements are needed in a number of areas:

- Project design, implementation and management
- Bureaucracy among donors and GoB
- Conditionalities
- Alignment
- Capacity development
- Country systems
- Monitoring and evaluation
- Transparency and accountability



