

Advocating for Sustainable Development in Burma

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Introduction

This is a resource for organisations and individuals advocating about sustainable development issues in Burma. This resource provides information about the concept of sustainable development and about the government of Burma's commitments and responsibilities when it comes to sustainable development.

Sustainable development is development that does not damage the environment or the country's natural resources, and that meets people's needs, including the needs of the most vulnerable communities. Sustainable development relates to many aspects of the natural world and of people's lives. These aspects include: biodiversity (variety in the natural environment), land (including mining), forests, agriculture, water, energy, and the economy.

The first chapter of this resource provides selected definitions of sustainable development and explains best practice in sustainable development. It also compares the views of the United Nations, the Burmese government, and other governments in Southeast Asia on sustainable development. Finally, this chapter introduces several important international agreements and national laws that affect sustainable development in Burma, and also talks about key sources of funding for development.

The second chapter of the resource introduces climate change as a key concept in sustainable development. Climate change – changes in the climate over time, made worse by human activities – affects the environment and people's lives. Sustainable development needs to help people and the environment deal with the increasingly common challenges of a changing climate. Examples include flooding, drought, heat waves, and changes in the weather and growing seasons. The chapter closes by explaining the international agreements that relate to climate change in Burma, as well as possible sources of funding to help Burma deal with the impacts of climate change.

Chapter three is broken into sections that discuss the aspects of the natural world and of people's lives related to sustainable development one by one (biodiversity, land, forests, agriculture, water, energy, and the economy), highlighting connections with climate change where needed. Each section first explains why a particular aspect is important for sustainable development. The section then looks at the international agreements and national laws that Burma's government is supposed to follow regarding that aspect of sustainable development. Finally, each section looks at institutions that fund or could fund development projects in Burma, and the specific sustainable development rules these institutions have relating to the particular aspect.

Chapter four examines the issues around development projects, as well as advocacy about sustainable development, using two case studies. A case study on the Yadana Pipeline looks at different ways to start or continue advocating about environmental or human rights abuses once a development project has gone ahead. The other case study, on the proposed Myitsone Dam, looks at ways to campaign to stop a proposed development project, or to make it more sustainable. Each case study explains why the development project is not sustainable, what campaigners have done, and what could be done in the future.

The final chapter provides resources for advocacy on sustainable development. It gives guidelines for assessing changes in Burma's environmental laws and policies; explains which organisation or ministry within Burma's government is responsible for each aspect of development; and provides a list of organisations and resources for further information.

Chapter I: What Is Sustainable Development?

Development means improvements to the economy or to the infrastructure of a country that make people's lives more comfortable or secure by providing them with better jobs or livelihoods and more resources. Infrastructure can include physical things like roads, or non-physical things like health care or better government.

Sustainable development is a type of development. When development is *sustainable*, it means that it is possible to carry out this type of development over the long term. Sustainable development must not seriously damage the natural environment, or use up the environment's resources (things like clean water, fertile soil, plants, animals, and fuel such as oil and gas) faster than natural processes create these resources. Sustainable development must also be socially sustainable. That means it must be carried out in a way that respects the differences between cultures, and that takes into account the interests of the most vulnerable people (including the poor, ethnic minorities, women, and children), so that development does not make things worse for people in the long run.

Development can be carried out by different people at different levels. Local communities can take steps to improve their lives. Sometimes, local or international non-governmental organisations (NGOs) or community-based organisations can get involved in these projects. National governments and international institutions, like the United Nations, can also get involved in development, as can private companies. Not all development is sustainable. Sometimes, development projects harm the environment or make things worse for local people. This is why the principle of sustainable development is important.

All of this is a basic explanation of sustainable development. However, different groups involved in development also have different ideas about what sustainable development means. Here is a list of some of the groups involved with development in Burma, and an explanation of what each group thinks about sustainable development.

Views of Sustainable Development

The United Nations

The United Nations (UN) defines sustainable development as development that meets people's current needs, without making it harder for future generations to meet their own needs. This means that environmental protection and development must go together.¹ The UN definition also says that creating peace and ending poverty are important parts of sustainable development.² The UN states that sustainable development must be environmentally, economically, and socially sustainable.³ Simply put, this means that sustainable development must protect the environment, allow the economy to thrive, and address poverty and social problems.

¹ "Our Common Future," (New York: World Commission on Environment and Development, 1987).

² "Rio Declaration on Environment and Development," ed. United Nations (Rio de Janeiro: United Nations, 1992).

³ United Nations General Assembly, "2005 World Summit Outcome," (New York: 2005).

Sustainable development also needs to be culturally sustainable. This means that sustainable development should help to protect and promote cultural diversity⁴, including promoting indigenous and ethnic minority cultures.⁵

Governments in Southeast Asia

In Southeast Asia, governments realise that rapid economic growth has had environmental costs, and want to find a way to meet people's growing needs for resources and energy without harming the environment.

Asian governments in general tend to see sustainable development as a possible business opportunity – that is, an opportunity to create a *green economy*, based on sustainable industries and on ways to protect the environment – and Asian countries have invested more money in developing green economies during the current global recession than other countries.⁶ At the last Association of South East Asian Nations (ASEAN) summit, Southeast Asian leaders signed an agreement to promote green economic growth and the sustainable use of resources, in order to make their economies stronger and more resilient.

Southeast Asian countries tend to focus on certain aspects of sustainable development. These include preserving forests and water supplies, creating buildings that use fewer resources and less energy, and protecting themselves against natural disasters. Many Southeast Asian governments are also starting to recognise that traditional cultures are often good examples of how to use resources sustainably.⁷

The Burmese Government

The Burmese government has signed the United Nations' Rio Declaration on Environment and Development, which means that Burma has agreed to the UN's idea of sustainable development. The government has said that sustainable development means finding a balance between protecting natural resources, growing the economy, and meeting the needs of Burma's people.⁸ The government has also described its vision of sustainable development as "Wealth and Happiness for Myanmar People", including sustainable economic and social development, environmental protection, protection of culture, and good governance.⁹

In its public statements, the Burmese government focuses on protecting forests and encouraging the creation of an economy that sustainably uses resources as the key parts of sustainable development. However, the government has also said that it lacks the capacity and the technology to create real green economic growth, and that Burma

⁴ "Convention on the Protection and Promotion of the Diversity of Cultural Expressions," ed. Scientific United Nations Educational, and Cultural Organisation (UNESCO) (Paris: 2005).

⁵ "Rio Declaration on Environment and Development."

⁶ "Sustainable Development in Asia and the Pacific: Trends, Challenges, Opportunities, and Policy Perspectives," (Astana: United Nations Economic and Social Commission for Asia and the Pacific, 2010).

⁷ "Meeting of Ministers," United Nations Economic and Social Commission for Asia and the Pacific, <http://www.unescap.org/mced/mom/>.

⁸ Myanmar Ministry of Environmental Conservation and Forestry, "Green Development Initiative in Myanmar," in *ASEAN-China Environmental Cooperation Forum Innovation for Green Development* (Nanning, China: 2011).

⁹ "National Sustainable Development Strategy for Myanmar," ed. Myanmar Ministry of Environmental Conservation and Forestry (Naypyidaw: 2009).

needs help from other countries to do this. This suggests that the government may see sustainable development as a goal for the future, not as something Burma is able to do now.¹⁰

Best Practice in Sustainable Development

The United Nations' view of sustainable development provides a good starting point. Over time, experts and communities affected by development have taken the idea of sustainable development further, adding new elements. It is widely agreed now that for development to be sustainable, it must benefit different groups of people fairly. For example, sustainable development must take into account the needs of women, and of minorities. Also, all the people and groups affected by development should have a say in how development is carried out. These principles are contained in the Earth Charter, which is a non-binding statement about sustainable development created and signed by a wide range of community groups and NGOs from around the world, including youth groups from Burma.¹¹

A growing number of community and international groups, such as the International Institute for Sustainable Development,¹² now recognise that sustainable development should take into account that the world's climate is changing. This means that the risks countries face, and the opportunities for development they have, are changing as well. Sustainable development should be based on what the climate will be like many years from now, and not just on what it is like today.

Key International Policies on Sustainable Development

National Environment Policy

In 1994, Burma's government adopted a National Environment Policy. This says:

"The wealth of a nation is its people, its cultural heritage, its environment and its natural resources. The objective of Myanmar's environment policy is aimed at achieving harmony and balance between these through the integration of environmental considerations into the development process to enhance the quality of life of all its citizens. Every nation has the sovereign right to utilize its natural resources in accordance with its environmental policies; but great care must be taken not to exceed its jurisdiction or infringe upon the interests of other nations. It is the responsibility of the state and every citizen to preserve its natural resources in the interest of present and future generations. Environmental protection should always be the primary objective in seeking development."¹³

There are several important principles in this policy. The policy says that economic development should include environmental protection, and also that the goal both of growing the economy and of protecting the environment is to improve the lives of

¹⁰ Ministry of Environmental Conservation and Forestry, "Green Development Initiative in Myanmar."

¹¹ The Earth Charter Initiative, "The Earth Charter," (2000).

¹² International Institute for Sustainable Development, "Climate Change and Energy," <http://www.iisd.org/climate/>.

¹³ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies," (Chiang Mai, Thailand: Burma Environmental Working Group, 2011). Page 19.

Burma's citizens. These basic principles are similar to those established by the United Nations for sustainable development.

However, other parts of Burma's National Environment Policy are more of a problem. The policy says that both the government and the people have a responsibility to protect the environment, but it does not mention the people of Burma having any rights when it comes to the environment. Instead, the policy only says that the government has the right to use Burma's natural resources as it sees fit. This is in line with Burma's constitution, adopted in 2008, which says that the government is the "ultimate owner of all lands and all natural resources" in Burma.¹⁴

Agenda 21 and the National Sustainable Development Strategy

What is Agenda 21?

In 1992, 178 countries, including Burma, adopted a non-binding agreement on sustainable development called Agenda 21. Agenda 21 lays out actions these countries have agreed to take on different aspects of sustainable development. In 1997, Burma's government published *Myanmar Agenda 21*, a document that explains how Burma intends to meet its obligations under Agenda 21.

Agenda 21 is important because it states both what actions governments are supposed to take on sustainable development, and how governments are supposed to take those actions. The government of Burma is supposed to report its progress in meeting its obligations back to the United Nations, but its reports are behind schedule.¹⁵

Agenda 21 states that governments should develop "a long-term strategy aimed at establishing the best possible conditions for sustainable local, regional and national development that would eliminate poverty and reduce the inequalities between various population groups. It should assist the most disadvantaged groups – in particular, women, children and youth within those groups – and refugees. The groups will include poor smallholders, pastoralists, artisans, fishing communities, landless people, indigenous communities, migrants and the urban informal sector."¹⁶ Agenda 21 also says that governments should also adopt a "community-driven approach"¹⁷ to sustainable development, one that respects the cultural integrity and the rights of ethnic peoples, and gives local communities a large role in managing and protecting natural resources.¹⁸

One important requirement of Agenda 21 is that governments should fully include "major groups" in decisions about sustainable development. "Major groups" include business, farmers, youth, indigenous peoples, local authorities, unions, NGOs, women, and the scientific community. In its reports to the United Nations about its progress on Agenda 21, the Burmese government presents its work raising public

¹⁴ "Constitution of the Republic of the Union of Myanmar," ed. Government of Myanmar (Naypyidaw: 2008). Page 10.

¹⁵ Burma's past reports can be found here:
http://www.un.org/esa/dsd/dsd_aofw_ni/ni_natiinfo_myanmar.shtml

¹⁶ "Agenda 21: The United Nations Programme of Action from Rio," (Rio de Janeiro: United Nations, 1992). Section I, chapter 3.5.

¹⁷ Ibid. Section I, chapter 3.7.

¹⁸ Ibid.

awareness about sustainable development, and the occasional public meetings it holds and surveys it conducts, as evidence that the government is involving these major groups in sustainable development decisions.¹⁹ However, this is not enough to meet the requirements of Agenda 21, as most of these activities exist either to educate the public or to give the government information about the lives and conditions of people in Burma, but does not ask for their opinions. Also, certain major groups are largely excluded, as few activities are aimed specifically at women or at ethnic groups.

In June 2012, representatives of the countries that signed Agenda 21, along with representatives of NGOs and local communities, will meet to review the progress that has been made so far on Agenda 21, and to discuss whether new commitments should be introduced. This meeting is known as Rio +20.

Guidelines for Assessing the Results of Rio +20

- *Process:* Apart from governments, did other groups (such as NGOs or local – especially indigenous or ethnic – communities, and, in particular, women within these communities) have a say in creating the new agreement? Will these groups have a role in deciding how their governments should meet any new commitments, or in putting in place, monitoring, or evaluating programmes to meet Agenda 21 commitments?
- *Existing commitments:* Was anything decided about countries that have so far failed, or struggled, to meet their Agenda 21 commitments?
- *New commitments:* Did governments agree to any new commitments? If so, do these include commitments on any new topics (like migration and climate security)? Are these new commitments strong enough to address the problems around sustainable development? Are any commitments binding?

What is Burma's National Sustainable Development Strategy?

Agenda 21 states that governments should develop national strategies for sustainable development. Burma created its National Sustainable Development Strategy (NSDS) in 2009, with help from the United Nations Environment Programme. The Burmese government describes the goals of the NSDS as “sustainable management of natural resources; integrated economic development; and sustainable social development”.

The NSDS contains *programmes* for:

- making food systems more sustainable;
- improving industrial production methods to make them more sustainable;
- growing eco-tourism (which includes preserving the environment and maintaining cultural integrity);
- supporting research into sustainable development, and building better institutions to manage sustainable development; and
- conducting public sustainable development education and participation.

¹⁹ "Natural Aspects of Sustainable Development in Myanmar," United Nations Department of Economic and Social Affairs, Division for Sustainable Development, <http://www.un.org/esa/agenda21/natlinfo/countr/myanmar/natur.htm>.

The NSDS also sets out *guidelines* for:

- making industrial and agricultural production more efficient by producing less waste and using less energy and fewer materials;
- promoting recycling;
- promoting the use of new and renewable sources of energy;
- using environmentally sound technologies (often called green technology) for sustainable production; and
- reducing wasteful consumption (which includes increasing people's awareness of sustainable consumption).²⁰

The National Environmental Performance Assessment

In 2006, the Burmese government published a national Environmental Performance Assessment (EPA), written with the help of several international organisations, including the Asian Development Bank, the United Nations Environmental Programme, the Institute of Global Environmental Strategies, and the National Institute for Environmental Studies of Japan. The national EPA looks at Burma's status and the government's track record on seven environmental issues.²¹ Chapter 3 of this publication will cover the findings and recommendations of the EPA in depth.

Environmental Impact Assessments and Free, Prior, and Informed Consent

An Environmental Impact Assessment (EIA) is a study of the effect that a proposed project will have on the local environment. Most Southeast Asian governments require EIAs for new development projects; Burma's government does not. However, Burma has promised in its National Sustainable Development Strategy to introduce EIAs by 2014.

The purpose of an EIA is to give everyone who has a stake in a project, or who will be affected by it, information about the environmental impact of the project, so that project stakeholders can collectively make a fully informed decision about whether and how to go ahead with the project.

The Burmese government has stated that "Environmental Impact Assessment (EIA) is an important mechanism for the integration of environment and development,"²² and that, "Myanmar currently has no formal requirements for Environmental Impact Assessments (EIA). EIAs are conducted, however, on an *ad hoc* basis for projects funded by international organizations and some foreign corporations. Under the

²⁰ "National Sustainable Development Strategy for Myanmar."

²¹ "Myanmar National Environmental Performance Assessment Report," ed. Ministry of Environmental Conservation and Forestry National Commission for Environmental Affairs, Myanmar, and United Nations Environment Programme Regional Resources Centre for Asia and the Pacific (Bangkok: GMS Environment Operations Centre, 2006).

