Trialling the Millennium Villages Project in Papua New Guinea

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Based on current trends, Papua New Guinea is unlikely to meet the national government’s customised Millennium Development Goals (MDGs). Additional outside support and innovative ideas are required to assist rural smallholders to mobilise their own resources to produce higher incomes and to assist district governments to improve public service delivery. The Millennium Villages Project (MVP) philosophy is aligned with Papua New Guinea’s development priorities, as set out in its Medium Term Development Strategy. The proposed Millennium Villages trial in Papua New Guinea includes four rural and one urban location. The MVP trial in Papua New Guinea is designed to demonstrate that multi-sectoral rural investments can deliver practical, measurable development outcomes and show that the MDGs can be achieved. The trial will also provide practical lessons for scaling up community-level interventions that emphasise community participation and partnerships between government, community organisations, churches, the private sector and academic/research institutions.

Since 1800, the world average real per capita income has increased by more than 600 per cent (Maddison 2001). For a variety of economic, geographic, political and social reasons, some regions of the world have benefited more than others and in the past 300 years the world has changed from a place where most people are poor into one in which one-sixth of the global population lives in rich countries and one-sixth lives on less than the extreme poverty benchmark of US$1.25 a day (UNDP n.d.). The UN Millennium Declaration, signed by member states in September 2000, envisions that in the twenty-first century, existing social and economic gaps will begin to close (United Nations 2000). The Millennium Development Goals (MDGs) derived from the declaration provide time-bound, measurable targets to be met at the global level to help shrink the distance between the two ends of the development continuum (United Nations n.d.). The MDGs are now the cornerstone of international development policy.

Achieving the MDGs at the global level will improve the wellbeing of hundreds of millions of people. More than 500 million
people will rise above the extreme poverty level, more than 300 million people will not go hungry, 30 million more children will live beyond five years of age, 2 million more mothers will survive child bearing, 350 million additional people will have safe drinking water and 650 million more will be able to access basic sanitation (United Nations Millennium Project 2005). Life will improve for millions and new opportunities will arise for them.

Papua New Guinea is Australia’s nearest national neighbour, separated by only a few kilometres. Papua New Guinea has customised the global targets of the MDGs to better reflect its specific situation (Annex Table 1). The 2004 PNG progress report for the MDGs (Government of Papua New Guinea and United Nations in Papua New Guinea 2005) and a more recent AusAID analysis (AusAID 2009) both conclude, however, that it is highly unlikely that Papua New Guinea will meet any of the MDGs by 2015 given current trends. Papua New Guinea’s challenge to meet the MDGs is as daunting as that for many sub-Saharan African countries. Improved strategies and additional assistance from the international community are required to improve Papua New Guinea’s trajectory towards achieving the MDGs.

The Millennium Villages Project model

The MDGs are multi-sectoral, so effective strategies designed to meet them must also be multi-sectoral. The Millennium Villages Project (MVP) concept is based on the work of the United Nation’s Millennium Project (United Nations Millennium Project 2005), led by Professor Jeffrey Sachs, director of the Earth Institute at Columbia University in the United States. The MVP aims to demonstrate that community-led development that draws on the proven, evidence-based implementation technologies and strategies recommended by the United Nation’s Millennium Project can achieve the MDGs at the local level over five–10 years (Sanchez et al 2007). Initial MVPs were implemented between 2004 and 2006 in 10 sub-Saharan African countries, covering 400,000 people, in an effort to establish a proof of concept (Millennium Villages 2007). There has been subsequent expansion of the population covered by the initial projects and the number of countries trialling the MVP model.

At the heart of the model is a highly qualified, multidisciplinary MVP team—all country nationals—who work with community members and leaders to build partnerships with government and non-governmental organisations in order to develop and implement a set of interventions across agriculture, business and community development, education, health and infrastructure including communications, sanitation and water (Table 1). The principles of gender equity and environmental sustainability are incorporated in the interventions, as are linkages to local, national and global development strategies (Millennium Villages 2009). Immediate and long-term synergies flow from the implementation of multi-sector interventions in the community. For example, increased agricultural output and diversity improve nutrition and health status. Also, the introduction of school lunch programs, supported by increased agricultural output, increases school enrolment and performance. The agricultural sector interventions therefore improve outcomes in the health and education sectors. The MVP model encourages active partnerships with government agencies at all levels, with churches and other non-governmental organisations, universities and research institutions, as well as the
private sector. Community members are expected to contribute labour, ideas and energy. Together, these partnerships strengthen local development networks and facilitate community-based empowerment and initiative. Simultaneous investment in interventions across multiple sectors enables communities to ascend the development ladder and experience self-sustaining economic growth.

