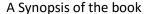
## **ENGINEERED SUSTAINABLE DEVELOPMENT**

## By Bantyehun Tezazu





Engineered Sustainable Development (ESD) is a compilation of integrated programs for realizing the United Nations Sustainable Development Goals (SDGs) that were adopted by the General Assembly on September 25, 2015. The book shows an effective way of engaging people and using tools and processes to solve interdependent social, economic and environmental issues with real life examples and industry best practices. ESD gives an assessment of previous initiatives to solve the problems, builds on the lessons learned and presents an expedited approach to addressing the immediate and long-term challenges. It also sketches a roadmap, implementation mechanisms, organization setup, and resourcing options.

ESD creates four opportunities for the world community. First, it enables fellow human beings to raise their productivity and create wealth to solve their problems. Second, it stops environmental degradation and helps reduce challenges of climate change. Third, it opens options for participating in programs that deliver an attractive dividend on investments. Fourth, it helps stabilize social systems and nurtures enduring peace. ESD is a paradigm shift from the traditional processes and philanthropic practices into an investment based practical actions of broad human engagement for collective benefits. It is a process of building bridges to use the earth's resources responsibly, while adequately meeting human needs. ESD is an integrating tool spanning multiple disciplines, engaging experts and using engineering principles and methods. ESD approach is a standard, proven successful process regularly applied to individual programs and projects, but rarely on a national or international scale.

ESD employs Educationally, Economically and Environmentally Engineered Productivity Revitalization (4EPR) set of integrated programs. 4EPR is a holistic approach or an integration of independent applications for overcoming the cross-cutting issues that are hampering sustainable development. It is a mechanism for carrying out comprehensive development to realistically and with better certainty meet the United Nations' Seventeen Sustainable Development Goals (SDGs) and the 169 associated targets in developing countries within their projected times.

The engineered approach provides rigorous, analytical and objective techniques and persistence for comprehensive solutions. ESD uses the lessons from different successful megaprojects, nation-building experiences, and a broad range of opinions and perspectives for a united action through peace and reconciliation.

When people cooperate, they can achieve fast relief, overcome multi-dimensional and multi-denominational challenges and reach sustainable development. They can reduce child mortality rates from preventable causes, stop millions from going to bed hungry, and engage people and create opportunities for every person have a meaningful and productive day. Engaged people can solve their problems, manage population growth, circumvent impact of inevitable natural catastrophic events, turn around environmental degradation, and nurture enduring worldwide peace. They can seriously make the world a better place for its entire people now and all future generations.

**Bantyehun Tezazu** is the founder of 4epr.org living in Toronto Canada. He got BASc and M.Eng Degrees in Electrical Engineering from the University of Toronto in Canada. He worked as a planner, investment advisor, and risk manager in the power system industry for over 25 years. His web page is <a href="https://www.4epr.org">www.4epr.org</a>.