²² Ministry of Environmental Conservation and Forestry National Commission for Environmental Affairs, Myanmar, "Fourth National Report to the United Nations Convention on Biological Diversity," (National Commission for Environmental Affairs, Ministry of Environmental Conservation and Forestry, Myanmar, 2009).

present scheme of things, [the government] does not possess the authority to require the commissioning of EIAs.”²³

As will be seen in the case of the Yadana pipeline, discussed in Chapter 4, not all EIAs carried out by foreign companies and donors provide adequate information, nor are they all shared adequately and transparently with all stakeholders.²⁴ Currently, if an EIA is carried out on a project in Burma, companies and governments are not required to make the EIA publicly available.

What makes an EIA adequate?

At minimum, EIAs should:

- Be carried out *before* a decision is made about whether to go ahead with the development project, and before work on the project begins;
- Describe the project and the environment of the project site in detail;
- Examine the potential environmental and social impacts of the project;
- Look at the potential impacts if the project is carried out at a different site, or in a different way;
- Look at the potential impact of not going ahead with a project at all;
- Examine different ways to mitigate the impact of the project;
- Identify gaps in the project developers’ knowledge; and
- Give people who will be affected by the project the opportunity to contribute to the EIA, and to review the information in the EIA before a decision is made (meaning that the EIA should be made publicly available). This is part of project stakeholders’ right to Free, Prior, and Informed Consent (FPIC).

Free, Prior, and Informed Consent (FPIC)

That means that the project’s developers have to ask stakeholders *before* the project begins; that stakeholders must be given all the *information* they need about the project and its effects to make a good decision, and this information must be true; and that stakeholders must be truly *free* to decide and say what they really think about the project, without anyone telling them what to say or punishing them for their choice.²⁵

²³ Win Myo Thu, "National Biodiversity Strategic Action Plan Myanmar," (Naypyidaw: Division of Nature and Wildlife Conservation, Forest Department, 2011). Page 48.

²⁴ A recent example of a relevant EIA is the 2010 Myitsone Dam EIA (available at: <http://www.burmalibrary.org/docs12/EIA-CPI-1-2.pdf>).

²⁵ Oxfam, "Guide to Free, Prior, and Informed Consent," (Carlton: Oxfam, 2010).

Key Sources of Funding for Development Projects

Funding from Other Countries

Foreign governments often have a strong influence on the way development is conducted. A number of development projects in Burma are carried out by foreign companies, or with funding or assistance from neighbouring governments. Often, the development project's aim is to supply products like timber or gas to a neighbouring country.

Generally, projects carried out in Burma only have to meet Burmese land and environmental laws and standards – even when funded by foreign companies or governments. Some funding governments have laws about the way companies can conduct projects in other countries: for example, that projects must meet the standards and laws of the funding country. Some countries, including Thailand and China, do not.

Funding from International Banks

The Asian Development Bank

The Asian Development Bank (ADB) lends money to Asian governments to finance development projects. The Bank does not currently fund any projects in Burma, but it does monitor political developments there. Due to recent political developments, the ADB may be more willing to fund projects in Burma, depending on whether it believes that enough political reform has taken place, and whether arrangements can be made to pay back the US\$489 million that Burma owes the ADB.²⁶ The ADB also funds projects in Southeast Asia, such as highways and dams, that can have an indirect effect on Burma.

The Asian Development Bank will not fund projects that do not conduct an Environmental Impact Assessment (EIA) if they are likely to have environmental impacts. The EIA must be published and made accessible to the people who will be affected by the project. The project must include an environmental management plan to avoid environmental damage, or to lessen or compensate for the damage that cannot be avoided. The environmental management plan must also be made publicly available. Governments must consult in a “meaningful” way with the people who will be affected by the project. This means that the affected people must be involved early in the consultation process, and they must be provided with enough information about the project. The views of the people affected by the project must be understood by decision-makers, and must be taken into account. Women must be included in the consultation. The project developers must continue to consult with the people affected throughout the project, and there must be a mechanism provided for people to voice any problems they have with the project, and to have those problems resolved. The effectiveness of the environmental management plan must be monitored, and the results made public.²⁷

²⁶ Patrick Barta, "Too Bad, Burma: Big Bank Loans Unlikely Anytime Soon," *The Wall Street Journal* (2012), <http://blogs.wsj.com/searealtime/2012/02/09/too-bad-burma-big-bank-loans-unlikely-anytime-soon/>.

²⁷ Asian Development Bank, "Safeguard Policy Statement," in *ADB Policy Papers* (Asian Development Bank, 2009).

Where indigenous or ethnic communities are affected by a project, the consultation and the proposed solutions have to be sensitive to the needs of these communities and take the approaches that these communities prefer into account. The way indigenous or ethnic communities receive benefits from projects, and the grievance procedure provided for these communities, must be gender-sensitive and culturally appropriate. A plan for how to consult ethnic communities, and to share the project's benefits with those communities and mitigate any damages the project causes, must be made available to the people affected by the project; this plan should include the grievance procedure and measures for monitoring impacts.²⁸

The ADB also has specific policies that apply to certain issues, such as land use, in the development projects it funds, and those policies will be discussed in the relevant sections of Chapter 3. If the ADB starts funding projects again in Burma, all ADB policies discussed in this resource will apply to projects receiving bank funds.

However, the ADB has been criticised for sometimes failing to follow or enforce its own policies for international development projects. For example, when the ADB funded the construction of the Nam Leuk Dam in Laos in 2000, the project created serious environmental damage and left many local communities without a reliable water supply. Fish stocks in the Nam Leuk and Nam Xan rivers fell more than 50%, and local fishing communities were not compensated for the loss of their livelihoods, which goes against the ADB's policies.²⁹ It was only in 2007, after extensive campaigning by International Rivers and other organisations, that the ADB eventually took some steps to ensure that the project compensated local people.³⁰

The World Bank

Like the Asian Development Bank, the World Bank lends money to governments for development projects. The World Bank has a policy of not lending money to Burma, because of the actions of the military regime; however, as with the Asian Development Bank, this may change in the future, depending on the actions of Burma's government and on whether arrangements can be made to clear Burma's substantial debt to the World Bank.³¹ The World Bank is now monitoring politics in Burma to see if conditions change enough for the Bank to start lending to the Burmese government again. The United States, which is the main donor to the World Bank and therefore has much power over its policies, has recently lifted its ban on the World Bank carrying out assessments within Burma and relaxed its own trade sanctions, so this may lead to the World Bank choosing to fund projects in Burma in the near future.³²

²⁸ Ibid.

²⁹ Susanne Wong, "World Bank, Adb Appeal for Blind Faith While Turning Back on Problems with Lao Dams," (2004), <http://www.internationalrivers.org/southeast-asia/laos/nam-leuk/world-bank-adb-appeal-blind-faith-while-turning-back-problems-lao-dams>.

³⁰ Aviva Imhof, 2008.

³¹ Barta, "Too Bad, Burma: Big Bank Loans Unlikely Anytime Soon."

³² Steven Lee Myers, "Clinton Says U.S. Will Relax Some Restrictions on Myanmar," *The New York Times*, 1 December 2011.

Whenever a project the World Bank is funding affects local indigenous peoples or ethnic communities, the Bank requires that the project conduct free, prior, and informed consultation among the ethnic peoples affected. The consultation has to include both men and women, as well as people of different ages. This consultation has to lead to “broad community support” among the peoples affected before the project can go ahead. Once the project is approved, it has to include ways to avoid or limit harm to local ethnic peoples. Any benefits these ethnic communities get from the project should make sense for those cultures, and should be fairly divided between men and women, and among generations.³³

The World Bank also has specific policies that apply to certain issues, such as land use, in the development projects it funds, and those policies will be discussed in the relevant sections of Chapter 3. If the World Bank starts funding projects again in Burma, all World Bank policies discussed in this booklet will apply to projects receiving bank funds.

However, like the Asian Development Bank, the World Bank has been criticised for funding projects that violate its policies. For example, in 2011, an association representing local fishing communities in Gujarat State, India brought an official complaint against the World-Bank-funded Tata Mundra power plant. These local communities say the plant would displace them from their homes, pollute the air and water, and destroy wildlife habitats, making it impossible for these communities to maintain their livelihoods. The communities claim that the project developers did not do enough to assess the impact of the plant, or to lessen its negative effects.³⁴

Best Practice in Development Funding

It is now widely agreed that international financial institutions, governments, and businesses should take steps to ensure that any development projects they fund are carried out sustainably, and that their investments in other countries do not lead to environmental damage or human rights violations. Best practice principles for development funding can be found in the United Nations’ 2011 “Protect, Respect, and Remedy Framework”³⁵ for businesses investing in other countries, and in the Equator Principles of 2003³⁶, a set of investment rules agreed to by a number of international financial institutions. Following the principles found in these documents, funders:

- should examine the possible direct and indirect negative environmental and social effects of a development project before deciding to fund that project, and should find ways to lessen these negative effects. Both the assessment of possible negative effects and the action plan for dealing with those effects should both be available to stakeholders.

³³ "Indigenous Peoples," in *OP 4.10*, ed. World Bank (2005).

³⁴ *India / Tata Ultra Mega-01/Mundra and Anjar*, (2011).

³⁵ United Nations Human Rights Council, "Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, John Ruggie: Guiding Principles on Business and Human Rights - Implementing the United Nations “Protect, Respect and Remedy” Framework," (New York: United Nations, 2011).

³⁶ "The Equator Principles," ed. Equator Principles Association (2003).

- should assess the government of the country where the project would be located, and should decide whether it would be ethical to support the government through development funding, based on the government's environmental and human rights record.
- should consult extensively with local communities and other stakeholders, both while the funder decides whether to go ahead with the project and during the project itself.
- should monitor the impacts of the project.

Chapter II: Climate Change and Sustainable Development

Climate change affects the environment and people's lives. Sustainable development needs to help people deal with the increasingly common challenges of a changing climate. This chapter defines climate change, looks at its impacts, and explains the international agreements that relate to climate change in Burma, as well as possible sources of funding to help Burma deal with the impacts of climate change.

What Is Climate Change?

The air around us is made up of a number of different gases. Some of these are known as *greenhouse gases*. You can think about greenhouse gases this way: if you lie in the sun under a thick blanket, you will feel warmer than if you did not have the blanket. This is because the blanket traps the heat from the sun. In the same way, greenhouse gases trap the heat from the sun and keep it close to the Earth's surface, raising the temperature of the Earth.

It is necessary to have some greenhouse gases in order to trap and hold onto the sun's heat, or the Earth would be too cold for humans to live on it. A low level of greenhouse gases is constantly released and reabsorbed as part of natural cycles. However, human activities in the last few centuries have begun to release a much higher volume of greenhouse gases than Earth's natural systems can absorb. As a result, the Earth has begun to heat up too much.

Human actions that release greenhouse gases include:

- Burning *fossil fuels* like oil, petrol, coal, diesel, and natural gas. This means that greenhouse gases enter the atmosphere when people drive cars and motorbikes, use oil lamps or gas cookstoves, and burn oil, gas, or coal to create electricity. Some fertilizers also contain fossil fuels, and can give off greenhouse gases.
- Burning wood or other kinds of plants for fuel (although some forms of plant fuel give out higher amounts of greenhouse gases, while others give out much lower amounts).
- Destroying forests. Trees and plants soak up carbon dioxide, which is a very long-lasting greenhouse gas, from the atmosphere as they grow. When a tree is cut down, it can no longer soak up carbon dioxide. If the tree is then burned or left to rot, the carbon dioxide it has taken in during its lifetime is released back into the atmosphere.
- Changing how land is used. Other natural areas, apart from forests, can also store carbon dioxide in their plants and soil. Draining wetlands or clearing wild areas in order to plant crops or put up buildings can release greenhouse gases from the soil and from the plants that are removed. Creating dam reservoirs, especially by flooding forest land, can both take away a land's ability to store greenhouse gases and release the greenhouse gases stored in the trees and plants as they decay.

Climates vary around the world. They also vary within countries, states, and even local areas. Every climate is the result of interactions among a number of different systems, some natural, others created by humans. These interactions are very complicated. Changes in one system can have a direct or an indirect effect on other systems, and on the climate, even if the connections between the systems are not obvious. These effects can be instant, or they can take thousands or even millions of years to appear. Climates are always slowly changing over time.

However, the atmosphere heating up has serious effects on the world's climates. Currently, climates are changing much faster than they have in the past. These changes are altering weather patterns, making the weather more unpredictable and natural disasters more severe. This is happening at all levels: global, regional, and local.³⁷

In the past, local people and local environments in Burma usually had thousands of years to adapt and deal with these changes. Natural disasters were also rarer, meaning that people had more time to recover from them. Now, people in Burma have to cope with increasingly rapid change and with more frequent and severe extreme weather events³⁸. Unsustainable development, like clear-cutting forests, building in flood plains, and degrading the soil and the natural environment, makes people in Burma very vulnerable to the effects of the changing climate, and makes natural disasters more likely to be human disasters, as well.

For example, in 2008, Cyclone Nargis killed at least 85,000 people in Burma. It also destroyed 700,000 homes, destroyed much of the rice crop for that year, and killed three-quarters of the country's livestock.³⁹

Some examples of challenges linked to climate change that Burma is now seeing and can expect to see in the future include flooding, drought, heat waves, and growing season changes.

Flooding

In many parts of Burma, climate change is linked to heavier rains and rising sea levels. The rising sea level also means that salt water more frequently seeps into freshwater supplies on land. This can damage or destroy crops, kill mangrove trees and other wild plants,⁴⁰ and contaminate freshwater fisheries, killing fish or damaging their habitats. In many areas of Burma, farmers already need to plant special salt-tolerant varieties of rice or wash the soil out with irrigation water or rainwater to remove the extra salt.⁴¹

³⁷ Rajendra Pachauri and R. Reisinger, "Ipcc Fourth Assessment Report: Climate Change 2007," (Geneva: Intergovernmental Panel on Climate Change, 2007).

³⁸ Ibid.

³⁹ "Cyclone Nargis," *The New York Times*, 30 April 2009.

⁴⁰ "The Impact of Climate Change on the Development Prospects of the Least Developed Countries and Small Island Developing States," (New York: Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries, and Small Island Developing States, 2009).

⁴¹ "Natural Aspects of Sustainable Development in Myanmar."

Flooding also happens due to natural disasters, like Cyclone Nargis which caused long-lasting damage to paddy fields in much of the country by flooding them with salt water. Even now, the area affected by Cyclone Nargis is only producing a little over half as much rice as it did before the cyclone hit. Three years after the cyclone, many people are still struggling: they live in inadequate shelters and must borrow money to buy farming supplies and to restore their damaged land. Many of these people have ended up in debt.⁴²

The Burmese government does not have a set target for flood protection.⁴³ Some international NGOs have blamed the high death toll from Cyclone Nargis on the Burmese government's failure to set up protective measures.⁴⁴

Drought

Climate change worsens droughts: it can make droughts longer, more frequent, and more severe. Droughts limit the amount of water available for people and animals to drink and to use in their everyday lives. A drought can also kill crops.

In 2010, there were serious droughts in many parts of Burma. Residents of Irrawaddy Division reported that buffalo and other animals did not have water to drink, and that villagers queued up for hours to scrape a little water from the bottom of the local well. The drought also caused other problems: In Bago Division, many villages had to cope with high numbers of sick people, as the villagers had to drink untreated water because clean water was not available.⁴⁵ Similar, though less widespread, droughts occurred in central Burma in 2011, leaving many villages without water. New wells had to be dug, which frequently required more money and more people than the villages could provide, and even where it was possible to construct new wells, the drought meant that the wells did not provide enough water for the villages.⁴⁶

Heat Waves

As temperatures on Earth rise, the weather is becoming more extreme, with colder cool seasons and more severe hot seasons. According to the Intergovernmental Panel on Climate Change (IPCC) – the international group of scientific experts whose research the UN uses as a basis for international climate negotiations – the average temperature in Southeast Asia has been rising slowly but steadily for at least the past fifty years.⁴⁷ There is evidence that the average temperature within Burma is also rising.⁴⁸

⁴² Lasse Norgaard and Si Thu, "Aid Worker Diaries: Helping People Back to Their Fields in Myanmar," *Alertnet*, 4 May 2011.

