



# Indonesia: Impact of Adolescent Nutrition Support on Development Outcomes

Project Name	Impact of Adolescent Nutrition Support on Development Outcomes	
Project Number	51354-001	
Country / Economy	Indonesia	
Project Status	Active	
Project Type / Modality of Assistance	Technical Assistance	
Source of Funding / Amount	TA 9558-INO: Impact of Adolescent Nutrition Support on Development Outcomes	
	Japan Fund for Prosperous and Resilient Asia and the Pacific	US\$ 2.00 million
Strategic Agendas	Inclusive economic growth	
Drivers of Change	Gender Equity and Mainstreaming Knowledge solutions Partnerships	
Sector / Subsector	Health / Nutrition	
Gender	Some gender elements	
Description	<p>Stunting and other forms of malnutrition persist in Indonesia and can have significant negative impacts on the cognitive and non-cognitive development outcomes of children and adolescents. The proposed knowledge and support technical assistance (TA) will support the Government of Indonesia's development of nutrition-enhancing programs and policies targeting adolescents, by (i) assessing the current nutritional status of adolescents to identify and prioritize nutritional challenges; (ii) addressing the burden of malnutrition from a life cycle perspective by implementing preconception nutrition care, school-based nutrition interventions, and nutrition support to disadvantaged adolescents; and (iii) deriving rigorous, policy-relevant evidence on the development impacts of such interventions in terms of health and education outcomes through randomized controlled trials.</p> <p>The TA is aligned with the Asian Development Bank (ADB) country partnership strategy for Indonesia, 2016-2019 and the government's National Long-term Development Plan (2005-2025), which emphasize enhanced human resource development through better health and smarter education and skills development. High-quality evidence on the impact of nutrition intervention on development produced by the TA will assist evidence-based policy making in the health and education sectors.</p>	

**Project Rationale and Linkage to Country/Regional Strategy**

Double burden of malnutrition among Indonesian youth. Young people in Indonesia are increasingly experiencing a double burden of malnutrition (DBM)—the coexistence of under- and over-nutrition in the same population and individuals. The youth population, aged 10 to 24 years old, numbers 65 million (28%) of the Indonesian population, including 48 million adolescents aged 10 to 19 years. They form the foundation of the country's long-term economic development, but a DBM may hamper their development potential.

Dietary risks and malnutrition have been identified as two of the top five risk factors in Indonesia driving death and disability combined. Women and children have a higher risk of all forms of malnutrition. Among Indonesian women, 14% have chronic energy deficiency as measured by mid-upper arm circumference. Among children under 5 years of age, stunting affects 9.5 million children (36%), and wasting 3 million children (14%). Micronutrients are critical for the development of immune system and cognitive functions. Despite policies of universal iron, iodine, and more recently vitamin A fortification of staple foods, micronutrient deficiencies remain common in Indonesia. Stunted children are more likely to become obese later in life if they do not adopt a healthy, active lifestyle. Overweight and obesity have doubled in the Indonesian population in the past 15 years: (i) among children under 5, 14% are overweight (gemuk), compared with the global average of 6%; (ii) 29% of adult women and 8% of adult men are obese; and (iii) 19% of the population aged 15 or above had excessive abdominal fat as measured by waist circumference, which is a strong risk factor for coronary heart diseases. Although kegemukan (overweight) increases with income, the prevalence among the poorest men (nearly 10%) and women (almost 20%) does not differ significantly from the three higher wealth quintiles. Impact of malnutrition. Malnutrition undermines development potential and compromises long-term economic outcomes. Iron-deficiency anemia in school-age children causes a loss of an estimated six intelligence quotient points per child. Non-stunted children complete more years of schooling and earn about 20% higher salaries later in life. Based on conservative assumptions related only to lost productivity, the costs of child under-nutrition in Asia are estimated to equal at least 2% of gross domestic product; if over-nutrition is included, estimated lost productivity could rise to 11% of annual gross domestic product. Hunger severely reduces the energy level and attention span of children, while iodine deficiency has significant irreversible effects on brain development. Overweight and obesity are associated with behavioral problems in school, and psychosocial stress including stigmatization, poor self-image, and discrimination.

