Children as a Basis for Sustainable Development

By the Thematic Group on Early Childhood Development, Education, and Transition to Work

Children are the basis for all dimensions of sustainable development. They have a right to thrive, develop to their full potential, and live in a sustainable world. As such, children should be at the center of the post-2015 Sustainable Development Goals. Many argue that sustainable development challenges are integrated. Poverty reduction, health, education, agriculture and energy, gender equality and social inclusion, and development within planetary boundaries must be tackled together, and an inter-generational vision of societal development must underlie the goals in these areas. Without this vision, there will be no capacity for nations to bring about sustainable development

Linking Early Childhood Development and Sustainable Development

Health, learning and behavior during children's early years are foundational not only for school success, but also for their capacity to contribute meaningfully to society. Children's growth and development is profoundly shaped by the educational, social, and economic opportunities afforded them by adults in a range of contexts.

Decades of evidence has shown that early childhood is a critical stage of human development, laying down the foundations of brain architecture and functioning. Early experiences in the home and in communities interact with genes to shape the nature and quality of the brain, supporting the development of a range of early skills, including cognitive, social, self-regulation, and executive function skills.2 Each of these skills is predictive of school success, higher earnings, participation in communities, and reduced odds of delinquency, crime, and chronic communicable disease.3 Later skills build cumulatively upon these early skills, resulting in higher returns on investment in early development.4

The State of the World's Children

Each year 7 million children worldwide die before their fifth birthday. Over 200 million children who do survive do not reach their developmental potential in early childhood.⁵ A range of powerful risk factors such as maternal under nutrition; lack of recommended breastfeeding; lack of access to clean water and sanitation; lack of stimulation and learning opportunities in many low- and middle-income countries lead to this loss of human potential. 6 These children face high odds of early mortality; school failure; early pregnancy; joblessness; and costly diseases across the lifespan.⁷ This represents an enormous challenge global sustainable development.

Evidence on Early Childhood Development Programs and Policies

In all countries, ECD services encompassing proven approaches to health, education, social and child protection are some of the most cost-effective interventions for long-term outcomes, including completed schooling, lifetime earnings, and reduced crime. Proven programs range from antenatal care and birth registration through nutrition and quality learning and education programs. Such solutions to maximize children's future contributions to sustainable development are available and known.

The economic benefits of investing in children are well-established. Quality preprimary education results in higher rates of primary and secondary completion, higher earnings in adulthood, and lower crime. ¹⁰ Raising preschool enrollment to 50% in low- and middle-income countries has been estimated to produce benefits of over \$33 billion USD. ¹¹ A nutrition and parenting stimulation intervention for infants and toddlers resulted in impacts 20 years later: higher IQ; reduced anxiety, depression and violence; and 50%

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higher earnings. 12 Not acting on these proven solutions -- not integrating them into progress on global targets and indicators -- will thus have substantial costs to societies.

A transformative approach to early childhood development is required. The SDSN Thematic Workgroup on Early Childhood Development, Education and the Transition to Work has put forward a target and indicators that reflect the comprehensive nature of early development and realize children's rights to their full developing humanity. In addition to these indicators specific to young children, it is critically important that indicators for a wide range of SDG's be disaggregated by age.

The capacity of nations to grow, innovate, and strengthen depends on a healthy and productive population. Therefore, the large number of children starting life at severe risk threatens all other Sustainable Development Goals.

References

Newman, D. L., & Silva, P. A. (1996). Behavioral observations at age 3 years predict adult psychiatric disorders: Longitudinal evidence from a birth cohort. *Archives of General Psychiatry*, *53*, 1033-1039.

⁴ Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged children. *Science*, 312, 1900-1902. Young, M.E. (forthcoming). *Addressing and Mitigating Vulnerability across the Life Cycle: The Case for Investing in Early Childhood*. United Nations Development Programme, Human Development Report Office, Occasional Papers Series. Harvard Center on the Developing Child (2011). *The foundations of lifelong health are built in early childhood*. Cambridge, MA: Author. Young, M.E. (2002). *From early child development to human development*. Washington, DC: World Bank. Consultative Group on Early Childhood Care and Development (2012). *Placing early childhood on the global agenda*. Toronto: Ryerson University.

⁵ Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., & Strupp, B. (2007). Developmental potential in the first 5 years for children in developing countries. *The Lancet*, 369, 60-70; UNICEF (2012). *Levels and trends in child mortality: Report 2012*. New York: Author.

⁶ Black, R.E., Victora, C., Walker, S.P., Bhutta, Z.A., Christian, P., DeOnis, M., Ezzati, M., Grantham-McGregor, S., Katz, J., Martorell, R., & Uauy, R., and the Maternal and Child Nutrition Study Group (2013). Maternal and child undernutrition and overweight in low-income and middle-income countries. *The Lancet.* Walker, S. P., Wachs, T. D., Grantham-McGregor, S., Black, M. M., Nelson, C. A., Huffman, S. L., ... & Richter, L. (2011). Inequality in early childhood: risk and protective factors for early child development. *The Lancet*, 378, 1325-1338.Aber, J.L., Lombardi, J., Klaus, S., & Campion, K. (2013). *A new global development goal for the world's youngest children.* Washington, DC: Institute of Medicine / National Academy of Sciences.