⁴³ Aquastat, "Myanmar," Food and Agriculture Organisation of the United Nations, <http://www.fao.org/nr/water/aquastat/countries/myanmar/index.stm>.

⁴⁴ Wai Moe, "Burma Taking Severe Hit from Climate Change: Watchdog," *The Irrawaddy*, 9 December 2009.

⁴⁵ Min Lwin, "Water Shortages Sweeping Burma," *Democratic Voice of Burma*, 10 May 2010.

⁴⁶ Yan Naing, "Water Shortages Hit Central Burma," *The Irrawaddy*, 11 May 2011.

⁴⁷ Pachauri and Reisinger, "Ipcc Fourth Assessment Report: Climate Change 2007."

⁴⁸ Than Myint and San Hla Thaw, "Climate Change Adaptation in Myanmar," in *Asian University Network of Environment and Disaster Risk Management* (New Delhi: 2009).

During the hot season in 2010, Burma experienced a heat wave that lasted almost two months. The temperatures were higher than they had been in more than forty years, frequently reaching up to 47°C (more than 8°C higher than average for that time of year). Over just two weeks in mid-May, 230 people died of heatstroke in the city of Mandalay alone.⁴⁹ In Rangoon, the heat got so bad that residents were forced to manage water as if it were oil.⁵⁰ The IPCC predicts that temperatures in Burma will continue to rise, meaning that temperatures now considered extreme will become frequent; heatwaves are also expected to happen more often and to be more severe.⁵¹

Growing Season Changes

In many countries, climate change means that the hot and cold seasons are beginning earlier or later than normal. The rains may also begin early, or they may arrive late or not at all. Different regions experience different changes, but the same country may also see different changes in different years. One year, there may be early rains, and the next year, the rains may come very late.⁵²

All of these changes make it difficult for people to decide when to plant and harvest crops. If the weather changes too early or too late, or the rains come at an unexpected time, the crop may fail.

Farmers in Burma have developed local farming practices, knowledge, and crops based on the long-term challenges of their local climates and environments. However, in Burma, the rainy season has been getting shorter, on average, since about the 1980s, and this change has been happening more quickly in the last 15 years.⁵³ In Karen State, for example, irregular weather patterns, especially wet seasons with too little rain, have caused crops to fail more and more frequently over the past twenty years, which has worsened poverty in rural areas.⁵⁴

Also, as a local climate changes, it may become less suitable for the crops that are traditionally grown by farmers in that area, including staple crops like rice. Harvests could be up to 30% smaller than in the past⁵⁵, which will make it even more difficult for farmers to feed their families and meet the government's growing quotas.

International Agreements

The United Nations and the Kyoto Protocol

In 1997, most countries in the world adopted an agreement called the Kyoto Protocol through the United Nations. Under the Protocol, 37 developed countries made a commitment to reduce their greenhouse gas emissions. A second group of countries

⁴⁹ "Heat Wave - Asia - Burma," UB Alert Disaster Alert Network, <http://www.ubalert.com/a/17653>.

⁵⁰ Aye Nai, "Scores Die in Relentless Heatwave," *Democratic Voice of Burma*, 17 May 2010.

⁵¹ Pachauri and Reisinger, "Ipcc Fourth Assessment Report: Climate Change 2007."

⁵² Ibid.

⁵³ Myint and Thaw, "Climate Change Adaptation in Myanmar."

⁵⁴ "Rural Development Priorities (Rdp) Plan - Baseline Information," (Chiang Mai: Karen Environmental and Social Action Network, 2012).

⁵⁵ "Adapting to Climate Change: What's Needed in Poor Countries, and Who Should Pay," in *Oxfam Briefing Papers* (Washington, D.C.: Oxfam International, 2007).

also agreed to the Protocol. These were developing countries and were not the countries responsible for most of the world's past greenhouse gas emissions. This second group of countries, which includes Burma, did not make a commitment to reduce their emissions.

The Protocol established the United Nations Framework Convention on Climate Change, or UNFCCC, which is the organisation in charge of the ongoing negotiations among the countries that have signed up to the Kyoto Protocol.⁵⁶

While Burma has not set a target for reducing its emissions, it has agreed to the following goals under the UNFCCC (according to Burma's 2006 national Environmental Performance Assessment):

- Measuring the greenhouse gases emitted in Burma every year, and also measuring how much of these greenhouse gases are absorbed by Burma's forests and other *carbon sinks* (natural areas that absorb carbon dioxide and other greenhouse gases);
- Coming up with national programmes to reduce the greenhouse gases Burma emits (or to increase the amount of these gases that Burma's carbon sinks absorb), putting these programmes into action, and publishing information about the programmes;
- Helping to develop and apply technologies and practices for reducing greenhouse gas emissions, and helping to transfer these technologies and practices to countries and communities that need them;
- Managing forests in a sustainable way, so that they continue to work as carbon sinks, and also working to improve the forests so that they can absorb more greenhouse gas;
- Helping to develop ways to adapt to the potential effects of climate change (like the effects described in the sections above);
- Making sure that social, economic, and environmental laws and policies take climate change into account;
- Helping with research into the effects of climate change and how to reduce those effects, and sharing scientific, social, economic, and legal information about Burma that relates to climate change; and
- Making people aware of climate change through public campaigns, and offering education and training on climate change.

Burma is required to report to the UNFCCC about its greenhouse gas emissions and its progress in meeting the commitments above.

Burma has already sent the UNFCCC a *baseline inventory* of greenhouse gas emissions, which is a measurement of all greenhouse gas emissions in Burma in a single year, so that the government can see whether emissions in later years are better or worse.⁵⁷ According to government figures reported in the national Environmental Performance Assessment (EPA), emissions are expected to rise dramatically, almost doubling by 2020 from 1990 levels. The EPA says that the central way for Burma to

⁵⁶ United Nations Framework Convention on Climate Change, "Kyoto Protocol," http://unfccc.int/kyoto_protocol/items/2830.php.

⁵⁷ "Myanmar National Environmental Performance Assessment Report."

develop without its greenhouse gas emissions rising is by creating more efficient industrial processes, but this ignores the fact that agriculture and forestry are much bigger sources of emissions. The government is currently measuring emissions from different sectors in order to give an updated report to the UNFCCC.⁵⁸

The 2006 EPA rates Burma's progress towards meeting its UNFCCC goals as poor (one out of a possible three). The EPA recommends that in order "to comply with UNFCCC provisions, a national communication committee should be set up within appropriate agencies. National communication reports should be prepared and submitted to UNFCCC sooner. National adaptation program should be formulated."⁵⁹ The EPA adds that these actions should be seen, not primarily as ways to meet Burma's UNFCCC obligations, but as ways to improve domestic environmental management.⁶⁰

Agenda 21 – Climate Change

Agenda 21 states that governments should strengthen early warning systems and spread awareness about disaster risks through public campaigns. The agreement also calls on governments to study which parts of their countries are most vulnerable to climate change, and to put in place measures to make development more disaster-sensitive, including raising awareness; regulating where and how settlements can be built (if this is necessary, and if it can be done without punishing owners, or in such a way that the owners receive compensation for the limits placed on their development options); and planning for reconstruction after a disaster.⁶¹

Funding Climate Change Adaptation

The United Nations has made funding available for countries to adapt to the effects of climate change – that is, to put measures in place to make the country less vulnerable to impacts like those described above (floods, droughts, heat waves, changed growing seasons, and others). For some of this funding, the UN has requirements that mean the governments receiving the funding must take the rights and needs of certain communities – often ethnic communities – into account when they carry out these adaptation projects. The Burmese government has access to some of these funds, including the Least Developed Countries (LDC) fund, the Adaptation Fund, and the Global Environment Facility Trust Fund.

Burma received funding from the LDC Fund in 2008 to help the government prepare a plan for adapting to the effects of climate change, called a National Adaptation Programme of Action (NAPA)⁶², and to help make certain preparations for putting the NAPA into practice. These preparations include measuring Burma's greenhouse gas emissions, assessing how vulnerable Burma is to climate change, making plans to

⁵⁸ Ministry of Environmental Conservation and Forestry National Commission for Environmental Affairs, Myanmar, "Introduction," <http://www.myanmar-unfccc-nc.net/index.php>.

⁵⁹ "Myanmar National Environmental Performance Assessment Report." Page 73.

⁶⁰ Ibid.

⁶¹ "Agenda 21: The United Nations Programme of Action from Rio."

⁶² "Myanmar - Preparation of a National Adaptation Programme of Action," Global Environment Facility, <http://gefonline.org/projectDetailsSQL.cfm?projID=3702>.

transfer green technologies from other countries to Burma, and educating the Burmese public about climate change.⁶³

Burma submitted a project proposal to the Adaptation Fund in 2011.⁶⁴ This fund is available for those countries most vulnerable to the effects of climate change. The Adaptation Fund requires the projects it finances to provide social, economic, and environmental benefits “with particular reference to the most vulnerable communities”.⁶⁵ The proposed project would take place in Burma’s Dry Zone.⁶⁶

The Global Environment Facility Trust Fund, another fund supplied under the United Nations, gave the Burmese government funding in 2008 to develop Burma’s National Biodiversity Strategic Action Plan.⁶⁷

⁶³ Ei Ei Toe Lwin, "Report on Effects of Climate Change Nearing Completion," *The Myanmar Times*, 2 January 2011.

⁶⁴ Project and Programme Review Committee Adaptation Fund Board, "Proposal for Myanmar," in *Seventh Meeting of the Project and Programme Review Committee of the Adaptation Fund* (Durban, South Africa: 2011).

⁶⁵ Adaptation Fund Board, "Operational Policies and Guidelines for Parties to Access Resources from the Adaptation Fund," (Adaptation Fund).

⁶⁶ ———, "Proposal for Myanmar."

⁶⁷ "Myanmar - Development of the National Biodiversity Strategy and Action Plan," Global Environment Facility, <http://gefonline.org/projectDetailsSQL.cfm?projID=3407>.

Chapter III: Sustainable Development – Topics and Challenges

There are many aspects of the natural world and of people's lives that are related to sustainable development. Aspects include biodiversity (variety in the natural environment), land (including mining), forests, agriculture, water, energy, and the economy. Climate change can hurt efforts to achieve sustainable development in each aspect.

Each section below first explains why a particular aspect (for example, land) is important for sustainable development. The section then looks at the international agreements and national laws that Burma's government is supposed to follow regarding that aspect of sustainable development. Finally, each section looks at institutions that fund or could fund development projects in Burma, and the specific sustainable development rules these institutions have relating to that particular aspect.

Biodiversity

This section looks at the issues around biodiversity and sustainable development. It explains the Burmese laws and ministries that deal with biodiversity, and discusses the influence that international agreements, organisations, and funding could have on Burma's biodiversity policies.

What is biodiversity, and why is it important to sustainable development?

Biodiversity means the variety of species of plants and animals, and the variety of *ecosystems* (networks of interaction among different species) in a particular place. Biodiversity is an essential part of sustainable development, as development projects can damage or take over the places where plant and animal species have thrived in the past, and reduce the numbers of these species, or even wipe out some species completely. An area does not have to be cleared or built up for development to affect biodiversity there. The overall destruction of a habitat damages biodiversity, but over-use of natural resources in an area (including through shifting agriculture in sensitive areas) and pollution are also damaging to biodiversity. Climate change also can damage biodiversity, as not all species are able to survive drastic changes in their living conditions.

Traditional livelihoods usually preserve biodiversity, but many areas of Burma where local biodiversity has been managed well in the past are now under pressure because of a huge internally displaced population needing a place to live and food to eat. Such pressures often lead local communities to over-use resources, and to cultivate more fragile, less fertile areas.⁶⁸

Biodiversity is important, not just to the environment, but to humans, as well: A wide variety of plant and animal species mean that humans can take advantage of a large range of crops and animals for food, medicine, and other resources. Areas rich in

⁶⁸ Thu, "National Biodiversity Strategic Action Plan Myanmar."

biodiversity are also less vulnerable to disease and pests than areas with one or two types of crops.⁶⁹

Burma lies within one of the most biologically diverse and the most environmentally threatened areas in the world.⁷⁰

What is the law in Burma about sustainable development and biodiversity?

The Man and Biosphere Programme

The Man and Biosphere Programme, created in 1970 and operated by the United Nations Educational, Scientific and Cultural Organization (UNESCO), aims to develop ways to use biological diversity sustainably, and to improve the relationship between people and their environment. A system of project areas, called biosphere reserves, host sustainable natural resource use pilot projects. Burma has established a National Man and Biosphere Committee, but it has yet to designate any biosphere reserves.⁷¹

The Convention on Biodiversity

The Convention on Biodiversity, which has been in place since 1993, is a legally binding international agreement on protecting biodiversity.

Burma's Obligations

The Convention requires governments to identify and measure the species and ecosystems that need to be conserved; to establish protected areas; to restore degraded ecosystems; to preserve and respect traditional knowledge; to control alien species and the risks of biotechnology; to carry out public education on biodiversity; and to encourage public participation, especially in assessing the risks of development projects to biodiversity. Governments must also report on their progress on these tasks.⁷²

The government admits that most of its obligations have not yet been met. It has made some progress towards its commitment to convert 10% of its land into protected areas by 2010⁷³ (a commitment that is also mentioned in the National Sustainable Development Strategy)⁷⁴, but has not reached that goal. Currently, only 5.6% of Burma's land is covered under the Protected Areas System, and the status of many important wetlands and marine areas is not adequately dealt with. The government says that the lack of funding and technical support, from either Burmese or international sources, is seriously holding back the creation and management of protected areas. The government also says there has been extensive exploitation of certain protected areas, like the mangrove ecosystem of the Meinmahla Wildlife Sanctuary (which has been exploited to the point that it no longer works as a useful

⁶⁹ Jeremy Cherfas, "Agricultural Biodiversity - a Key to the Food Security Puzzle," (2010), <http://go.worldbank.org/8L9LV9Q3M0>.

⁷⁰ Thu, "National Biodiversity Strategic Action Plan Myanmar."

⁷¹ Ibid.

⁷² "Convention on Biological Diversity," ed. United Nations (1992).

⁷³ National Commission for Environmental Affairs, "Fourth National Report to the United Nations Convention on Biological Diversity."

⁷⁴ "National Sustainable Development Strategy for Myanmar."

ecosystem for threatened species), as well as natural damage to some areas from Cyclone Nargis.⁷⁵

Agenda 21 and the National Sustainable Development Strategy – Biodiversity

On the topic of biodiversity, Agenda 21 says that governments should:

- Develop or strengthen policies for conserving biodiversity and using plants and animals sustainably, and for creating and managing protected areas where they are needed;
- Restore damaged ecosystems, and help threatened and endangered species recover;
- Make sure that the principle of conserving biodiversity shapes policies for other sectors (including water management, agriculture, and fishing);
- Study the country's plants, animals, and ecosystems, and figure out which are the most vulnerable and the most important to protect;
- Study the importance of biodiversity for the local environment and for people's livelihoods and lifestyles (a study that should include the widest participation possible, especially of indigenous and ethnic communities, including women within those communities);
- Take economic and social steps to promote traditional agriculture, forestry, and wildlife management that help to conserve biodiversity;
- Respect, protect, and promote the wider use of the knowledge and practices of ethnic and local communities for the sustainable use of biodiversity; share the benefits of these practices fairly and equitably; and involve ethnic and local communities (including women) in conserving and managing ecosystems;
- Introduce Environmental Impact Assessments for development projects that are likely to have a significant impact on biodiversity, and allow for public participation in these EIAs; and
- Educate the public about the value of biodiversity.⁷⁶

Myanmar Agenda 21 and the National Sustainable Development Strategy both state that Burma's system of protected areas needs to be expanded to cover more places, types of ecosystems, and species of plants and animals, and that the rules concerning protected areas should be strengthened. By the time the NSDS was published in 2009, only 20 of 34 protected areas – those under the control of the Forest Department's Nature and Wildlife Conservation Division – were being managed well; the others were under state or divisional control, and were being managed poorly.⁷⁷

⁷⁵ Thu, "National Biodiversity Strategic Action Plan Myanmar."