MVP interventions are designed so that in the early years of operation many of the quick wins identified by the UN Millennium Project (2005) are achieved (Table 2). Often existing capacity and infrastructure are adequate for the quick-win interventions. While implementing the quick-win strategies, planning and training for the more complex and longer-term interventions occur. Achieving success early on through the quick-win strategy can motivate community members and development partners.

The MVP model uses a cost-sharing approach to fund the projects. A typical MVP invests US$110 per capita per annum for interventions over five–10 years. Management costs add an additional US$10 per capita for a total investment of US$120 per capita annually. Local and national governments contribute US$30, partner organisations contribute US$20, community members contribute US$10 and the MVP finances US$60. The MVP financing comes from Millennium Promise, other international development agencies and governments. On the expenditure side, 30 per cent is invested in health, 20 per cent in education, 20 per cent in infrastructure, 15 per cent in water, sanitation and the environment and 15 per cent in agriculture and nutrition (Sanchez, Palm, Sachs, Denning, Flor, Harawa, Jama, Kiflemariam, Konecky, Kozar, Lelerai, Malik, Modi, Mutuo, Niang, Okoth, Place, Sachs, Said, Siriri, Teklehaimanot, Wang, Wangila and

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<tr>
<th>Table 1</th>
<th><strong>Key Millennium Villages interventions</strong></th>
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<tr>
<td>1.</td>
<td>Fertiliser, high-yield seeds and improved cultivating methods</td>
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<td>2.</td>
<td>School lunches for all children, using locally produced foods</td>
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<td>3.</td>
<td>Empowering women through targeted investments and micro-enterprises</td>
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<td>4.</td>
<td>Support for local health clinics</td>
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<td>5.</td>
<td>Long-lasting, insecticide-treated bed-net distribution</td>
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<td>6.</td>
<td>Anti-retroviral drugs for people living with HIV/AIDS</td>
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<td>7.</td>
<td>Safe water points</td>
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<td>8.</td>
<td>Mobile phones and Internet connectivity, where feasible</td>
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<td>9.</td>
<td>Environmental sustainability and protection</td>
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<tr>
<td>10.</td>
<td>Improved infrastructure—power, roads and sanitation</td>
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Table 2  **Selected quick wins**

Providing free school meals for all children with take-home rations using locally produced foods

Designing community nutrition programs for pregnant and lactating women and children under five that support breastfeeding, provide access to locally produced complementary foods and, where needed, provide micronutrient (especially zinc and vitamin A) supplementation

Providing regular annual de-worming to all schoolchildren in affected areas to improve health and educational outcomes

Training large numbers of village workers in health, farming and infrastructure (in one-year programs) to ensure basic expertise and services in rural communities

Distributing free, long-lasting, insecticide-treated bed-nets to all children in malaria-endemic zones to cut decisively the burden of malaria

Eliminating user fees for basic health services in all developing countries, financed by increased domestic and donor resources for health

Expanding access to sexual and reproductive health information and services, including family planning and contraceptive information and services, and closing existing funding gaps for supplies and logistics

Expanding the use of proven effective drug combinations for AIDS, tuberculosis and malaria

Providing access to electricity, water, sanitation and the Internet for all hospitals, schools and other social service institutions, using off-grid diesel generators, solar panels or other appropriate technologies

Launching national campaigns to reduce violence against women

Empowering women to play a central role in formulating and monitoring MDG-based poverty reduction strategies and other critical policy reform processes, particularly at the local government level

Providing community-level support for tree planting to provide nutrients for the soil, fuel wood, shade, fodder, watershed protection, windbreaks and timber

This cost-sharing approach increases the buy-in from partners as each is making a contribution to the project.

Some of the early achievements of the African MVPs were identified in a formative review conducted in Ethiopia, Ghana, Malawi and Uganda by the Overseas Development Institute during 2008 (Buse, Ludi and Vigneri 2008). The review focused on the agricultural and health sectors. The review states: ‘There is considerable evidence of significant improvements at household and village levels in the health and agricultural sectors, as well as in a number of crosscutting domains’ (Buse, Ludi and Vigneri 2008:x). Identified interventions in the agricultural sector included the distribution of improved seeds and subsidised fertilisers, provision of agricultural extension services and improved natural resource management. Due to those interventions, yields of staple crops increased between 85 per cent and 350 per cent. Crop diversification also helped to improve nutrition and community income. Health interventions included the training of community health workers, the distribution of long-lasting insecticide-treated bed-nets to households and the distribution of free anti-malaria medicine to clinics. Those interventions led to improved community-based prevention and treatment of common illnesses, including malaria. A reduction in the malaria case load of nearly 50 per cent was reported at the Ethiopian site. The projects also constructed or rehabilitated health clinics, improved the provision of medical supplies and provided in-service training that helped strengthen clinical skills and referral services. The review team found that the communities highly valued the interventions undertaken by the projects.

