

## Millennium Development Goals interventions by target

### **Income poverty (Goal 1, target 1)**

*Agriculture.* Increasing agricultural productivity directly raises the incomes of the rural poor and generates rural jobs.

*Nutrition.* Better nutrition contributes to human capital accumulation and improved labor productivity.

*Education.* Education increases human capital, which contributes to economic growth. Education is linked to lower fertility rates, which are in turn linked to increases in economic growth per capita.

*Gender equality.* Awareness of and access to reproductive health rights and services enable and empower women to plan their families, leading to lower fertility rates and reduced poverty. Empowerment through access to work, property rights, political representation, and safety from violence leads to increased participation of women in economic activity.

*Health.* Improved health has pervasive direct and indirect effects on raising both the level and the growth rate of income.

*Environment.* Many poor people depend on natural resources for their livelihoods. Improving natural resource management can sustain or even raise their incomes.

*Water and sanitation.* Improved water supply for productive activities can raise economic growth through agriculture and the urban manufacturing and service sectors.

*Slum upgrading and urban planning.* Providing security of tenure can improve labor market participation and access to credit markets. Urban infrastructure, including transport systems, is necessary for establishing manufacturing and service industries.

*Science and technology.* Science and technology institutions improve technological learning in society and improve the adoption of technology by the private sector. Higher education can open new employment opportunities.

*Energy.* Access to electricity, motive power, and improved thermal energy systems is necessary for manufacturing, service, or cottage industries.

*Transport.* Roads, railroads, and ports lower transport costs and thereby increase the real incomes of the poor. In urban areas improved transport infrastructure supports manufacturing and service industries, contributing to employment.

### **Hunger (Goal 1, target 2)**

*Agriculture.* Increasing agricultural productivity through investments in soil health, water management, extension services, and research increases food availability.

*Rural incomes and access to markets.* Improved access to credit, storage facilities, processing, and value-added technologies can help raise incomes, together with access to markets, farmer cooperatives/associations, and physical market spaces.

*Nutrition.* Nutrition interventions are needed for vulnerable populations and to ensure micronutrient intake. Direct food assistance in food-scarce areas alleviates short-term hunger.

*Education.* Education leads to more productive farming and better management of nutritional needs.

*Gender equality.* Land rights allow women to increase agricultural production. Increased access to work and higher incomes enable women to purchase adequate food for themselves and their families. Equal access to productive inputs increases plot yields.

*Health.* Reducing parasitic and infectious disease burden improves nutrition levels. Birth spacing protects maternal and child nutrition and health.

*Environment.* Improved water resource management and protection of water catchment areas can raise crop yields. Biodiversity protection sustains pollination and seed dispersal mechanisms necessary for agricultural production.

*Water and sanitation.* Safe drinking water reduces the incidence of diarrheal diseases, which contribute to malnourishment. Drinking water supplied through wells and boreholes can help irrigate fields during droughts. Access to sanitation reduces the incidence of diarrheal disease and thereby increases nutrient uptake. Integrated water resources management sustains adequate water supply for agriculture. Water storage and water management infrastructure improve water management for agriculture.

*Slum upgrading and urban planning.* Slum upgrading and accompanying interventions help raise incomes and reduce urban hunger. Improved transport infrastructure lowers the cost of food products, further reducing hunger.

*Science and technology.* Increased agricultural research is critical for improving seed varieties, cropping systems, pest control, and water management to increase agricultural productivity, thus reducing hunger. Increased access to higher education can help increase the number of agricultural extension workers. Information and communications technology improves farmers' market information, raising agricultural production.

*Energy.* Improved access to electricity and liquid fuels can power diesel pumps for irrigation, facilitate agricultural mechanization, and power agroprocessing machinery, thus increasing agricultural output and reducing hunger. Improved energy services lower transportation and marketing costs, which reduces food prices. Access to improved cooking fuels is necessary to ensure safe cooking of food.

*Transport.* Footpaths, roads, and improved transport services lower the cost of agricultural inputs, increase farmgate prices, and facilitate marketing, which can increase agricultural production. Improved transport infrastructure reduces postharvest losses through accelerated transport of products to markets.