⁷⁶ "Agenda 21: The United Nations Programme of Action from Rio."

⁷⁷ "National Sustainable Development Strategy for Myanmar."

The Wildlife, Wild Plant, and Natural Areas Law 1994

This law allows the Minister of Environmental Conservation and Forestry and the Director-General to determine which species of wild animals and plants are to be protected, either completely, partly, or during particular seasons, and to decide and carry out measures for the preservation of protected wildlife species. However, the Ministry of Environmental Conservation and Forestry has to work with other departments or government organisations, if the species to be protected are under the administration of those departments or organisations. The Director-General (with the Minister's permission) can allow wild animals or plants to be captured or collected for scientific research. Forest officers are allowed to fine people for trespassing in protected areas or disturbing or damaging protected animals or plants; it is also possible to be imprisoned for these crimes. The law also regulates items made from the bodies of animals whose species are now protected (like pieces of clothing or traditional handicrafts). Decisions of forest officers can be appealed to the Director-General, but no further.⁷⁸ However, despite this law, the illegal wildlife trade is still thriving in Burma.⁷⁹

1995 Forest Policy

Burma's 1995 Forest Policy states that 25% of the forestry sector's revenue must go to the Forestry Department for investment in conservation. However, as of 2011 this has not happened. There are also provisions under the Forest Policy for local communities to open licensed botanical gardens, giving areas where biodiversity has been traditionally maintained legal protection. However, none of these botanical gardens have yet opened. The government suggests that the laws allowing communities to open botanical gardens are too unclear.⁸⁰

The Core Environment Programme Biodiversity Conservation Corridors Initiative

The Core Environment Programme Biodiversity Conservation Corridors Initiative is a joint programme among the countries of the Greater Mekong Subregion (Cambodia, China, Lao, Thailand, Viet Nam, and Burma), and is funded by the Asian Development Bank and by the governments of Finland, the Netherlands, Sweden, and China. In the period from 2005 – 2011, the programme piloted approaches and tools for environmental management that preserved biodiversity. One of the key areas identified to be protected includes parts of southern Burma, including Dawei, the site of the new port and industrial centre.⁸¹ However, so far no pilot project sites have been in Burma.⁸²

⁷⁸ "The Protection of Wildlife and Conservation of Natural Areas Law," ed. The State Law and Order Restoration Council (1994).

⁷⁹ Simon Roughneen, "Burma's Gruesome Animal Trade," *The Irrawaddy*, 27 March 2010.

⁸⁰ Thu, "National Biodiversity Strategic Action Plan Myanmar."

⁸¹ "Sub-Regional Conservation Initiatives in the Asean Region," (Core Environment Programme in the Greater Mekong Subregion).

⁸² Huynh Thi Mai, "Greater Mekong Subregion Core Environment Programme and Biodiversity Conservation Corridors Initiative," (Hanoi: Asian Development Bank, 2007).

The next phase, which is slated to run from 2012 – 2016, is intended to formalise and expand the scale of the pilot programmes. This phase is supposed to address the environmental implications of planning and investment decisions in crucial sectors like agriculture, energy, transport, and tourism, and to include measures for mitigating and adapting to climate change.⁸³

The National Environmental Performance Assessment – Biodiversity

The national EPA of 2006 mentions that Burma lost much of its biodiversity throughout the 1980s, and states that the government has responded by expanding protected lands.

The EPA calls on the government to better monitor changes within protected areas. The EPA suggests extending the idea of community management already used in forestry to nature conservation as a whole. It also calls on the government to meet its commitments to the United Nations Convention on Biodiversity by preparing and submitting the national reports that the Convention requires. By 2006, Burma had submitted only one national report, although its third report was due in 2005.⁸⁴

The National Biodiversity Strategic Action Plan – Biodiversity

In order to meet its commitments to the United Nations (especially its commitments under the Convention on Biodiversity), the government of Burma is currently developing a National Biodiversity Strategic Action Plan (NBSAP).⁸⁵ The most recent draft of the NBSAP came out in June of 2011. So far, the opinions of affected ethnic groups have not included in the NBSAP research.⁸⁶

According to the National Biodiversity Strategic Action Plan, unless and until a new national environmental law is enacted, there is no specific law on biodiversity as a whole, though the forest laws and the wildlife law allow for the protection of certain species.⁸⁷ The NBSAP calls the current legal framework “inadequate”.⁸⁸

The NBSAP outlines the actions the government has committed to take in order to meet its obligations under the Convention on Biodiversity. The NBSAP specifically mentions the economic, social, and cultural rights of ethnic communities and disadvantaged groups, stating that “reservations need to be made for securing the right of indigenous and ethnic people for their coexistence with given ecosystem”,⁸⁹. The NBSAP also says that the role of government is to enable a thoughtful process of participation in making decisions about biodiversity; that women need to be able to take a more active role in the management of natural resources; and that equity

⁸³ Asian Development Bank, "Gms Countries Vow Continued Environmental Collaboration," (2011), <http://beta.adb.org/news/cambodia/gms-countries-vow-continued-environmental-collaboration?ref=countries/gms/news>.

⁸⁴ "Myanmar National Environmental Performance Assessment Report."

⁸⁵ National Commission for Environmental Affairs, "Fourth National Report to the United Nations Convention on Biological Diversity."

⁸⁶ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

⁸⁷ Thu, "National Biodiversity Strategic Action Plan Myanmar."

⁸⁸ Ibid. Page 46.

⁸⁹ Ibid. Page 11.

matters when it comes to the sustainable use of resources, so the government should take care to improve the access of the poorest and most disadvantaged people to common resources.⁹⁰

The NBSAP lists eight biodiversity “priority corridors” and three smaller “priority sites” – or areas where investment into protecting biodiversity should be targeted. Together, these areas make up 30% of Burma’s land, but only a little under half of this combined area is protected or proposed for protection in the future.⁹¹

The 2011 draft of the NBSAP lists the following priorities for biodiversity conservation in Burma:

1. Strengthen the conservation of priority sites and corridors. This is to include expanding the area under protection and improving the way these areas are managed, as well as looking into creating stronger laws to protect these areas and trying out other methods of preserving biodiverse regions, apart from turning them into formal protected areas. These methods could include community-led projects, possibly along the lines of community forests.
2. Ensure that biodiversity is taken into account when the government makes decisions on other issues, especially land use and development.
3. Take action to conserve species that are high on the government’s list of priorities - generally those that are important to livelihoods and ecosystems, and threatened. This is to include research, as well as developing a system to monitor illegal wildlife trade.
4. Support the conservation work of NGOs and academic institutions.
5. Monitor the effect of conservation programmes, and coordinate these programmes across government ministries.
6. Expand existing projects that conserve the biodiversity of crops, livestock, and fish species.
7. Set up a national system to maintain biosafety (biosafety means safety from outside biological threats to ecosystems or to human health, like unsafe genetically modified crops, pests, and diseases).
8. Manage invasive species (species that come into an area from the outside, and can out-compete native species for food and other resources).
9. Improve environmental protection laws. This is to include pushing for the enactment of a national environmental conservation law and requiring Environmental Impact Assessments and pollution control.
10. Raise public awareness about conserving biodiversity.

⁹⁰ Ibid.

⁹¹ Ibid. Page 54.

The 2011 draft of the NBSAP commits the government to take the following steps within five years of the final NBSAP passing:

1. Increase protected areas to 10% of the total area of the country, focusing on the most important species and sites. (According to the Convention on Biodiversity and the Burmese government's National Sustainable Development Strategy, this was originally supposed to happen by 2010; however, this goal was not met.)
2. Notify the proposed protected areas as soon as possible.
3. Establish warders' offices at protected areas (with Lampi Marine National Park being the first priority).
4. Promote conservation education programmes.
5. Introduce sustainable management of the buffer zone around protected areas.
6. Strengthen the conservation and research roles of botanic and zoological gardens.
7. Study the status of high-priority species, and the way conservation programmes affect them.
8. Monitor the loss of biodiversity outside protected areas.
9. Strengthen the conservation, management, and sustainable use of biodiversity.
10. Protect and restore damaged habitats having endangered species.
11. Promote local communities' participation in biodiversity conservation.
12. Monitor the ongoing process of the NBSAP and carry it out with the participation of all the stakeholders.
13. Raise environmental awareness and provide the public with access to information on biodiversity issues.
14. Prioritize conserving intact mangrove forests in Lampi Marine National Park and on the islands of the Myeik Archipelago.
15. Promote regional coordination to protect the ASEAN Heritage Parks and Reserves.
16. Participate actively in the ASEAN Working Group on Nature Conservation and Biodiversity, and in the ASEAN Regional Action Plan on Trade in Wild Fauna and Flora.
17. Collaborate with India, China, Thailand and Bangladesh, the CITES signatories, to prevent the illegal trade of forest and wildlife products along the borders.
18. Help local NGOs and academic institutions to develop and carry out conservation projects.
19. Support the inclusion of conservation in basic education.
20. Implement priority needs for mammals, for reptiles and amphibians, for birds, and for plants.
21. Assess and manage invasive species.

22. Study ways to improve the legal system for effective environmental management and biodiversity conservation.

The progress of the NBSAP is to be monitored by future Environmental Performance Assessments.⁹²

Burmese Government Structures Dealing with Biodiversity Issues

- The Ministry of Environmental Conservation and Forestry
- The Ministry of Health
- The Ministry of Livestock and Fisheries
- The National Commission for Environmental Affairs (NCEA)
- The National Environmental Conservation Committee (NECC)

Funding Biodiversity

The World Bank – Biodiversity

The World Bank will not fund projects that destroy or degrade critical habitats, and will only fund projects that destroy or degrade less important habitats if there is no other place these projects could possibly be run. If a World Bank-funded project destroys natural habitats, it must include measures to limit the damage and/or to compensate by creating or protecting a similar habitat nearby. When local communities or local NGOs are affected by World Bank-funded projects involving natural habitats, the Bank expects the government to include these communities and NGOs in planning, carrying out, and monitoring the projects.⁹³

The Asian Development Bank – Biodiversity

The Asian Development Bank will not fund projects in areas of critical habitats, unless there is no damage to the habitat and no reduction in the population of any endangered species, and unless any minor impacts of the project are mitigated. If a project is located inside an area that is legally protected, the government needs to put extra programmes in place to “promote and enhance the conservation aims of the protected area”. Outside of critical habitats and protected areas, the ADB will not fund projects that cause significant degradation of a natural habitat, or convert it to a different use, unless there is no alternative, the benefits of the project outweigh the environmental costs, and the damage is mitigated.⁹⁴

Land

This section looks at the issues around land and sustainable development. It explains the Burmese laws and ministries that deal with land, and discusses the influence that international agreements, organisations, and funding could have on Burma’s land policies.

⁹² Ibid.

⁹³ "Natural Habitats," in *OP 4.04*, ed. World Bank (2001).

⁹⁴ Asian Development Bank, "Safeguard Policy Statement."

Why is land important to sustainable development?

First, conserving land is an important part of making sure that development is *environmentally* sustainable. Land is vulnerable to changes in the climate, and also to destructive, non-sustainable development. Agriculture that is too intensive or that relies heavily on chemicals can deplete the soil. Logging and mining can remove the plants that keep the soil grounded in one place, causing it to erode away.

Second, the question of land is an especially important one when it comes to making sure that development projects are *socially* sustainable – that is, that the projects benefit everyone affected by them, and in particular the most vulnerable local people. Natural resource development projects, such as industrial centres, oil pipelines, and agribusiness, need land. For sustainable development to take place, the people who occupy or use the land must have a say in what happens on that land, because it will affect their lives. Therefore, the question of land rights – who owns the land, and who gets to determine how the land is used – is a crucial question for sustainable development.

What is the law in Burma about land and sustainable development?

Burma has two sets of regulations regarding land rights. *Statutory laws* are the official national laws, put in place by the government, while *customary laws* are the local, traditional systems of allocating land, which are not created by the government. Customary laws have been the traditional system for deciding who owns what land within upland ethnic communities, which means that many families in these communities do not have any land registration titles. Officially, the government of Burma only recognises and uses statutory laws, not customary laws. In practice, statutory laws and customary laws sometimes overlap. Where the two sets of laws come into conflict, the government will not honour customary laws.

Burma's statutory land laws are based on the idea, supported by Burma's 2008 constitution, that the country's land and natural resources belong to the government, and that people and companies can only lease the land from the state.

- The Land Acquisition Act, a law from 1894 that is still in force, allows the government to take over any land, if it pays compensation to the land's owners.
- However, the government also has the right, under the 1953 Land Nationalisation Act, to confiscate fallow land (any land that the government decides is not being used productively) and wasteland (any land without a land title) without paying compensation.
- The 1963 Law Safeguarding Peasant Rights does forbid the government from taking away a farmer's land, but this law is not generally followed.

There have been many cases of the Burmese government confiscating people's lands. Frequently, the land owners receive inadequate compensation or no compensation at all, for their loss. Some of the confiscated land is granted to private companies for industrial-scale agriculture. Land is often confiscated for economic development projects, including gas pipelines, gas and oil drilling, dams, highways, ports, and

industrial centres. The government has also taken over land to use to grow timber or biofuels.⁹⁵

For example, in 2006, the military confiscated a number of plantations along the route of the Site-tway-Rangoon highway, in Ponnagywan Township, Arakan State. The troops only allowed landowners one week to remove their possessions and their crops from their confiscated lands; after that week, anyone caught on the land would be fined 100,000 Kyats. If they were unable to pay, they would be imprisoned in a local military camp and forced to work for the soldiers.⁹⁶

Agenda 21 and the National Sustainable Development Strategy – Land

Agenda 21 states that governments should “promote cost-effective policies or programmes... to encourage environmentally sound land-use practices”⁹⁷; put in place policies to stop people using the land in polluting or unsustainable ways; consider developing practices that will be resilient to changes in the climate; and promote sustainable management and conservation of carbon sinks (natural areas that absorb greenhouse gases from the air). It also suggests that governments “consider strengthening/developing legal frameworks for land management, access to land resources and land ownership”⁹⁸, but this is not required.

Agenda 21 also states that governments should ensure access to land for all households, with particular attention to the needs of ethnic groups and women, and should “establish appropriate forms of land tenure that provide security of tenure for all land-users, especially indigenous people, women, local communities, the low-income urban dwellers and the rural poor”⁹⁹. Overall, Agenda 21 stresses the need for land-management systems to promote environmentally sustainable land use and handle competing needs for land. This should include incorporating “appropriate traditional and indigenous methods” of managing land.¹⁰⁰

When it comes to indigenous and ethnic communities, Agenda 21 says that “some indigenous people and their communities may require... greater control over their lands, self-management of their resources, [and] participation in development decisions affecting them”¹⁰¹.

Under Agenda 21, governments are supposed to develop programmes to solve the “physical, social and economic causes of land degradation”.¹⁰² Agenda 21 says that these causes include systems of land tenure and crop prices that lead to the degradation of the land, which could be said to include policies that require farmers to produce crops in certain quantities, like Burma’s quota system. Governments should

⁹⁵ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

⁹⁶ "Overview of Land Confiscation in Arakan State," (Mae Sod, Thailand: All Arakan Students' and Youths' Congress, 2010).

⁹⁷ "Agenda 21: The United Nations Programme of Action from Rio." Section II, chapter 9.21.

⁹⁸ Ibid. Section I, chapter 3.8.

⁹⁹ Ibid. Section I, chapter 7.30.

¹⁰⁰ Ibid. Section I, chapter 10.7.