**PNG Millennium Villages trial**

The Millennium Villages approach aligns with current PNG government development policies such as the Medium Term Development Strategy, Long Term Development Strategy, Community Development Policy, District Services Improvement Strategy and the National Agricultural Plan. The goals of the Millennium Villages trial are to provide a model that will help Papua New Guinea progress towards achieving the MDGs and to demonstrate how current government policy can be turned into service delivery at the local level, utilising a community-led approach that assists communities to help themselves.

Papua New Guinea’s Medium Term Development Strategy 2005–10 is the overarching strategy for guiding the government’s expenditure program (Government of Papua New Guinea 2004). Implementation of the Medium Term Development Strategy is linked to the achievement of Papua New Guinea’s customised MDG targets. Key components of the Medium Term Development Strategy are export-driven economic growth, rural development and poverty reduction. Papua New Guinea achieved strong gross domestic product (GDP) growth in 2007 (7.2 per cent) and 2008 (6.7 per cent), but estimated growth for 2009 was lower (4.5 per cent), due largely to declines in export volumes and prices for minerals and petroleum and a slowdown of construction in the communications sector (Government of Papua New Guinea 2009). Given that approximately 85 per cent of the population lives on subsistence agriculture, the Medium Term Development Strategy will be realised only by empowering Papua New Guineans, especially in rural areas, to mobilise their own resources for higher living standards (Government of Papua New Guinea 2004).
The primary sector, including agriculture, fisheries and forestry, is identified as the priority area for assistance to promote economic growth. Administrative capacity at the district and provincial levels must, however, be improved for effective implementation of the Medium Term Development Strategy. The national government is striving to create an enabling environment in which to deliver higher rewards for productive effort. The aim is to encourage smallholders to mobilise their own resources for higher incomes. Improving the health and education levels of Papua New Guineans will help to reduce poverty. Within the Medium Term Development Strategy, ordinary Papua New Guineans are encouraged to assist in service delivery by contributing their labour and lands.

The proposed PNG Millennium Villages trial is based on the same five implementation principles that have been used in the initial projects.

1. Sustainability: aid to communities will end, so increased community income is required.
2. Community leadership: do not depend on expatriates and consultants; MVP team members are nationals.
3. Realistic financing: sufficient funding but no ‘gold-plating’; US$120 per capita annually including in-kind contributions.
4. Linked to national strategies: supports scaling up to larger populations and achieves government priorities.
5. Careful monitoring and evaluation: to enable replication of success and scaling up of activities.

Intervention strategies will have to be tailored to individual communities, as there are no one-size-fits-all solutions in Papua New Guinea.

An inclusive partnership approach is central to the trial’s structure. Community ownership and leadership are vital components. A multidisciplinary technical Millennium Villages team—all nationals—will support communities with skills in agriculture, business, community development, education, infrastructure (water and sanitation), health and monitoring and evaluation. This team will work closely with local-level and district government staff. Linkages to provincial and national government department staff will also be facilitated. Churches and non-governmental organisations serving the trial communities will be encouraged to participate in this partnership, as will the private sector. A university consortium comprising PNG and international universities/research institutions will provide additional technical and research support to the trial communities.

Communities will be assisted to refine and implement district government development plans working with ward, local-level government and district officials. The Millennium Villages technical team will provide advice and training at the community level. Training opportunities for interested staff of other partner organisations will also be arranged. For example, community members might be interested in practical skills in agriculture, business development, community mobilisation and environmental sustainability. Staff from partner organisations (government and non-government) might be interested in financial management, project management, program monitoring and evaluation and time-management training. These activities will strengthen the local development networks and improve their capacity for service delivery.

The PNG Department of National Planning and Monitoring has carriage of the MDGs. The Department of Community
Development is a key partner for the MVP trial. Other line agencies will also have important roles in the Millennium Villages trial. The Department of National Planning and Monitoring has selected five sites for the trial. The four rural district sites are aligned with proposed economic development corridors, represent the four PNG regions and include communities at different levels of development and with different access to markets. The rural sites are located in the following districts: Kikori, Gulf Province; Pomio, East New Britain Province; Sumkar, Madang Province; and Henganofi, Eastern Highlands Province. A population cluster of approximately 7,000 people in each district will initially be included in the trial. The fifth trial site is a peri-urban location in Moresby South that includes a cluster of traditional landowner and invited settler villages.