⁷ Shonkoff, J. P., Richter, L., van der Gaag, J., & Bhutta, Z. A. (2012). An integrated scientific framework for child survival and early childhood development. *Pediatrics*, 129, e460-e472.; Shonkoff, J. P., Garner, A. S., Siegel, B. S., Dobbins, M. I., Earls, M. F., McGuinn, L., ... & Wood, D. L. (2012). The lifelong effects of early

¹ Chan, M. (2013). Linking child survival and child development for health, equity and sustainable development. *The Lancet*. *381*, 1514-1515.

² Learning Metrics Task Force (2013). *Toward universal learning: What every child should learn.* Washington, DC: Brookings Institution; Harvard Center on the Developing Child (2007). *The science of early childhood development: Closing the gap between what we know and what we do.* Cambridge, MA: Author.

³ Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., ... & Japel, C. (2007). School readiness and later achievement. *Developmental psychology, 43,* 1428. Blair, C., & Razza, R. P. (2007). Relating effortful control, executive function, and false belief understanding to emerging math and literacy ability in kindergarten. *Child development, 78,* 647-663. Shonkoff, J. P., Boyce, W. T., & McEwen, B. S. (2009). Neuroscience, molecular biology, and the childhood roots of health disparities. *JAMA, 301,* 2252-2259. Caspi, A., Moffitt, T. E.,

childhood adversity and toxic stress. *Pediatrics*, 129, e232-e246.

⁸ Duncan, G. J., & Magnuson., K. (2013). Investing in preschool programs. *Journal of Economic Perspectives*, 27, 109-132; Lawrence Schweinhart et al., Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40 (Ypsilanti: High/Scope Press 2005); Frances Campbell et al. (2002). Early Childhood Education: Young Adult Outcomes from the Abecedarian Project. *Applied Developmental Science*, 6, 42-57. Kagitcibasi, C., Sunar, D., & Bekman, S. (2001). Long-term effects of early intervention: Turkish low-income mothers and children. *Journal of Applied Developmental Psychology*, 22, 333-361.

⁹ Engle, P. L., Fernald, L. C., Alderman, H., Behrman, J., O'Gara, C., Yousafzai, A., De Mello, M.C., Hidrobo, M., Ulkuer, N., Ertem, I., Iltus, S. and the Global Child Development Group (2011). Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries. The Lancet, 378, 1339-1353; Britto, P.R., Engle, P., & Super, C. (Eds.). (2013). Handbook of global early childhood development research and its impact on policy. New York: Oxford University Press. Chavan, M., Yoshikawa, H., & Bahadur, C. (2013). The future of our children: Lifelong, multi-generational learning for sustainable development. New Delhi, Paris, and New York: U.N. Sustainable Development Solutions Network, Report of Thematic Workgroup on Early Childhood Development, Education and the Transition to Work.

¹⁰ Heckman J.J., Moon, S., Pinto, R., Savelyev, P., & Yavitz A. (2010). The rate of return to the HighScope Perry Preschool Program. *Journal of Public Economics*, 94(1-2), 114-128. Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2006). *Early childhood interventions: Proven results, future promise*. Santa Monica, CA: Rand Corporation. Yilman H. & Yazihan N. (2010). *Early childhood development: Cost benefit analysis of ECD policies and fiscal space on combating child poverty in Turkey*. UNICEF Annual Report for Turkey. Behrman J.R., Cheng, Y. & Todd P. (2004). Evaluating preschool programs when length of exposure to the program varies: A nonparametric approach. *Review of Economics and Statistics*, 86 (1), 108-132

¹¹ Engle, P. L., Fernald, L. C., Alderman, H., Behrman, J., O'Gara, C., Yousafzai, A., De Mello, M.C., Hidrobo, M., Ulkuer, N., Ertem, I., Iltus, S. and the Global Child Development Group (2011). Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries. *The Lancet*, 378, 1339-1353.

¹² Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeerch, C., Walker, S., Chang, S.M., & Grantham-McGregor, S. (2013). *Labor market returns to early childhood stimulation: A 20-year follow up to an experimental intervention in Jamaica*. World Bank Policy Research Working Paper no. 6529.

¹³ U.N. Sustainable Development Solutions Network (2014). Sustainable development goals, targets and indicators. New Delhi, Paris, and New York: Leadership Council, U.N. SDSN. Chavan, M., Yoshikawa, H., & Bahadur, C. (2014). The future of our children: Lifelong, multi-generational learning for sustainable development. New Delhi, Paris, and New York: U.N. Sustainable Development Solutions Network. Aber, J.L., Lombardi, J., Klaus, S., & Campion, K. (2013). A new global development goal for the world's youngest children. Washington, DC: Institute of Medicine / National Academy of Sciences. Consultative Group on Early Childhood Care and Development (2013). A transformative solution: Reducing poverty and inequality through a global early childhood development goal.