¹⁰¹ Ibid. Section III, chapter 26.4.

¹⁰² Ibid. Section II, chapter 14.45.

also, if possible, provide incentives for, and help local communities plan and carry out, projects to conserve land or to restore degraded land.¹⁰³

Finally, Agenda 21 says that “governments... should establish judicial and administrative procedures for legal redress and remedy of actions affecting environment and development that may be unlawful or infringe on rights under the law.”¹⁰⁴ This means that governments need to set up some way for people who have been hurt or had their rights violated by illegal or unjust development practices or environmental abuse to have their cases fairly heard by the legal authorities.

As part of its Agenda 21 pledge, the Burmese government has said that it will create “a system of balanced and complimentary land use under which land is only diverted to uses where it would produce most and deteriorate least”.¹⁰⁵ While this statement does not say anything about land rights, it does mean that the government has publicly stated that it will work to avoid using land in ways that will degrade the land.

The National Environmental Performance Assessment – Land

The 2006 national EPA suggests that Burma should expand land rehabilitation programmes already taking place in Karen and Kayeh States; consider the role of credit in soil conservation; adopt a “farmer-field school approach” to training in soil conservation; and look at new technologies for sloping agriculture.

Burma has set up a National Committee for Combating Land Degradation. The national EPA says that this committee is a good example of different government agencies working together, and also claims that local NGOs have been participating in this committee, and that this is a good example of public participation in creating environmental policy.¹⁰⁶

The National Biodiversity Strategic Action Plan – Land

The latest draft version of the NBSAP states that the government will take the following steps within five years of the final plan being passed:

1. Adopt a clear land use policy that ensures environmental sustainability.
2. Create an integrated land use plan that takes into consideration national priorities and goals for different uses of land.
3. Establish a National Land Use Commission.
4. Greatly improve land productivity, and expand the amount of land being cultivated.
5. Review and strengthen laws and policies concerning land resources management to avoid conflicts between government ministries and departments.
6. Put in place Environmental Impact Assessments for land conservation projects.

¹⁰³ Ibid.

¹⁰⁴ Ibid. Section I, chapter 8.18.

¹⁰⁵ "Natural Aspects of Sustainable Development in Myanmar."

¹⁰⁶ "Myanmar National Environmental Performance Assessment Report."

7. Study desert and mountain ecosystems and identify the areas most at risk from floods, soil erosion, etc.
8. Encourage organic farming and the use of manure and other natural fertilisers.
9. Develop appropriate sustainable farming techniques.
10. Encourage practicing proper water management in the Dry Zone.

Burmese Government Structures Dealing with Land Issues

- The Ministry for the Progress of Border Areas and National Races and Development Affairs
- The Department of Human Settlement and Housing Development
- The National Commission for Environmental Affairs (NCEA)
- The National Environmental Conservation Committee (NECC)

Funding Land Reform

The Asian Development Bank – Land

For all projects it funds, the Asian Development Bank requires governments to consult with the people who will be displaced by the project, with the communities hosting displaced people, and with concerned NGOs. People displaced by the project must be provided with information about their rights and options when it comes to settling elsewhere, and must be involved in planning, implementing, monitoring, and evaluating the resettlement programme. The ADB requires governments to pay special attention to the needs of vulnerable groups, especially the poor, the landless and those who do not have the legal title to the land they use, the elderly, women, children, and ethnic minorities.

The government must obtain the consent of the indigenous or ethnic community for any ADB-funded project that develops traditional knowledge or culture for commercial purposes, displaces ethnic communities from the lands they have traditionally occupied, or commercially develops natural resources within the community's traditional lands in a way that affects ethnic people's livelihoods or the ways they use the land for cultural or spiritual purposes. Displacing ethnic peoples from their traditional lands, or restricting access to those lands, should be avoided if at all possible; if it cannot be avoided, the people displaced should be fully involved in developing a plan for managing the affected areas so that the benefits of the project are shared equitably. Where the project involves the government acquiring lands that ethnic communities have traditionally held, the government must recognise customary rights to those lands.

People affected by the project must have a mechanism to bring their grievances to the government and have them resolved. Where people are displaced by a project, the government must ensure that their new livelihoods are as good as, or better than, their former livelihoods. If possible, the government should grant displaced people comparable land; however, the government may pay them cash instead, if losing their land does not also mean losing their livelihoods. Where displaced people are given new land, they must also be given secure tenure to that land. If the government

negotiates with land owners to acquire the land for a project, the negotiations have to be conducted transparently and equitably.

Governments must also ensure that landless people, and people without titles or legal rights to the land they occupy, are still eligible for resettlement assistance, and to receive compensation for any assets (other than land) that they lose in the process. A resettlement plan – which has to list displaced people's rights, the government's plan for ensuring that these people's income and livelihoods are restored, the budget and schedule for resettlement, and how resettlement will be monitored – must be made available to people affected by the project. The resettlement must be monitored to make sure that people's livelihoods are protected.¹⁰⁷

The World Bank – Land

The World Bank's Operational Directives say that to secure World Bank funding, projects have to take into account the *customary* land rights of ethnic peoples (both of individual people and of the whole ethnic group), and ethnic communities' need for access to natural resources for both their cultural beliefs and their livelihoods. If the project needs to establish legal rights to, or acquire, land occupied or used by ethnic groups, it must first arrange for the ethnic groups' rights to the land to be recognised under national law. If the project involves developing natural resources on these lands, or developing the ethnic group's own traditional knowledge, the project developers need to inform the ethnic community of their rights to these resources or to that knowledge under both *customary* and *statutory* law. Projects should not remove ethnic communities from their land unless there is no other option, and ethnic peoples must freely and fully consent to being moved if it is necessary. If an ethnic group is moved, it has to be done in a way that suits their culture, and they must be resettled somewhere suitable.

The World Bank will not fund any projects that take away an ethnic community's access to their traditional lands so that those lands can become a public park or protected area, unless the community fully and freely consents first; shares in the benefits from the new park or protected area; and is involved in creating the plan to manage the park or protected area. If possible, the community should still be able to use the natural resources on their land, even after it is protected. Using ethnic communities' lands for such project should only be a last resort.¹⁰⁸ Displaced people should be given assistance so that their standards of living after being moved are as good as they were before the move, if not better.¹⁰⁹

Special Land Issue: Mining

Mining has a number of environmental impacts, including soil and water pollution, erosion, and the disruption of water systems (including sedimentation). In addition, the pollution from mining can have serious health effects on local people. Land is frequently confiscated from local farmers to be granted to mining companies¹¹⁰, both in government-controlled and in areas controlled by ethnic militias.¹¹¹

¹⁰⁷ Asian Development Bank, "Safeguard Policy Statement."

¹⁰⁸ "Indigenous Peoples."

¹⁰⁹ "Involuntary Resettlement," in *OP 4.12*, ed. World Bank (2001).

¹¹⁰ Pa-Oh Youth Organisation, "Poison Clouds: Lessons from Burma's Largest Coal Project at Tigyit," (Chiang Mai: Pa-Oh Youth Organisation, 2011).

¹¹¹ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

Although many mining operations are jointly owned and operated by foreign companies, corruption is reported to plague this industry in Burma.¹¹² There is no legal requirement under Burmese law for mining companies to carry out Environmental Impact Assessments (EIAs).

Agenda 21 and the National Sustainable Development Strategy – Mining

Myanmar Agenda 21 states that Burma will improve mining facilities to make mining and processing minerals more environmentally sustainable, and that the country will restore areas that have become degraded through mining.

Burma's National Sustainable Development Strategy outlines activities that the government has stated it will carry out by 2014, by 2019, and by 2024.

By 2014, the government has stated that it will:

- Require companies to carry out Environmental Impact Assessments;
- Start a few pilot projects to test out ways to protect and restore mining areas;
- Use clean technologies in new mining areas, and upgrade and seek cleaner production technologies in cooperation with countries in the region;
- Improve the technical skills of those involved in mining operations;
- Assign experts so that these steps can be monitored effectively; and
- Identify appropriate locations for disposing of solid waste from mining. (Solid waste from mining is frequently toxic, so it is important that the locations selected are far enough away, and that the waste is disposed of safely enough, that the waste does not have a negative effect on the soil and water used by nearby communities.)

By 2019, the government has stated that it will:

- Prepare guidelines for Environmental Impact Assessments and risk assessments of mining projects;
- Identify environmentally critical and sensitive areas;
- Develop and put in place environmental quality standards for mining operations, including standards for the liquid waste from mining sites;
- Introduce and impose compensation or rehabilitation fees when land is taken over for mining projects, and set up funding to restore areas degraded by mining;
- Undertake effective measures against the contamination of water sources;
- Prevent contamination outside of the mining site;
- Make sure that toxic and hazardous wastes are managed safely and properly;
- Create a plan to restore mining areas that have already been destroyed; and
- Promote environmental safeguards.

¹¹² Kachin News Group, "Burmese Military Junta Thrives on Cycle of Corruption," Mines and Communities, <http://www.minesandcommunities.org/article.php?a=9757&l=1>.

By 2024, the government has said that it will:

- Require that companies carry out risk assessments as part of the Environmental Impact Assessments they must conduct for mining operations;
- Improving mining officials' skills when it comes to Environmental Impact Assessments; and
- Ensure that the mining does not destroy or limit other land use options, and that mining areas are used for other purposes once the mining has finished.

The Mining Law of 1994

This is Burma's current law on mining, and it requires companies holding mining permits to "comply with the rules prescribed under this Law in respect of... making provisions for the environmental conservation works that may have detrimental effects due to mining operation". If the area where the company wants to mine lies outside the areas set aside for mining (Mineral Reserve Areas and Gemstone Tracts), the company needs to secure the permission of the landowners; however, if the government decides that the mining is in the country's best interest, the government may take over the land.¹¹³ Under the 2008 Constitution, all natural minerals belong to the State.¹¹⁴

The National Biodiversity Strategic Action Plan – Mining

The latest draft version of the NBSAP states that the government will take the following steps within five years of the final plan being passed:

1. Require that Environmental Impact Assessments be carried out during the initial exploration works.
2. Undertake a few pilot projects to protect and restore mining areas.
3. Use clean technologies in new concession areas, and upgrade and seek cleaner production technologies in cooperation with countries in the region.
4. Upgrade the technical skills of those involved in mining operations.
5. Assign experts for effective monitoring.
6. Identify appropriate locations for solid waste disposal from mining operations.

Burmese Government Structures Dealing with Mining Issues

- The Ministry of Mines
- The National Commission for Environmental Affairs (NCEA)
- The National Environmental Conservation Committee (NECC)

Forests

This section looks at the issues around forests and sustainable development. It explains the Burmese laws and ministries that deal with forestry, and discusses the influence that international agreements, organisations, and funding could have on Burma's forestry policies.

¹¹³ "The Myanmar Mines Law," ed. The State Law and Order Restoration Council (1994).

¹¹⁴ "Constitution of the Republic of the Union of Myanmar."

Why are forests important to sustainable development?

Forests are essential to sustainable development in Burma. Much of the political discussion about forests and sustainable development often focuses on climate change, because forests can help prevent climate change by absorbing greenhouse gases, and because destroying or degrading forests increases the amount of greenhouse gases in the atmosphere. However, forests are also important to sustainable development for other reasons. Forest land provides homes, fuel wood, food, medicine, and other resources to many people in Burma, and particularly to many ethnic groups whose traditional livelihoods and lifestyles rely on forests.

Forests are also a crucial part of preserving land and water resources: trees help keep soil from eroding away, affect rainfall, and are part of the natural process that filters water. Destroying forests can also change the natural weather patterns of an area, including the monsoon cycle.¹¹⁵ It is also possible for forests to be *degraded* without being destroyed – this means that the forest has been damaged. Common effects of forest degradation include some species of plants and animals dying out (a loss of biodiversity), and the forest becoming less effective at providing functions like preventing erosion, cleaning water, and regulating rainfall.

According to the latest Burmese government estimates, about 47% of Burma's land remains covered in forests.¹¹⁶ Much of the country's forest land has been lost to logging and deforestation: the amount of Burma's land that is covered in forests has fallen by 14% between 1975 and 2010.¹¹⁷ The forests that are left are not as thick and diverse as they once were,¹¹⁸ and only 23% of Burma's forest land is *closed forest* (intact forest where the tree branches form a complete canopy over the ground).¹¹⁹

Logging is one key cause of deforestation and the degradation of forests. The government is known to exceed the legal limits for timber production and export regularly.¹²⁰ Illegal logging is also still common.¹²¹

Converting forest land to agricultural land is another major cause of deforestation and degradation. In some cases, forests are cut down in order to grow trees for wood or fruit; however, replacing original forests with plantations of only one or two tree species is a form of forest degradation, and causes problems. Tree plantations are not thick and diverse enough to protect land and water resources in the same way as older forests.¹²²

¹¹⁵ Rebecca Lindsey, "Tropical Deforestation," (2007),

http://earthobservatory.nasa.gov/Features/Deforestation/deforestation_update.php.

¹¹⁶ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

¹¹⁷ "Myanmar Works More on Mitigation of Deforestation," (2010), http://www.illegal-logging.info/item_single.php?it_id=4618&it=news.

¹¹⁸ National Commission for Environmental Affairs, "Fourth National Report to the United Nations Convention on Biological Diversity."

¹¹⁹ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

¹²⁰ Leony Aurora, "Unless Sanctions on Myanmar Lifted, the Country May Have No Trees Left: Interview with Timber Association," (2011), <http://blog.cifor.org/4978/unless-sanctions-on-myanmar-lifted-the-country-may-have-no-trees-left-interview-with-timber-association/>.

¹²¹ "Myanmar Works More on Mitigation of Deforestation."

¹²² Khin Htun, "Myanmar Forestry Outlook Study," in *Asia-Pacific Forestry Sector Outlook Study II Working Paper Series* (Bangkok: Food and Agriculture Organisation of the United Nations, 2009).

Deforestation can also stem from development projects like mines, energy installations, industrial centres and oil and gas pipelines. Pit mining in particular leads to extensive deforestation and erosion. Without a system of Environmental Impact Assessments, the government does not consider whether these projects are worth the amount of deforestation they cause, nor does it look at whether the project is being careful to limit the amount of deforestation to the minimum necessary for the project to go forward. (This was an issue with the creation of the Yadana Pipeline, as project developers cut an unnecessarily wide path through the forest for the pipeline.)¹²³

Burma's government, in its latest report on its progress towards meeting the goals of Agenda 21, blames deforestation on the unsustainable use of forest resources by poor people in Burma, saying, "Much of deforestation stems from social disadvantages, mainly caused by poverty and shifting cultivation."¹²⁴ However, much deforestation is actually caused by large-scale logging (legal and illegal) to get timber to sell or export; plantation farming; and clearing land for mining and building, rather than by small-scale harvesting of fuel wood or by shifting agriculture. In fact, shifting cultivation can be a very sustainable practice when there is enough land to allow for sufficient crop rotation, and is better for the environment than plantation farming.¹²⁵ It is worth noting, though, that a rapid increase in the population of a forest area (which has happened in some areas of Burma because of the high number of internally displaced people within the country) can lead local communities to use the forest less sustainably in order to meet the needs of a larger population.

What is the law in Burma about sustainable development and forests?

Agenda 21 and the National Sustainable Development Strategy – Forests

The section of Agenda 21 that deals with forestry states that governments should develop an efficient system for managing forests and for preventing forests from being destroyed on a wide scale. More than that, governments should act to expand forest cover wherever possible, and should also restore degraded forests, with particular attention to human needs for fuel wood, agro-forestry (crops grown or gathered within forests), forest products apart from timber, wildlife, and the essential services forests provide (like preventing erosion, regulating rainfall, and filtering water).