The overall goal of the Millennium Villages trial is to demonstrate that the MDGs can be achieved at the local level. The multi-sectoral intervention approach will increase the communities’ economic base, thereby enhancing sustainability. Strengthening the local development network, which includes government, will improve service delivery capacity and efficiency and enhance sustainability. University and research institute partnerships will enable the lessons learned in the trial to be quickly incorporated into educational curricula to enlarge the pool of graduates with relevant skills in rural development, while enhancing postgraduate training opportunities. Partnerships between PNG and international universities will increase the pool of researchers and postgraduate supervisors, facilitating a higher output of relevant development knowledge.

The Millennium Villages trial will focus on community-led, multi-sector, integrated interventions aligned with national, provincial and district government development priorities and initiatives. It will provide a bottom-up complement to the government’s top-down policies. The combined top-down, bottom-up strategies should improve Papua New Guinea’s trajectory towards achieving the MDGs.

A beautiful and hard country

Papua New Guinea is a beautiful but hard land with many challenges that must be overcome if it is to meet the MDGs. Those challenges will also affect the implementation of the Millennium Villages trial. Some of the geographic, demographic, economic and administrative challenges are discussed in this section.

Papua New Guinea sits on the meeting point of the Indo-Australian and Pacific tectonic plates. This location on the ‘ring of fire’ increases the risk of natural disasters such as volcanic eruptions and earthquakes and is responsible for Papua New Guinea’s high mountain ranges that make transport so difficult. Road building and maintenance are technically difficult and expensive, so there are few good roads linking people together and providing access to markets. Port Moresby, the capital city, does not have road links to the other major population centres.

Demographically, the country is young (Figure 1). The young population requires large expenditures in education along with child and maternal health as investments in human capital. Extensive job creation is also required in the near term to provide opportunities for young people in order to maintain social harmony and limit criminal behaviour. Papua New Guinea is one of the most linguistically diverse countries in the world, with more than 800 languages—more than 10 per cent of the world’s languages—spoken by its 6 million people (Ray 2006:144). In Madang Province alone, its population of 400,000 people speaks...
more than 160 languages (Ray 2006:144). Although Tok Pisin is the *lingua franca* in much of the country, it is not universally spoken. Communication between people from different language groups can be difficult and confusing. Social customs also vary widely among the different language groups. For example, some groups are matriarchal and others are patriarchal. This social diversity can at times strain social harmony and inhibit cooperative action. Although its infrastructure and social needs are many, Papua New Guinea is classified by the World Bank (2009) as a low-income country. In recent years, however, Papua New Guinea has enjoyed strong economic growth (Table 3). Papua New Guinea’s 2008 Human Development Index score of 0.53 placed it between Haiti (the poorest country in the western hemisphere) and Cameroon, in West Africa (UNDP 2008). Papua New Guinea does not possess the economic resources it needs to invest in the physical and social infrastructure required to achieve the MDGs. Continuing expansion of the mining and petroleum sectors, particularly natural gas, promises a larger economy and additional export earnings in the future. Papua New Guinea will, however, have to avoid the ‘resource curse’ and find effective ways to channel benefits to the rural areas where 87 per cent of the population lives in order to achieve broad-based development.

Politically, Papua New Guinea is a young country, having achieved its independence in 1975. It has a federal structure of government with 20 provinces (two more have been authorised by recent legislation) and 89 districts. Australians are aware of the administrative challenges that a three-tiered government structure presents and the difficulties of coordinating policy between a national government, six states and two territories; however, Papua New Guinea has twice as many political entities (excluding local government) and a smaller talent pool for staff recruitment. Administrative challenges loom large for Papua New Guinea.

**Figure 1** Population pyramids for Australia and Papua New Guinea, 2009

Conclusion

The current level and scope of development activities in Papua New Guinea will not be sufficient to enable the country to meet the government’s customised MDGs. Innovative models and strategies applied at a larger scale will be required if Papua New Guinea is to make significant progress towards achieving the MDGs. The proposed Millennium Villages trial will empower communities and local governments to achieve sustainable development through simultaneous investments across multiple sectors, including access to clean water, business skills, education, food production, health and essential infrastructure. One urban and four rural trial sites will allow the model to be tuned to local conditions. The partnership and cost-sharing attributes of the Millennium Villages model strengthen local development networks, encourage buy-in by key partners and contribute to long-term sustainability of the interventions.

Implementation of the Millennium Villages trial is expected to begin in 2010. Discussions and planning for the trial have been taking place between the PNG government and other key partners during the past 12 months. Funding commitments from international development partners are also being discussed. The PNG National Executive Committee’s approval for the trial is expected in early 2010. Discussions with potential private sector and foundation partners are continuing. A detailed project scoping exercise is planned for the first half of 2010.