### **Primary education (Goal 2, target 3)**

*Education interventions.* Provide demand-side incentives to retain children in school, management systems to increase parental involvement and school-based management, increased transparency and information, evaluation of learning outcomes, special packages to attract girls and children with disabilities and those in conflict and postconflict situations, adult literacy for women in particular, together with other core interventions such as building schools, providing trained teachers, and developing appropriate curricula, these will increase enrollment and retention of children at primary and postprimary levels.

*Agriculture.* Agricultural interventions to improve soils, seeds, and water management raise rural incomes and reduce the time young children spend in the field, freeing them to attend school.

*Nutrition.* Nutrition interventions for infants improve cognitive development and improve learning outcomes in the future.

*Gender equality.* Maternal education contributes strongly to higher primary enrollment.

*Health.* Improved health enhances educational outcomes by improving cognitive abilities and attendance rates. AIDS prevention and treatment reduce the disease's impact on teacher attendance and attrition. AIDS prevention and treatment reduce the number of orphans, who are less likely to complete primary education. Reproductive health services reduce the withdrawal of girls from school related to sibling care burdens caused by unplanned pregnancies or due to adolescent pregnancy.

*Environment.* Improved natural resource management can free up children's time and increase school attendance.

*Water and sanitation.* Improved access to water frees up children's time, thus allowing them to attend school. Improved health through sanitation and hygiene reduces school absenteeism. Installing girls' toilets in schools can increase girls' enrollment and completion rates.

*Slum upgrading and urban planning.* Security of land tenure and a fixed address are often necessary for children to be allowed to attend school.

*Science and technology.* Higher education is essential to training secondary school teachers and provides additional incentives to complete primary and secondary school. Information and communications infrastructure can improve the quality of education.

*Energy.* Access to electric power and improved cooking fuels lowers time spent by children (especially girls) collecting fuelwood, thus facilitating school attendance. Improved access to liquid fuels is necessary to render mechanized school transport more affordable. Electrification permits children to read and study for longer hours, thus improving school outcomes.

*Transport.* Improved transport infrastructure and services increase incentives for teachers to work in rural areas, reducing the time it takes for children to reach school and allowing them to travel farther, raising enrollment rates, reducing the time required for households to fetch fuel and water and to carry out other tasks, and lowering the opportunity cost of children attending school.

**Gender equality (Goal 3, target 4)**

*Gender interventions (not specified elsewhere).* Reduce violence against women, improve their property and other rights, ensure full access to reproductive health services, including contraception, and improve women's participation in decisionmaking processes.

*Agriculture.* Improved soils, seeds, and water provision can reduce the time girls spend in the field, freeing them to attend school. Providing fuelwood on farms through agroforestry trees decreases women's labor in search of firewood. Providing small-scale water management such as water harvesting decreases women and girls' transport burden to fetch water. Increased agricultural production increases the incomes of women farmers.

*Nutrition.* Nutrition interventions for girls (infants and children) lead to better health and education outcomes.

*Education.* Education contributes to increased employment opportunities, improved decisionmaking, and empowerment of women more broadly.

*Health.* Family planning services facilitate employment and social participation opportunities for women, strengthen partner relationships, and provide a greater sense of well-being and agency. Access to emergency obstetric care in the event of pregnancy and delivery complications saves women's lives.

*Environment.* Women benefit disproportionately from improved management of natural resources, including through time saving and reduced transport burden.

*Water and sanitation.* Improved access to water generates time savings for women and girls. Improved access to water reduces the need to carry heavy loads over long distances, thus improving women's health. Increasing access to toilets reduces women's exposure to harassment and improves personal hygiene and well-being.

*Slum upgrading and urban planning.* Women benefit disproportionately from slum upgrading, since it reduces their transport burden and time-poverty, improves their health, and provides them with additional income-generating opportunities.

*Energy.* Improved access to electricity and fuels reduces the time-poverty of women and lowers their daily transport burden. Improved access to energy creates additional employment opportunities for women.

*Transport.* Improved transport infrastructure and services reduce women's time-poverty and transport burden. Roads improve communication and lower transactions costs, thus increasing employment opportunities for women.