Agenda 21 also says that governments should establish and expand a system of protected forests that are not allowed to be destroyed or used, and should also manage the areas, or "buffer zones", around these protected forests to make sure that the buffer zones are used sustainably (because if the buffer zones become degraded or disappear, it could damage the protected forests). Governments should work to better protect forests from human activities like pollution, poaching, mining, and

¹²³ Paul Donowitz et al., "Total Impact: The Human Rights, Environmental, and Financial Impacts of Total and Chevron's Yadana Gas Project in Military-Ruled Burma (Myanmar)," (Chiang Mai, Thailand: Earthrights International, 2009).

¹²⁴ "Natural Aspects of Sustainable Development in Myanmar."

¹²⁵ Htun, "Myanmar Forestry Outlook Study."

uncontrolled shifting agriculture. Where forests are used, governments should make sure they are used sustainably, through measures like making timber harvesting more efficient and promoting the use of other forest products aside from timber.

Governments should also work to solve the economic and social problems that make it difficult for poor people to use forests sustainably (like a lack of land suitable for farming, or a lack of access to other kinds of fuel apart from wood). Governments should control pollution that affects forests.

According to Agenda 21, governments should involve “labour unions, rural cooperatives, local communities, indigenous people, youth, women, user groups and non-governmental organizations”¹²⁶ in forest management, which includes providing these groups with access to information and training on forest activities. Agenda 21 also says, “National forest policies should recognize and... support the identity, culture and the rights of indigenous people, their communities, and other communities and forest dwellers. Appropriate conditions should be promoted for these groups to enable them to have an economic stake in forest use, perform economic activities, and achieve and maintain cultural identity and social organization, as well as adequate levels of livelihood and well-being, through, inter alia, those land tenure arrangements which serve as incentives for the sustainable management of forests.”¹²⁷

Agenda 21 states that governments should require Environmental Impact Assessments (EIAs) when projects are likely to have a significant impact on forests.

Agenda 21 also says that governments should conduct research on different aspects of forests, and on the impact of human activities on forests. The sustainable management of forests should be included in policies on other issues, like land use, agriculture, energy, and industry.¹²⁸

So far the Burmese government has only adopted two policies to include major groups in its plans for forestry: involving local forestry officials in the planning, and “encouraging and assisting” local communities to apply to manage community forests.¹²⁹ This does not meet the requirement set out in Agenda 21 that major groups “participate in environmental impact assessment procedures and... know about and participate in decisions, particularly those which potentially affect the communities in which they live and work”.¹³⁰ The government has not allowed major groups (apart from local government officials) to participate in making decisions, or to get involved beyond the community forest programme.

The Forest Law of 1992 and the Forest Policy of 1995

The Forest Law of 1992 allows the Minister of Environmental Conservation and Forestry to set aside *reserved forests*, including forests for commercial use, for local supply, to protect watersheds or catchments, or to conserve the environment and biodiversity. The Minister may also set aside forest land outside these reserved

¹²⁶ "Agenda 21: The United Nations Programme of Action from Rio." Section II, chapter 11.3.

¹²⁷ Ibid. Annex III (Forest Principles).

¹²⁸ Ibid.

¹²⁹ "Natural Aspects of Sustainable Development in Myanmar."

¹³⁰ "Rio Declaration on Environment and Development."

forests as *protected public forests* for the purpose of environmental conservation (especially of mangrove trees, dry-zone forests, water, and soil) or of sustainable production. The Ministry is required to look into the way that setting aside forest land will affect the rights of local people before creating protected forests. With the approval of the government, the Minister can also cancel a forest's protection. The law also established the government's ownership of all teak trees in Burma, and the Ministry's right to determine which tree species are reserved.

This law gives local committees power over forestry policies in different areas, and allows private companies to get involved both in the timber industry and in preserving and managing forests. Organisations, both alone and in partnership with the government, can establish and run plantations (including commercial, industrial, environmental conservation, and local supply plantations). Local communities may also manage village firewood plantations, if the Ministry of Environmental Conservation and Forestry decides to grant them the land to do so out of a reserved or protected public forest, or another forest at the Ministry's disposal. To harvest produce from the forests on a commercial scale, a company needs a government permit.¹³¹

The 1995 Forest Policy, which supports and helps carry out the Forest Law of 1992, states that the government has promised "to ensure sustainable development of forest resources while conserving wildlife and wild plants, and enhancing the ways of living of indigenous people." The Forest Policy is based on six principles:

- the protection of the soil, water, wildlife, biodiversity, and environment;
- the sustainability of forest resources for both the present generation and future generations;
- meeting people's basic needs for fuel, shelter, food, and recreation;
- earning money from forest resources in a socially and environmentally responsible way;
- the participation of local people in conserving and using forests; and
- public awareness of the importance of forests in development and in the wellbeing of the country.¹³²

The International Tropical Timber Organisation

Burma is a member of the International Tropical Timber Organisation, and "intends" to use the organisation's established criteria and indicators for sustainable forest management.¹³³ However, at the moment, membership of the International Tropical Timber Organisation does not mean that Burma is required to keep to any particular environmental guidelines.

The Wildlife, Wild Plant, and Natural Areas Law 1994

Under the Wildlife, Wild Plant, and Natural Areas Law, the Minister of Environmental Conservation and Forestry can create protected areas (with the approval of the government, and of any other ministries involved), and can also cancel protected areas with the approval of the government. Protected areas include

¹³¹ "The Forest Law," ed. The State Law and Order Restoration Council (1992).

¹³² "Natural Aspects of Sustainable Development in Myanmar."

¹³³ Ibid.

Scientific Reserves; National Parks; Marine National Parks; Nature Reserves; Wildlife Sanctuaries; and Geo-physically Significant Reserves (where the land itself, rather than the plant and animal life, is important and needs to be protected), but can also include any other type of natural reserve the Minister decides to create. The Law also provides penalties, including possible fines, imprisonment, or both, for polluting a protected area.¹³⁴

Community Forest Instructions

Community Forest Instructions have been practiced since 1995 to encourage local communities to build forest plantations, using traditional skills.¹³⁵ The programme of Community Forest Instructions lets local communities apply to the government to hold the lease for local forest land for 30 years, and manage the land as a community forest. According to the government of Burma, over 101,000 acres have now been established as community forests, and over 40,000 local people are involved with the management of these forests.¹³⁶

Community forests are seen as a way of recognising customary land tenure,¹³⁷ as the community forest programme provides more legal protection for the community's rights to the land than customary land laws do.¹³⁸

However, community forests are not always beneficial to the communities that manage them. In some cases, communities have had to dedicate land that would otherwise be used for crops in order to create new forests, and have had to spend time tending the forest instead of working in their own fields. Also, some communities focus on using their forests to plant tree species like teak for commercial sale. This means that the forests are not being preserved intact, nor are they being used to provide food or fuel wood for local people. Improving the regulations on community forests could help address these problems.¹³⁹

Another issue is that if the forest land a community wishes to manage is not under the direct control of the Ministry of Environmental Conservation and Forestry, the community has to apply to the Settlement and Land Record Department within the Ministry of Agriculture and Irrigation for permission to establish a community forest there. Since the Ministry of Agriculture and Irrigation is more focused on agricultural production than forest conservation, few of these applications are granted.¹⁴⁰

Overall, the community forest programme has not been taken up as quickly as the government has planned. The government intends for there to be 1.5 million acres of community forest by 2030, but by 2010, only 100,000 acres had been established.¹⁴¹

¹³⁴ "The Protection of Wildlife and Conservation of Natural Areas Law."

¹³⁵ "Country Profile - Myanmar," Convention on Biological Diversity, <http://www.cbd.int/countries/profile.shtml?country=mm#status>.

¹³⁶ Le Le Thein and U Than Naing, "Ministry of Forestry, the Union of Myanmar," in *Combined Safeguards and Subregional Capacity-Building Workshop on ERDD-plus* (Singapore: 2011).

¹³⁷ "Myanmar National Environmental Performance Assessment Report."

¹³⁸ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

¹³⁹ Ibid.

¹⁴⁰ Thu, "National Biodiversity Strategic Action Plan Myanmar."

¹⁴¹ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

The Burmese government frequently mentions its community forest programme to international institutions and to other governments as proof that Burma is empowering local communities to participate in forest management, and is managing forests in ways that meet the needs of local people.¹⁴² Therefore, the government has an interest in the community forest programme appearing successful, which could open up opportunities for advocacy.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

CITES lists species that cannot be traded internationally at all and species that can only be traded internationally under specific circumstances. According to Burma's government, "Myanmar's accession to CITES on 13 June 1997 was highly significant, in light of the significance of the wildlife trade as a driving force for over-exploitation of wildlife populations in the country."¹⁴³ However, in reality, CITES is very rarely enforced in Burma.¹⁴⁴

The National Forest Master Plan of 2000

The National Forest Master Plan covers managing natural forests, establishing forest plantations, establishing community forests, growing trees in homestead and non-forested areas, and promoting the wood products industry. The aim is to have the country's permanent forest estate steady at 40% of Burma's land by 2030.¹⁴⁵ Currently, about 47% of Burma's land is forested; the government intends for the remaining 7% forest to be "conversion forest" that can be used for other purposes.¹⁴⁶ Individual forest districts (known now as "forest management units") have to prepare ten-year plans for forest management.¹⁴⁷

National Code of Practice for Forest Harvesting in Myanmar

The National Code of Practice for Forest Harvesting sets up a system of annual legal limits on felling trees (including number, size, and variety of tree), but the government can set and change these, and has recently increased the limits for non-teak hardwoods, seemingly to better compete in the timber market.¹⁴⁸ Actual timber harvesting frequently does not keep to the limit.¹⁴⁹

Burma's National Environmental Performance Assessment – Forests

The 2006 national EPA states that "forest conservation activities have been overshadowed in Myanmar by commercial logging, on the one hand, and state-run forest plantations, on the other"¹⁵⁰. The EPA recommends that future EPAs should try to better understand why deforestation is occurring, and states that it is possible that deforestation from agriculture and illegal logging is significantly under-reported.

¹⁴² Ministry of Environmental Conservation and Forestry, "Green Development Initiative in Myanmar."

¹⁴³ Thu, "National Biodiversity Strategic Action Plan Myanmar."

¹⁴⁴ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

¹⁴⁵ National Commission for Environmental Affairs, "Fourth National Report to the United Nations Convention on Biological Diversity."

¹⁴⁶ "Natural Aspects of Sustainable Development in Myanmar."

¹⁴⁷ _____, "Fourth National Report to the United Nations Convention on Biological Diversity."

¹⁴⁸ "Ministry of Forestry," Yangon City,

http://www.yangoncity.com.mm/ministry/ministry_of_forestry.asp.

¹⁴⁹ Htun, "Myanmar Forestry Outlook Study."

¹⁵⁰ "Myanmar National Environmental Performance Assessment Report." Page 71.

It also calls for better monitoring in general, especially of fuel wood production (information that should also shape Burma's energy policy) and of the effect of new programmes, such as community forests.¹⁵¹ Finally, the EPA recommends that the government set targets to limit forest degradation, not just the complete loss of forests.¹⁵²

The EPA cites the national tree planting campaign as one way in which environmental messages are conveyed, and also mentions primary-school education programmes on natural processes and basic conservation (including tree planting), as well as television and radio programmes.¹⁵³ Public workshops on conservation techniques are also held, sometimes jointly with NGOs.

The EPA holds up the community forest programme as a good example of public participation in creating environmental policy, saying that the forest user group is in charge of creating a forest management plan, with the Forest Department's help, and that these plans specify the pattern of benefit-sharing, meaning that local people can participate, not just in carrying out a policy, but in shaping it and deciding who benefits from it. The EPA claims that community forests can provide a model for public participation in future environmental programmes. However, the EPA does not recognize all of the problems with the community forest programme mentioned earlier.

The Association of South East Asian Nations – Forests

In 2007, the countries of the Association of South East Asian Nations (ASEAN) – Burma, Brunei Darussalam, Cambodia, Indonesia, Lao, Malaysia, Philippines, Singapore, Thailand, and Viet Nam – signed the ASEAN Statement on Strengthening Forest Law Enforcement and Governance (FLEG). The purpose of this agreement is “to strengthen forest law enforcement and governance in their respective countries, particularly in preventing and combating illegal logging and its associated trade, consistent with prevailing national laws, rules and regulations,” and to improve cooperation in trade, regional customs, certifying timber, monitoring the environment and economy of the forest sector, and sharing experience.

The 2007 Strategic Plan of Action on ASEAN Cooperation in Food, Agriculture, and Forestry also promotes sustainable forest management, trade in sustainable wood products, and a crackdown on illegal logging, but most of the specific actions relate to capacity-building, developing guidelines (such as for reduced-impact logging), and sharing information.¹⁵⁴

The National Biodiversity Strategic Action Plan – Forests

The latest draft version of the NBSAP states that the government will take the following steps regarding forests within five years of the final plan being passed:

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Ibid.

¹⁵⁴ "Strategic Plan of Action on Asean Cooperation in Food, Agriculture, and Forestry," Association of SouthEast Asian Nations, www.aseansec.org/6218.htm.

1. Put in place a national land-use policy that allocates the country's land for various uses, including legal forestry and conservation. Discourage policies that lead to resource degradation or to converting forests for other uses.
2. Determine the amount of timber that can be legally cut each year based on the country's environmental, social, and economic needs, and ensure that timber harvesting stays below this limit.
3. Monitor forest plans to make sure they are carried out.
4. Create a way for international and local institutions, as well as local communities, to get involved in planning, carrying out, and evaluating forest management.
5. Conduct Environmental Impact Assessments (EIAs) of forestry projects.
6. Where timber harvesting is allowed, encourage selective harvesting of individual trees instead of clear-cutting.
7. Create and implement a National Code of Harvesting.
8. Make unclassified forests into protected forests in order to stop forest degradation.
9. Effectively enforce the laws against encroachment, poaching, illicit logging, and illegal wildlife trade.
10. Reforest watershed areas.
11. Encourage using elephants instead of machinery for timber harvesting.
12. Use reduced-impact logging techniques.
13. Promote the sustainable management of the buffer zones around protected areas and the creation of privately-owned forest gardens for the benefit of local people.
14. Set up a system to fairly share the benefits of community forestry programmes.

The Green Development Initiative

The Green Development Initiative (GDI) of 2011 is the Burmese government's plan increase permanent forest estate from 24% to 30%, and protected areas to 10%, of the country. The GDI builds on existing environmental policies and government agencies in Burma, as well as introducing some new policies. These include forest development (including watershed and mangrove plantations and forests in border areas), as well as industrial targets for reducing energy use and waste, encouraging recycling, and promoting clean energy. However, the government says that it needs additional knowledge, resources, and capacity to conduct the GDI.¹⁵⁵

Burmese Government Structures Dealing with Forest Issues

- The Ministry of Environmental Conservation and Forestry
- The National Commission for Environmental Affairs (NCEA)
- The National Environmental Conservation Committee (NECC)

¹⁵⁵ Ministry of Environmental Conservation and Forestry, "Green Development Initiative in Myanmar."

Funding Forests

Both legal and illegal logging projects in Burma often involve foreign companies and are driven by the need for money in conflict zones and by demand from neighbouring countries, like China, Thailand, and India.¹⁵⁶ Funding sustainable development in Burma – part of which is protecting Burma's remaining forests – starts by first addressing the financial link between timber and conflict in Burma, and then reconsidering the timber trade with neighbouring countries that are hungry for timber due to strong environment policies and logging restrictions in their own country.

REDD

Reduced Emissions from Deforestation and Degradation (REDD) is an international system through which developing countries with environmentally significant forests can receive international funding to preserve those forests, rather than cutting them down. REDD is a form of greenhouse gas trading, where companies in developed countries, instead of reducing their own greenhouse gas emissions, pay for reductions in greenhouse gas emissions elsewhere in the world.

REDD works like this: a section of forest land that would otherwise be destroyed or degraded is set aside, and the greenhouse gases that the forest continues to remove from the air are calculated. The project then sells credits for the greenhouse gases that are not released because the forest was not destroyed. Businesses buy these credits. At least some of the money from the sale of credits is supposed to go to benefit local communities. However, there have been some issues with REDD projects in other countries, where the projects have either been conducted without the Free, Prior, and Informed Consent of the local people (especially ethnic and indigenous groups) who use the land, or where local people have not seen the benefits of these projects.