The PNG Millennium Villages trial seeks to demonstrate that multi-sector investments can deliver practical, measurable development outcomes on the ground and that the MDGs can be met at the local level. Implementing proven, science-based interventions and strengthening the technical capacity of community members, government and non-governmental partners, combined with local knowledge, will increase income-generating activities and improve the health and wellbeing of community members in a sustainable way. Successful interventions can then be scaled up to cover larger populations. A successful trial of the Millennium Villages model in Papua New Guinea will also demonstrate that the model has potential within the wider Asia Pacific region. The Pacific region is currently not on track to achieve the MDGs.

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<th>Table 3</th>
<th>Selected economic indicators, Papua New Guinea, 2009</th>
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<tr>
<td>GDP (est. 2009)</td>
<td>K21.8 billion (A$9.8 billion)</td>
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<td>GDP growth (est. 2009)</td>
<td>4.5 %</td>
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<tr>
<td>GDP per capita (est. 2009)</td>
<td>K3,633 (A$1,635)</td>
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<td>Inflation (est. 2009)</td>
<td>7.4 %</td>
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**Note:** The currency conversion rate used was K1 = A$0.45. The 2009 per capita GDP was calculated using a population of 6 million.

References


Buse, K., Ludi, E. and Vigneri, M., 2008. Sustaining and Scaling the Millennium Villages: moving from rural investments to national development plans to reach the MDGs, Overseas Development Institute, London.


**Acknowledgments**

I thank my colleagues in Papua New Guinea, the United States and Australia who have contributed to the development of the PNG MVP trial and continue to work towards its implementation.
### Papua New Guinea’s national goals and targets for monitoring the Millennium Development Goals

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<th>Goals</th>
<th>Targets</th>
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<tr>
<td><strong>MDG 1: Eradicate extreme poverty and hunger</strong></td>
<td><strong>Target 1:</strong> Reduce the proportion of people below the poverty line by 10 per cent by 2015, using the 1996 national average figure of 30 per cent below the lower poverty line as the benchmark figure</td>
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<td><strong>Target 2:</strong> By 2015, increase by 10 per cent the total amount of agriculture commercially produced and by 34 per cent the amount of subsistence agriculture production (note: for this target 2003 is the base year not 1990)</td>
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<td><strong>MDG 2: Achieve universal primary education</strong></td>
<td><strong>Target 3:</strong> Achieve a gross enrolment rate of 85 per cent at the primary level by 2015</td>
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<td><strong>Target 4:</strong> Achieve a cohort retention rate of 70 per cent at the primary level by 2025</td>
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<td><strong>Target 5:</strong> Achieve a (indirectly measured) youth literacy rate of 70 per cent by 2015</td>
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<td><strong>MDG 3: Promote gender equality and empower women</strong></td>
<td><strong>Target 6:</strong> Eliminate gender disparity at the primary and lower secondary levels by 2015 and at the upper secondary level and above by 2030</td>
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<td><strong>MDG 4: Reduce child mortality</strong></td>
<td><strong>Target 7:</strong> Reduce the infant mortality rate to 44 per 1,000 by 2015</td>
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<td><strong>Target 8:</strong> Reduce the under-five mortality rate to 72 per 1,000 by 2015</td>
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<td><strong>MDG 5: Improve maternal health</strong></td>
<td><strong>Target 9:</strong> Decrease the maternal mortality rate to 274 per 100,000 live births by 2015</td>
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<td><strong>MDG 6: Combat HIV/AIDS, malaria and other diseases</strong></td>
<td><strong>Target 10:</strong> By 2015, control and, by 2020 stabilise, the spread of HIV/AIDS</td>
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<td><strong>Target 11:</strong> By 2015, control and, by 2020 either stabilise or reduce, the incidence of pneumonia, malaria and other major diseases</td>
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<td><strong>MDG 7: Ensure environmental sustainability</strong></td>
<td><strong>Target 12:</strong> Implement the principles of sustainable development through sector-specific programs by 2010 and no later than 2015</td>
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<td><strong>Target 13:</strong> By 2020, increase commercial use of land and natural resources through improvements in environmentally friendly technologies and methods of production</td>
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<td><strong>Target 14:</strong> Increase to 60 per cent the number of households with access to safe water by 2010 and to 85 per cent by 2020</td>
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<td><strong>Target 15:</strong> By 2020, achieve a significant improvement in the lives of disadvantaged and vulnerable groups in urban areas</td>
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