### **Child mortality (Goal 4, target 5)**

*Health interventions.* Provide the neonatal integrated package of interventions, immunization, the integrated management of childhood illness, and the range of preventive approaches (such as mass distribution of insecticide-treated bednets). Family planning can delay first births and reduce very short and very long birth intervals, thereby improving child health outcomes. Strengthening health systems will also be critical to achieving this Goal.

*Agriculture.* Increased rural incomes and food availability lead to improved health outcomes.

*Nutrition.* Nutrition interventions for pregnant women lead to higher birth-weight, an important determinant of child survival. Exclusive breastfeeding, complementary feeding after six months (HIV-positive mothers should use replacement feeding when it is acceptable, feasible, affordable, sustainable, and safe), and micronutrient supplementation reduce child mortality.

*Education.* Postprimary education increases the age of marriage, lowers fertility rates, and increases care seeking for child illnesses. Adult literacy programs increase awareness of the causes and prevention of child mortality.

*Gender equality.* Women's empowerment leads in multiple ways to greater awareness of child health issues.

*Environment.* Reducing pollution of water and air can lower child morbidity and mortality.

*Water and sanitation.* Access to clean water, sanitation, and improved hygiene reduce the incidence of waterborne disease.

*Slum upgrading and urban planning.* Slum upgrading, improved urban infrastructure, and access to basic services (including solid waste disposal) can reduce exposure to pollutants and thereby reduce child mortality rates. Road curbing and street lighting can reduce traffic deaths.

*Science and technology.* Information and communications technology improves diffusion of hygiene education and thereby lowers child mortality. Access to higher education increases the supply of health workers.

*Energy.* Reducing indoor air pollution through improved cooking fuels and stoves decreases respiratory infections. Improved access to energy allows households to boil water, thus reducing incidence of waterborne diseases.

*Transport.* Improved transport infrastructure increases access to healthcare clinics and services and reduces costs for healthcare workers to serve rural areas.

### **Maternal mortality (Goal 5, target 6)**

*Health interventions.* Ensure access to emergency obstetric care, skilled birth attendance and clean delivery, antenatal care and postpartum counseling, as well as safe abortion (where permitted by law). Access to family planning can reduce the number of unwanted and ill-timed pregnancies, reducing the lifetime exposure to the risk of maternal mortality and preventing recourse to abortion. Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* Increased rural incomes and food intake lead to improved health outcomes.

*Nutrition.* Nutrition interventions, such as adequate caloric intake and iron supplementation for women of reproductive age, reduce risk during pregnancy and childbirth.

*Education.* Postprimary education increases the age of marriage, contraceptive use, and access to prenatal care and safe delivery, all of which reduce maternal mortality. Adult literacy programs increase awareness of the causes and prevention of maternal mortality.

*Gender equality.* Women's empowerment leads to greater effective demand for family planning services, prenatal care, and safe delivery.

*Water and sanitation.* Running water and sanitation facilities are essential for provision of prenatal care and emergency obstetric care. Access to sanitation and hygienic behavior improve women's health.

*Slum upgrading and urban planning.* Slum upgrading and security of land tenure improve women's access to health systems and emergency obstetric care.

*Science and technology.* Information and communications technology is critical for providing adequate access to emergency obstetric care. Access to higher education increases the supply of health workers.

*Energy.* Improved access to energy services improves communication and transport, which are critical for emergency obstetric care. Modern energy services reduce costs for healthcare workers serving in rural areas.

*Transport.* Feeder roads and emergency transport are critical for providing timely access to emergency obstetric care. Improved transport infrastructure reduces the cost for healthcare workers serving in rural areas.

### **HIV/AIDS (Goal 6, target 7)**

*Health interventions.* Provide comprehensive HIV/AIDS prevention programs, orphan support, voluntary counseling and testing, harm reduction for drug users, prevention of mother-to-child transmission, antiretroviral treatment, and treatment of opportunistic infections. Linking reproductive health and HIV/AIDS program efforts can increase effectiveness, coverage, and efficiency of service delivery. Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* Increased agricultural incomes improve access to prevention and treatment.

*Nutrition.* Adequate nutrition can improve survival and quality of life for people with HIV. Nutritional supplementation programs for people with HIV improve antiretroviral adherence.