Long-term view. A life-cycle, inter-generational perspective is strategically important when considering malnutrition problems. Malnutrition starts before conception, continues throughout childhood (including adolescence), and extends into adulthood. Good nutrition is essential for children's physical and cognitive development. Stunting, for example, is largely determined by poor maternal nutrition and insufficient nutrition intake in the first 1,000 days of life. Malnutrition in women of reproductive age significantly increases the risks of complications in pregnancy and adverse pregnancy outcomes for newborns (including stillbirths and preterm births), and for mothers (including hypertensive disorders of pregnancy, gestational diabetes mellitus, and maternal mortality). Malnourished mothers have less means, awareness, and knowledge about proper nutrition for their children, contributing to poor feeding practice and child malnutrition. Poor diet habits are likely to continue into adulthood. When stunted children experience rapid weight increase later in life, they have an increased risk of becoming overweight or obese, and are thus at higher risk of degenerative diseases such as diabetes, hypertension, coronary heart disease, and stroke.

Addressing the double burden of malnutrition. Adolescence is a period of rapid physical and psychosocial development—adolescents experience growth spurts, and puberty requires increased nutrition intake, particularly among adolescent girls, who are also preparing for their reproductive roles. Improving nutrition during adolescence may help those with a challenging childhood to catch up in terms of physical growth and cognitive development. Adolescence is also a critical stage when knowledge and attitudes about nutrition are formed, when behavior changes may have a positive, long-lasting impact. In particular, if adolescent girls and young women have improved nutrition knowledge and adopt healthy diets and behaviors, they are more likely to have healthy pregnancies and raise healthy children, contributing to a virtuous cycle of nutrition improvement. Investment in young people and adolescents is likely to have immediate health benefits, and help prevent adult malnutrition, long-term noncommunicable diseases, and malnutrition in the next generation.

The Ministry of Social Affairs provides capacity building for disadvantaged children through its social workers. The main instrument to assist street adolescents is conditional cash transfers. The ministry considers its capacity building and conditional cash transfer programs to be insufficient to bring street adolescents back to their homes and schools. Some nongovernment organizations have provided street adolescents with free schooling in an effort to benefit their long-term human capital development. Adequate nutrition is vital to achievement of maximum development outcomes in both street adolescents and those enrolled in schools.

The government views nutrition as a development priority. In 2017, under the leadership of the cabinet-level Multi-Sector Committee on Stunting Reduction, the government launched a Presidential National Action Plan aiming to address the high stunting levels. Existing efforts to tackle the DBM focus on pregnancy and early childhood in the context of maternal and child health, and interventions at adolescence and preconception stages are considered new and relevant. School-based nutrition interventions may be the most cost-effective approach to improving both the health and academic performance of those in school. Community engagement during marriage registration appears to be a promising channel to support young women at the preconception stage.

**Impact** Quality and competitiveness of human resource enhanced in Indonesia.

**Project Outcome**

**Description of Outcome** Knowledge base of adolescent nutritional status and nutritional impact on education outcomes enhanced.

**Progress Toward Outcome**

**Implementation Progress**

**Description of Project Outputs** Assessment of the double burden of malnutrition among adolescents undertaken nationally and in selected cities.  
Pilot testing of a set of identified nutrition interventions in appropriate settings carried out.  
Impact evaluation of pilot nutrition interventions undertaken and findings disseminated.  
Capacity for conducting analysis and methodology of health researchers in universities strengthened

**Status of Implementation Progress (Outputs, Activities, and Issues)**

**Geographical Location** Nation-wide, Jakarta, Yogyakarta

**Summary of Environmental and Social Aspects**

**Environmental Aspects**

**Involuntary Resettlement**

**Indigenous Peoples**

**Stakeholder Communication, Participation, and Consultation**

**During Project Design**

**During Project Implementation**

**Responsible ADB Officer** Yamano, Takashi

**Responsible ADB Department** Economic Research and Development Impact Department

**Responsible ADB Division** Economic Analysis and Operational Support Division (EREA)

**Executing Agencies** Ministry of Health

**Timetable**

**Concept Clearance** 13 Feb 2018

**Fact Finding** 03 Dec 2017 to 11 Dec 2017

**MRM** -

Approval	06 Aug 2018
Last Review Mission	-
Last PDS Update	09 Aug 2018

## TA 9558-INO

Milestones					
Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
06 Aug 2018	20 May 2019	20 May 2019	30 Jun 2021	30 Jun 2023	-

Financing Plan/TA Utilization							Cumulative Disbursements	
ADB	Cofinancing	Counterpart				Total	Date	Amount
		Gov	Beneficiaries	Project Sponsor	Others			
0.00	2,000,000.00	0.00	0.00	0.00	0.00	2,000,000.00	24 Mar 2023	1,300,226.81

Project Page	<a href="https://www.adb.org/projects/51354-001/main">https://www.adb.org/projects/51354-001/main</a>
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