The UN programme responsible for setting up a system of REDD credit trading and creating guidelines for it is the UN-REDD Programme. The UN-REDD Programme works with many developing countries with forest resources that wish to sell REDD credits, in order to help these countries set up the laws and institutions they need to create REDD projects.

The Burmese government is very interested in selling REDD credits¹⁵⁷, which could be a significant source of income for the country.¹⁵⁸ Because REDD could potentially have negative effects on local people who rely on forests for their livelihoods, any future REDD projects must be carefully monitored to ensure that local people have a say in whether and how the projects are carried out, and that local people benefit.

The Ministry of Environmental Conservation and Forestry has created a unit specifically to prepare Burma to develop REDD projects, although there are no projects currently running.

¹⁵⁶ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

¹⁵⁷ Ibid.

¹⁵⁸ Asian Development Bank, "National Redd+ Strategies in Asia and the Pacific: Progress and Challenges," (Mandaluyong City: Asian Development Bank, 2010).

The World Bank – Forests

The World Bank sometimes lends countries money to restore forests in a way that protects or improves the biodiversity of the forest and the way the ecosystem works. The Bank may also lend money for the creation of tree plantations, if these benefit local people and do not harm the environment, while still making money.

The World Bank will not lend money for projects of any kind that involve destroying critical forests to use the land for a different purpose (even if that purpose is growing different types of trees), or that would degrade critical forests. (The Bank determines whether or not a forest is “critical” before deciding whether to fund a project.) If the forest that would be destroyed or degraded is not critical, then the Bank might finance the project, but will require the developers of the project to take steps to limit the amount of damage to the forest.

The World Bank may lend money for projects to harvest and sell wood or forest produce, but not in critical forests. Projects like this have to be certified by an independent body to show that they are managing the forests responsibly. These projects must prove, among other things, that the project:

- follows the law,
- respects both statutory and customary laws about land ownership (please see the section on land for an explanation of these two kinds of laws),
- respects the rights of ethnic peoples,
- protects biodiversity and ecosystems,
- limits the damage to the forest, and
- monitors the effects of the project to make sure that all of these things remain true.

The World Bank can fund similar projects run by small-scale landholders or local communities. In these cases, the projects do not need to be certified, but they do need to work with all the local communities affected by the project to come up with standards for how the project will be run responsibly.¹⁵⁹

The World Bank requires Environmental Impact Assessments for all projects.¹⁶⁰

Agriculture

This section looks at the issues around agriculture and sustainable development. It explains the Burmese laws and ministries that deal with agriculture, and discusses the influence that international agreements, organisations, and funding could have on Burma’s agriculture policies.

Why is agriculture important to sustainable development?

Agriculture is an essential part of Burma’s economy, and provides the livelihoods of almost 34 million of Burma’s 51 million people.¹⁶¹ However, agriculture that is not

¹⁵⁹ "Forests," in *OP 4.36*, ed. World Bank (2002).

¹⁶⁰ "Environmental Assessment," in *OP 4.01*, ed. World Bank (1999).

carried out sustainably can pollute and erode the soil, deplete or pollute water reserves, and lead to a loss of biodiversity. Clearing forest land for agricultural plantations is a major cause of deforestation in Burma. Plantation farms have additional unsustainable impacts on the environment and communities when they take the place of well-managed traditional agriculture (shifting cultivation).

Sustainable agriculture is important to safeguarding the environment and the long-term security of Burma's food supply, as well as the future livelihoods of local communities that depend on agriculture.

What is the law in Burma about sustainable development and agriculture?

Agenda 21 and Burma's National Sustainable Development Strategy – Agriculture

Agenda 21 commits governments to create agriculture and food policies that will help ensure food security and that will foster trade to make the national economy stronger. However, Agenda 21 also states that governments should create policies that will lead to sustainable agriculture and rural development, especially in areas where the ecosystem is fragile. These policies should include developing or transferring agricultural technology to help grow crops with lower amounts of inputs (like fertilizer, pesticide, or water), and, if possible, developing projects that combine growing crops with sustainably managing forests, fisheries, or other natural resources. Governments should also set up local agricultural training.

Agenda 21 also states that economic policies on issues like taxing farms and providing credit should be designed to give the poor equal access to government support for growing crops. Governments should work to strengthen rural community groups and devolve power over decisions on agriculture to these local groups.¹⁶²

According to Burma's latest report on its progress towards the goals of Agenda 21, the government aims to increase agricultural production in order to make Burma's food supply more secure, and also to improve trade by exporting food. The goals of the government's policies on crop production are to be self-sufficient in edible oil (so that the country does not have to import it); to have a surplus of rice (so that rice can be exported); and to increase the production and export of pulses and industrial crops (especially cotton and sugarcane). To meet these goals, the government intends both to increase the amount of land used for crops, and to make the land produce more through such methods as using machines to farm more efficiently and growing multiple or mixed crops on the same land.

The report further states the government is establishing technological demonstration projects around the country to show off agricultural technology and techniques, and is also campaigning for the use of organic fertilizers; introducing integrated pest management strategies and cold storage and transport facilities for food; and encouraging the use of better rice mills.

¹⁶¹ "Myanmar," Food and Agriculture Organisation of the United Nations, <http://www.fao.org/countries/55528/en/mmr/>.

¹⁶² "Agenda 21: The United Nations Programme of Action from Rio."

The government cites widespread integrated pest management, especially on rice, pulses, beans, peanuts, sesame, and cotton, and a low volume of artificial pesticide in use. Training programmes are in use to promote integrated pest management.

The government also mentions that it allows farmers free choice of the crops they grow, and the ability to reduce the amount of rice each farm is required to produce depending on how well that specific rice crop has done. The government says it does not require a quota or charge a land tax on second crops, and keeps the price for water for irrigation low.¹⁶³ However, according to the FAO, the low water prices mean that farmers do not think about the amount of water they use in irrigation, which can contribute to water shortages.¹⁶⁴

The government also reports on public education through farmers' meetings, pamphlets, radio broadcasts, television, field days, and other activities, and the national Agriculture Service occasionally provides local trainings on efficient and effective use of irrigation water to the farmers and staff.¹⁶⁵

The government's policies, as stated in its latest Agenda 21 report, include:

- Giving those who develop new agriculture land or who are cultivating the land the right to cultivate that land;
- Granting land ownership to the perennial crops growers, as long as they are producing commercially; and
- Increasing, and inviting the participation of private sector in, distributing agriculture machinery and other inputs.

Specific, agriculturally focused small-scale programmes run by both government and non-government agencies also exist to eradicate rural poverty, and these focus on "vulnerable and disadvantaged groups of the entire country".¹⁶⁶ These programmes include:

- Development programmes in border areas and among ethnic communities;
- National programmes to green dry zones;
- Model mechanized farming villages;
- A contract farming system in livestock and fishing; and
- A rural credit scheme.

The government says that it is gathering the opinions of major groups and reflecting their opinions in decisions about agricultural policy, because the government carries out surveys of the social and economic conditions throughout the country, of agricultural prices, and of whether farmers are adopting the new technologies the government recommends. However, these surveys do not actually ask for the views of representatives from major groups – they only ask about economic and social facts, and then look into whether the government's policies are being put into practice. If

¹⁶³ "Natural Aspects of Sustainable Development in Myanmar."

¹⁶⁴ Aquastat, "Myanmar."

¹⁶⁵ "Natural Aspects of Sustainable Development in Myanmar."

¹⁶⁶ Ibid.

the government does not seek out balanced and inclusive input from major groups, it is not fulfilling its obligation to consult these groups.

Agriculture Policy 1992

Burma's Agriculture Policy of 1992 says that:

- Food crops and industrial crops can be produced without restrictions (meaning that farmers can choose which crops to grow), and industrial and plantation crops can be produced on a commercial scale.
- Private investors and farmers can use waste land that is suitable for agriculture to grow crops. ("Waste land" means any unproductive land, so this means that land deliberately left fallow as part of a traditional system of agriculture can be confiscated to grow crops.)¹⁶⁷
- The private sector should be encouraged to get involved in distributing farm machinery and other inputs. This kind of involvement has caused problems in Thailand and other countries in the past, as industrial fertilizers and seeds, sold by private companies, can be very expensive for farmers in the long run¹⁶⁸, and can discourage farmers from using traditional methods of saving seeds, and from using more environmentally friendly, non-chemical fertilizers.
- "Agriculturally unproductive" land should be used to produce other things.

Burma's government is implementing this policy by developing new agricultural land, providing and having farmers adopt new agricultural machines and technologies, developing and using new varieties of crops, and providing water for irrigation.

Burma's National Environmental Performance Assessment – Agriculture

The 2006 national EPA cites new cultivation (in response to rising population) as the reason for erosion problems on about 10% of the country's cropland, mostly in the uplands.¹⁶⁹ The EPA does not mention that much of the rise in population is due to the arrival of high numbers of internally displaced persons in these areas.¹⁷⁰

The Association of South East Asian Nations – Agriculture

In 2007, the Association of South East Asian Nations (ASEAN) agreed to a joint Strategic Plan of Action on ASEAN Cooperation in Food, Agriculture, and Forestry. This plan commits these governments to share information about agriculture in their countries and help put together central databases; to work to transfer agricultural technologies; and to work on establishing common negotiating positions in the international arena, as well as closer links with international organisations like the United Nations.¹⁷¹ While this plan does not bind Burma to anything specific, it does provide one more route through which information about agriculture and land use in Burma may become public.

¹⁶⁷ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

¹⁶⁸ Loren Cardeli, "Soil Restoration and Seed Saving - Thailand," (2011), <http://www.agrowingculture.org/2011/02/soil-restoration-seed-saving-thailand/>.

¹⁶⁹ "Myanmar National Environmental Performance Assessment Report."

¹⁷⁰ Thu, "National Biodiversity Strategic Action Plan Myanmar."

¹⁷¹ "Strategic Plan of Action on Asean Cooperation in Food, Agriculture, and Forestry."

The National Biodiversity Strategic Action Plan – Agriculture

The latest draft version of the NBSAP states that the government will take the following steps within five years of the final plan being passed:

1. Conduct environmental analysis as part of land use planning to ensure that environmentally valuable lands and sensitive areas are not converted for crop planting.
2. Stop unsustainable agricultural and other land uses leading to deforestation, soil degradation, and desertification.
3. Monitor the use of chemical fertilizers and pesticides to prevent excessive overuse and soil and water pollution.
4. Research sustainable ways of producing and processing food, and help farmers to train other farmers in these methods.
5. Introduce the practice of carrying out Environmental Impact Assessments before the construction of dams and agricultural projects and infrastructure.
6. Prioritise making existing cropland more productive, rather than cultivating new land.
7. Develop activities related to sustainable pastureland use.
8. Promote organic farming and develop a national standard for organic certification.

Other agriculture policies

The government has a long-standing policy requiring farmers to produce crop quotas, and crops are frequently seized by the military.¹⁷² Farmers who do not meet quotas stand to lose their lands, and there are reports of farmers who are unable to meet their quotas being captured and tortured.¹⁷³

The Burmese government has also created a new policy to require the growing of jatropha as a form of biofuel. (Biofuels are a kind of renewable energy made out of plants or animal waste. In the case of jatropha, the oil from jatropha nuts can be mixed with diesel to produce a fuel that can be used like diesel.) Despite the fact that jatropha trees must grow for five years or more before they can produce this fuel, and despite the fact that there are serious doubts about whether jatropha can be a profitable biofuel, the government has put in place an extremely high target that would be basically impossible to reach. The aim is for the entire country to produce 8 million acres of jatropha, with each state or division required to plant 500,000 acres, regardless of the size of the state or of whether or not the land is suitable for growing jatropha.¹⁷⁴ Widespread land confiscation and forced labour are being used to meet the government's target, with farmers who do not meet jatropha quotas being arrested, fined, and threatened.¹⁷⁵

¹⁷² "Environment," Canadian Friends of Burma,
<http://www.cfob.org/burmaissue/environment/environment.shtml>.

¹⁷³ Sein Htay et al., "The Impact of the Confiscation of Land, Labour, Capital Assets and Forced Relocation in Burma by the Military Regime."

¹⁷⁴ "Overview of Land Confiscation in Arakan State."

¹⁷⁵ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

The policy requiring jatropha cultivation is completely against the principles of sustainable development set out in Agenda 21 and elsewhere: it encourages the use of intensive agriculture that is not appropriate for the local climate; it damages biodiversity by replacing diverse areas with a single crop; it harms local communities, and it does not take the views or needs of local people into account.

Burmese Government Structures Dealing with Agriculture Issues

- The Ministry of Agriculture and Irrigation
- The National Commission for Environmental Affairs (NCEA)
- The National Environmental Conservation Committee (NECC)

Funding Agriculture

Most agricultural support in Burma *appears* to come from within the country, usually in the form of generous agricultural land concessions to favoured private Burmese companies that sell crops to foreign markets. Behind the scenes, foreign investment is suspected in many large plantation schemes located close to Burma's borders. In contrast, smallholder farmers continue to lack funding and support from within the country, and continue to lose agricultural land to large private companies.¹⁷⁶ Funding sustainable agriculture in Burma requires adequate money and support for small farmers, and reform of the process for granting land concessions to agribusinesses.

The Asian Development Bank and the World Bank may invest in agriculture in Burma in the near future. In particular, Burma may be eligible for funding from the World Bank's new Global Agriculture and Food Security Programme. However, some NGOs are concerned that this programme is too focused on funding agribusiness, rather than on small-scale subsistence farming.¹⁷⁷

United Nations

The United Nations conducts agriculture projects in Burma through two of its agencies, the Food and Agriculture Organisation and the United Nations Development Programme. Most of these are small, local projects carried out by these agencies directly. The projects carried out by the Food and Agriculture Organisation are mostly capacity-building projects, including some in ethnic areas like Shan State, as well some as in the Irrawaddy delta after Cyclone Nargis.¹⁷⁸

The United Nations Development Programme runs the Human Development Initiative Programme in Burma. This programme operates on a very local level, working with individual villages, and is targeted towards the most vulnerable. While it has an environmental component, its projects focus more on agricultural land development, land productivity, and water sanitation.¹⁷⁹

¹⁷⁶ Ibid.

¹⁷⁷ "Farming Furore: World Bank Launches New Agriculture Fund," (2010), <http://www.brettonwoodsproject.org/art-565915>.

¹⁷⁸ "Myanmar."

¹⁷⁹ United Nations Development Programme Myanmar, "The Human Development Initiative of Undp, Myanmar - Targeting the Most Vulnerable," (Yangon: United Nations Development Programme, 2008).

Water

This section looks at the issues around water and sustainable development. It explains the Burmese laws and ministries that deal with water, and discusses the influence that international agreements, organisations and funding could have on Burma's water policies.

Why is water important to sustainable development?

Water is vital for human, animal, and plant life. People need fair access to enough clean water to meet their daily needs, and water is also necessary for agriculture (irrigation can increase the yield of a crop several hundred times) and for industry. Burma has a relatively high amount of fresh water, but its freshwater supplies are heavily affected by the monsoon cycle, which means that the changes in the climate outlined in the Chapter 2 will affect Burma's water supply more and more severely over time.¹⁸⁰

What is the law in Burma about sustainable development and water?

There is no single institution responsible for managing the country's water resources, but a proposal has been put in to the Ministry of Agriculture and Irrigation to establish a national water commission, so this situation may change.

United Nations – Water

Several binding United Nations agreements that Burma has signed mention that people have the right to clean water to use.

- The Geneva Conventions recognise a right to drinking water.
- The Declaration on the Right to Development has been interpreted by the United Nations' General Assembly to mean that "the rights to food and clean water are fundamental human rights and their promotion constitutes a moral imperative both for national governments and for the international community".
- The Convention on the Elimination of All Forms of Discrimination Against Women, to which Burma is a party, protects the right of women to adequate living conditions, including water supply.
- The Convention on the Rights of the Child, which Burma has also signed, protects children's right to clean drinking water.