*Education.* With education, people are less likely to contract HIV and more likely to use health services effectively.

*Gender equality.* Women's empowerment leads to greater effective demand for HIV/AIDS prevention and treatment, including the ability to negotiate safe sexual practices.

*Water and sanitation.* Improving access to clean water and sanitation improves the nutritional status of people with HIV.

*Slum upgrading and urban planning.* Slum upgrading and security of land tenure improve access to HIV/AIDS treatment and prevention.

*Science and technology.* Scientific research can improve diagnosis and treatment of HIV. Information and communications technology is critical for media-based HIV prevention. Access to higher education increases the supply of health workers.

*Energy.* Electricity and modern energy services support functioning health clinics and hospitals. Modern energy services increase incentives for healthcare workers to work in rural areas.



*Transport.* Improved transport infrastructure and services facilitate treatment and prevention of HIV/AIDS. Improved transport infrastructure reduces costs for health workers serving in rural areas.

### **Malaria and other major diseases (Goal 6, target 8)**

*Health interventions.* For malaria, comprehensive use of insecticide-treated bed-nets, indoor residual spraying where appropriate, effective malaria treatment (using artemisinin combination therapies, where indicated), epidemic control measures, and promotion of new diagnostics, drugs, and vaccines. Strengthening health systems will be critical to achieving this Goal.

For TB, expansion of DOTS, DOTS-plus for multidrug-resistant TB, adaptation of TB treatment in high HIV prevalence settings, and promotion of new diagnostics, drugs, and vaccines. Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* An increase in agricultural incomes improves access to and information on ways of preventing and treating malaria and TB.

*Education.* Education and literacy programs increase awareness of ways to prevent and treat malaria and TB.

*Gender equality.* Women's empowerment leads to greater effective demand for insecticide-treated bed-nets and effective malaria and TB treatment.

*Environment.* In some instances environmental control can contribute to containing malaria and TB.

*Water and sanitation.* Improved water management in urban areas can contribute to containing mosquito breeding sites and transmission.

*Slum upgrading and urban planning.* Improving housing and urban water management infrastructure can reduce the incidence of malaria and especially TB (which has a higher rate of transmission in overcrowded slum conditions). Slum upgrading improves access to appropriate malaria and TB treatment.

*Science and technology.* Research is necessary to develop new drugs and diagnostics for malaria and TB. Access to higher education increases the supply of health workers.

*Energy.* Electricity and modern energy services improve healthcare. Modern energy services reduce cost for healthcare workers serving in rural areas.

*Transport.* Improved transport infrastructure and services reduce the cost of distributing bed-nets and essential health services including malaria and TB treatment. Improved transport infrastructure increases incentives for health-care workers to work in rural areas.

### **Access to essential medicines (Goal 8, target 17)**

*Health interventions.* Improve supply and distribution systems for essential medicines together with strengthening quality control, quality assurance, and programs to promote rational use. Strengthening health systems will be critical to achieving this Goal.

*Agriculture.* An increase in agricultural incomes makes all medicines more affordable.

*Education.* Education and literacy programs increase access to and appropriate use of essential medicines.

*Gender equality.* Women's empowerment leads to greater effective demand for essential medicines of good quality, including reproductive health commodities and supplies.

*Science and technology.* Research can generate new essential medicines and increase the effectiveness of existing ones.

*Transport.* Improved transport infrastructure and services lower the cost of essential medicines and improves access.

### **Reverse loss of environmental resources (Goal 7, target 9)**

*Environmental interventions.* Improve management of natural resources through market mechanisms, strengthened regulation and enforcement, and investments in the management of critical ecosystems.

*Agriculture.* Investments in soil health replenish soils and prevent further land degradation. Labor-intensive agricultural production is an alternative to slash-and-burn and to the deforestation that results. Agroforestry and other organic incomes increase agro-biodiversity and sequester carbon. Small-scale water management can restore water tables and reduce runoff. Food-for-work programs can help restore degraded ecosystems.

*Gender equality.* Equal access to property rights allows women, as primary users, to manage natural resources in a sustainable manner.

*Health.* Access to family planning services reduces total fertility rates to levels people desire, thus mitigating population pressures on the environment.

*Water and sanitation.* Improved sanitation and sewage treatment can reduce environmental pollution. Integrated water resources management can maintain ecosystem functioning. Hydrological monitoring systems can help protect aquifers and freshwater ecosystems from excessive withdrawals.

*Slum upgrading and urban planning.* Slum upgrading and improved urban water and waste management infrastructure reduce environmental pollution.

*Science and technology.* Research can improve natural resource management (including management of freshwater ecosystems and wetlands, and biodiversity conservation).

*Energy.* Access to modern cooking fuels reduces demand for biomass, thus reducing pressure on marginal lands and forests. Improved energy services reduce indoor labor and outdoor air pollution as well as carbon emissions.

### **Water and sanitation (Goal 7, target 10)**

*Water and sanitation interventions.* Provide, operate, and maintain water and sanitation infrastructure and services in conjunction with behavior change programs to improve household hygiene.

*Agriculture.* Small-scale water management increases water availability for rural farmers.

*Education.* Education and literacy programs improve hygiene and help ensure proper operation of water and sanitation facilities.

*Gender equality.* Political representation allows women to ensure that access to water is a priority in local decisionmaking.

*Environment.* Improved management of wetlands, water catchment areas, and freshwater ecosystems is critical for ensuring access to drinking water. Control of industrial pollution improves drinking water quality.

*Slum upgrading and urban planning.* Slum upgrading reduces water pollution and improves drinking water quality. Improved urban infrastructure ensures the separation of sewage from drinking water supplies.

*Science and technology.* Research can help improve sanitation and water management techniques. Access to higher education increases the supply of trained workers to design and manage water supply and sewer infrastructure.

*Energy.* Electricity and improved access to modern fuels are necessary to power water supply infrastructure and water treatment systems.

*Transport.* Improved transport infrastructure and services facilitate the provision, operation, and maintenance of water supply and sanitation systems. Improved transport systems reduce the costs of providing hygiene education through community workers.

**Improve the lives of slum dwellers (Goal 7, target 11)**

*Urban investments and slum-upgrading.* Scale up slum-upgrading with the support of improved urban planning and investments in core urban infrastructure as well as basic services.

*Agriculture.* Investing in urban agriculture increases agricultural productivity and the incomes of slum dwellers.

*Nutrition.* Nutrition interventions improve the health outcomes of urban populations.

*Education.* Education and literacy programs improve the employment prospects of slum dwellers.

*Gender equality.* Equal access to property rights, political representation, and security for girls and women allows women living in slums to improve their lives and the lives of their families.

*Health.* Access to preventive and curative health services, including sexual and reproductive health information and services, reduces the burden of ill health for slum dwellers.

*Environment.* Improving solid waste disposal and water treatment can improve health outcomes.

*Water and sanitation.* Improved access to water supply and sanitation services can reduce household expenditure on water. Sewage treatment can further improve health outcomes in urban areas. Storm water drainage systems are improved through sanitation infrastructure, thus minimizing the risk of flooding.

*Science and technology.* Higher education provides new employment opportunities for the urban poor. Information and communications technology reduces the cost of income-generating activities.

*Energy.* Improving access to electricity and modern fuels lowers indoor air pollution. Access to electricity and modern fuels can lower household expenditure on energy services, thus raising incomes. Improved energy services lower the cost of urban transport.

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*Transport.* Improved rural transport infrastructure and services reduce the cost of food in urban areas, thus increasing disposable incomes of slum dwellers. Improved urban transport infrastructure is critical to enhancing income-generating opportunities as well as access to social services. Proper sidewalks and curbing are critical to reduce traffic deaths.

**Information and communications technology (Goal 8, target 18)**

*Direct interventions.* Strengthen science advisory mechanisms, invest in higher education and research, promote private sector development, and improve access to communications technologies.

*Agriculture.* Increased agricultural incomes improve access to information and communications technology.

*Education.* Postprimary education prepares students for ability to provide, use, and manage information and communications technology.

*Energy.* Electricity is necessary to power information and communications technology applications and to operate research institutions.