A number of non-binding declarations and statements also recognise the right to water, or the need to preserve water resources: the Stockholm Declaration states that the planet's water resources must be protected for future generations, while the Action Plan from the United Nations Mar de la Plata Water Conference and the Statement from the Dublin Conference on Water and Sustainable Development both recognise the provision of clean drinking water as a human right.¹⁸¹

¹⁸⁰ Aquastat, "Myanmar."

¹⁸¹ Angela Cassar, Noemi Nemes, and John Scanlon, "Water as a Human Right?," in *IUCN Environmental Policy and Law Papers* (IUCN Environmental Law Programme, 2004).

The United Nations' Food and Agriculture Organisation (FAO) has said that Burma needs to review its existing laws and regulations on water management and develop them further to create a "unified water resources law" that would be more effective for sustainably managing the country's water resources. In particular, the government should set out the specific roles and responsibilities of the different government agencies when it comes to issues like water allocation.¹⁸²

Agenda 21 and the National Sustainable Development Strategy – Water

Agenda 21 includes a statement that all people have the right to clean drinking water, and says that this right has three components: People (regardless of their social or economic conditions) must have *access* to water, and this water must be of a *quality* and *quantity* to meet their basic needs.¹⁸³

Agenda 21 requires governments to act to preserve the marine environment and the biodiversity of ocean and coastal species and habitats, especially in biodiverse areas and areas important for fishing, through measures such as designating protected areas. Mangrove forests should be a priority. Governments should also work to control erosion and silt that has eroded from the land piling up in bodies of water, especially from land use and construction. Agenda 21 also says that governments should prohibit destructive fishing practices, like the use of dynamite or poison, and should consider whether to put stricter laws in place to prevent pollution from offshore oil and gas platforms.

Agenda 21 says that governments should take the needs of local communities, indigenous and ethnic groups, and small fisheries into account when creating policies for using marine resources, and that "where appropriate", governments should involve women, local communities, and ethnic groups in determining policies for managing marine and coastal areas.¹⁸⁴ Agenda 21 also states that governments should "recognize the rights of small-scale fishworkers and the special situation of indigenous people and local communities, including their rights to utilization and protection of their habitats on a sustainable basis"¹⁸⁵. Agenda 21 suggests, but does not require, that governments consider creating special agencies to manage coastal resources.

When it comes to freshwater resources, Agenda 21 lists a number of suggested measures that governments could take, but does not require that governments do so. These measures include:

- Protecting and conserving freshwater sources;
- Restoring degraded sources of freshwater, and the surrounding areas;
- Analysing the risks and the environmental and social impacts of floods and droughts, and working to lessen these risks and impacts;
- Improving sanitation;
- Encouraging more efficient use of water;

¹⁸² Aquastat, "Myanmar."

¹⁸³ Cassar, Nemes, and Scanlon, "Water as a Human Right?."

¹⁸⁴ "Agenda 21: The United Nations Programme of Action from Rio."

¹⁸⁵ Ibid. Section II, chapter 17.81.

- Expanding the water supply, especially to the rural poor, and ensuring that water is distributed as well as possible;
- Expanding irrigation and the supply of water for livestock, including supplying water to dry areas (like Burma's Dry Zone), and also making irrigation more efficient;
- Working to prevent the water-logging of land and to control salt water seeping into freshwater reserves on land;
- Requiring Environmental Impact Assessments (EIAs) for all major water resource development projects;
- Controlling pollution, and making polluters pay for water pollution;
- Taking the environment into account in developing hydroelectric dams;
- Including the management of water resources in policies in other sectors, especially agriculture and land policies;
- Delegating water management to local authorities, private companies, and local communities;
- Promoting community rights to water supplies, and creating a way for the public (especially women, young people, indigenous and ethnic groups, and local communities) to participate in water management; and
- Studying water resources, including researching the effects of climate change on water and the social and economic impacts of those effects.¹⁸⁶

Myanmar Agenda 21 – the Burmese government's policy on how to meet the requirements of Agenda 21 – lays out these policies for sustainable management of freshwater:

- Protecting surface and underground water from being polluted and lost;
- Ensuring effective water use;
- Conducting Environment Impact Assessments after completing major irrigation projects; and
- Encouraging private sector participation in tree-planting and soil conservation activities in watershed areas to sustain water resources.

It is worth noting that the government's intention to carry out Environmental Impact Assessments after completing major irrigation projects does not meet the United Nations' or Agenda 21's principles on how to conduct Environmental Impact Assessments, or international best practice in carrying out these assessments. Environmental Impact Assessments should always be carried out *before* a project takes place.

In the Irrawaddy Delta, the government creates polders and plants trees to improve filtration and prevent saltwater intrusion.

The government cites its water tax and embankment law as current water policies aimed specifically at making irrigation efficient. There is also a national programme for the development of irrigation and the rural water supply.¹⁸⁷

¹⁸⁶ Ibid.

¹⁸⁷ "Natural Aspects of Sustainable Development in Myanmar."

The Mekong River Commission

In 1995, the governments of Cambodia, Laos, Thailand and Viet Nam signed an agreement to cooperate for sustainable development in the Mekong River Basin. Burma is now a dialogue partner of the Commission, along with China.¹⁸⁸ This agreement does not commit Burma to any actions.

The Ramsar Convention on Wetlands

The Ramsar Convention on Wetlands, an international agreement that Burma signed in 2005, requires governments to designate at least one wetlands area of international importance to conserve. If there are ecological changes to the protected wetlands, the government of that country must inform the Convention. Governments also agree to work to use all their other wetlands sustainably. Each government can add areas to, or take them off, their list of preserved wetlands areas, but the government must tell the Convention it is doing this. The Convention as a whole can make recommendations to individual governments about wetlands conservation, but cannot punish governments for failing in their responsibilities.¹⁸⁹

Burma's only designated wetland is the 256-hectare Moyingyi Wetland Wildlife Sanctuary.¹⁹⁰

The National Environmental Performance Assessment – Water

The national EPA states that Burma “is perceived as a low water stress country”¹⁹¹; however, this does not take into account the increasing vulnerability of Burma's water supply because of the changing climate. The EPA is mainly concerned with increasing the availability of water for irrigation in order to increase paddy production, and states that “the volume of irrigation water storage capacity has increased 27 times since 1988”. The fact that fresh water supplies could be depleted because of this heavy use of irrigation is not mentioned. The EPA also cites improved access to drinking water, especially in rural areas, where access went from 50% to 78% between 1995 and 2003. The EPA acknowledges potential problems with Burma's development goals. It specifically states that a growth in hydropower can lead to sedimentation where rapid deforestation is also going on, and that increasing the size of the fisheries sector can lead to a decline in mangroves.

The EPA recommends that Burma study whether improving irrigation water management would produce more local benefits than building new water storage facilities, and also that the government study the environmental impact of building new reservoirs.¹⁹²

The National Biodiversity Strategic Action Plan – Water

The latest draft version of the NBSAP states that the government will take the

¹⁸⁸ Aquastat, "Myanmar."

¹⁸⁹ "Convention on Wetlands of International Importance Especially as Waterfowl Habitat (as Amended in 1982 and 1987)," ed. Scientific United Nations Educational, and Cultural Organisation (UNESCO) (Paris: 1994).

¹⁹⁰ "The List of Wetlands of International Importance (the Ramsar List)," (Gland, Switzerland: Secretariat of the Convention on Wetlands, 2011).

¹⁹¹ "Myanmar National Environmental Performance Assessment Report." Page iii.

¹⁹² Ibid.

following steps within five years of the final plan being passed.

For managing freshwater resources:

1. Use integrated water resource management, connecting different aspects of water management (such as irrigation, providing drinking water, and dealing with waste water) to one another, and to other relevant sectors.
2. Protect and restore all bodies of surface and ground water.
3. Promote river training activities.
4. Establish a proper sewage treatment system, and build waste water treatment facilities in selected cities and areas.
5. List more wetlands as wetlands of international importance.
6. Participate in the Water Resources Programme of Mekong River Commission.

For managing coastal and ocean resources:

1. Protect the coastal areas of Burma.
2. Stop fishing for species at risk until they are restored to their normal numbers or status.
3. Ban destructive fishing practices – dynamiting, poisoning, electrocution, and using unauthorized fishing methods and gears. Develop new practices to replace them.
4. Constantly patrol and encourage long-term monitoring of unauthorized fishing.
5. Prepare a strategy for the sustainable management of island ecosystems.
6. Establish a coastal and marine research centre, and study biodiversity among fish and aquatic species.
7. Prevent encroachment and settlement on the islands of the Myeik Archipelago.
8. Ensure that polluters pay for environmental damage they cause and reward those using cleaner methods.
9. Develop community-based conservation and management of resources, ensuring that local people can participate.

Burmese Government Structures Relating to Water

- The Ministry of Livestock and Fisheries
- The Ministry of Agriculture and Irrigation

Funding Water

Funding the sustainable development of water resources in Burma will continue to grow in importance as the impacts of climate change (described in Chapter 2) worsen

across the region. As with other resources, such as forests, agriculture, and energy, the needs of Burma's neighbours will influence development in Burma. The proposed tunnel from Burma's Salween River to Thailand's Bhumibol Dam is one recent example of a project that, if it goes ahead, would export water resources from Burma to a neighbouring country.¹⁹³ Funding for sustainable water resources in Burma should consider the long-term water needs of the people of Burma, as well as the needs of other countries in the region.

Energy

This section looks at the issues around energy and sustainable development. It explains the Burmese laws and ministries that deal with energy, and discusses the influence that international agreements, organisations, and funding could have on Burma's energy policies.

Why is energy important to sustainable development?

Energy comes from many sources. Some of these sources are *fossil fuels* (also called *hydrocarbons*), like coal, oil, and natural gas. These sources must be extracted from the earth before they can be used. There are also *renewable* sources of energy, such as water, the wind, wood and other plants (also known as *biofuels*), and the sun. Renewable energy resources are those energy sources that are naturally restored over a short period of time.

Energy is essential for development, and in many cases, it is the goal of particular development projects, like hydropower projects, biofuel plantations, coal mines, coal-powered electricity stations, and oil and gas pipelines. As energy moves from natural resources, like the sun, to forms people can use, like electricity, its price generally increases. In order to develop sustainably, the people of Burma will require energy – affordable, appropriate and life-supporting energy. All development projects require energy to build and operate, and the source, price, and impacts of that energy, both at the time the project is built and throughout its lifetime, affect whether the project is truly sustainable.

Extracting, transporting, producing (for example, converting coal to electricity), and using energy can all be damaging to the environment and to local communities. A country's use of fossil fuels contributes to its greenhouse gas emissions, releases other pollutants into the environment, and creates human health risks. Mining and the construction of oil and gas pipelines are also often destructive processes, as examined in the section on land and in the Yadana pipeline case study below.

Many current discussions on energy focus on switching from fossil fuels to renewable energy sources. Community and household renewable energy projects, such as solar panels that make electricity and biodigesters that make cooking gas, generally represent sustainable development. However, all projects involving renewable energy are not necessarily sustainable for the environment and local communities. For example,

¹⁹³ "Pm's Adviser Proposes Tunnel from Salween River to Tak Dam," *The Nation*, 13 February 2012.

- the creation of large dams to produce hydroelectric power frequently means flooding forests and ecosystems, and displacing entire communities and cultures;
- over-harvesting fuel wood can also lead to deforestation; and
- the growth of crops for biofuels can take up land that is needed for food crops, as discussed in the section on agriculture.

Energy efficiency policies – policies created to reduce the amount of energy used, either through introducing more efficient technologies, or through educating government officials and the public about conserving energy – can be less destructive alternatives to increasing energy production.

What is the law in Burma concerning energy?

Agenda 21 and the National Sustainable Development Strategy – Energy

Agenda 21 stresses developing new and renewable sources of energy and making energy distribution and use cheaper, more efficient, and less polluting. It also recognises that energy distribution should be equitable and provide enough energy to meet people's needs.

According to Agenda 21, governments should identify and develop clean, commercially viable energy sources and technologies; increase the supply of energy in order to power sustainable development; develop an appropriate framework for policy decisions about energy, the environment, and the economy (a framework that should include Environmental Impact Assessments); research and develop more energy-efficient technologies and renovate old power systems to make them more efficient; and improve energy efficiency through policies, technology, and public education - which should also promote new energy sources.¹⁹⁴ Governments should also minimise industrial pollution, and this effort should include “develop[ing], improve[ing], and apply[ing] Environmental Impact Assessments to foster sustainable industrial development”¹⁹⁵.

Agenda 21 also states that governments should preserve and plant forests to ensure that there is enough fuel wood and other biofuels for “the rural poor, in particular women and children”.¹⁹⁶

Myanmar Agenda 21 focuses on creating a system of energy planning, development, and management, and on improving energy conservation and energy efficiency.

Burma's National Sustainable Development Strategy sets out the following activities to be put into practice by 2014:

1. Ensure that energy policies take environmental concerns into account.

¹⁹⁴ "Agenda 21: The United Nations Programme of Action from Rio."

¹⁹⁵ Ibid. Section II, chapter 9.18.

¹⁹⁶ Ibid. Section I, chapter 7.51.

2. Introduce Environmental Impact Assessments *before* building dams or hydropower projects, and “encourage” new laws to make sure that EIAs are required for hydropower and other development projects.
3. Balance environmental concerns with meeting people’s needs for energy.
4. Develop hydropower resources in an economically and environmentally sound way.

The NSDS also includes these activities, to be put into practice by 2019:

1. Increase the use of renewable sources of energy such as solar energy, wind power, hydropower, and biofuels, and encourage the private sector to manufacture energy from these sources.
2. Maintain environmental quality in energy development.
3. Try to develop energy sustainably while meeting the country’s international obligations (such as exporting energy).¹⁹⁷

The Association of South East Asian Nations – Energy

The Association of South East Asian Nations (ASEAN) has generally focused more on increasing the amount of energy generated in Southeast Asia, and with connecting grids and pipelines across the ASEAN region, than with promoting efficiency or renewable energy. However, environmental sustainability and energy conservation are part of one of ASEAN’s international agreements, the Agreement on ASEAN Energy Cooperation. This means that ASEAN countries (including Burma) agree to conduct joint activities of interest and mutual research on energy conservation, and to share information (including supporting the development of better Environmental Impact Assessments where appropriate).¹⁹⁸

The ASEAN Plan of Action on Energy Cooperation for 2010 – 2015 lists the following strategies that are relevant to sustainable development:

- Energy Efficiency and Conservation
 - Develop energy efficiency policies and build countries’ capacity to carry them out;
 - Raise awareness about energy efficiency and conservation;
 - Promote good energy management practices, especially for the industrial and commercial sectors; and
 - Help secure funding for energy efficiency programmes.
- Renewable Energy
 - Increase the development and use of renewable energy, with the aim of ensuring that at least 15% of ASEAN’s energy is renewable;

¹⁹⁷ "National Sustainable Development Strategy for Myanmar."

¹⁹⁸ "Protocol Amending the Agreement on Asean Energy Cooperation," ed. Association of SouthEast Asian Nations (1997).

- Strengthen networks within ASEAN to raise awareness and share information about renewable energy;
 - Promote the use of renewable energy and technology made within ASEAN;
 - Promote a scheme to fund renewable energy;
 - Promote the commercial development and use of biofuels; and
 - Develop ASEAN as a hub for renewable energy.
- Coal and Clean Coal Technology
 - Enhance environmental planning and assessment of coal projects.

The Plan of Action calls on governments to establish national energy efficiency targets and plans to monitor these targets.¹⁹⁹

Burmese Government Structures Relating to Energy

- The Ministry of Energy

Funding Energy

Large energy projects in ethnic regions of Burma often involve foreign companies and are funded by neighbouring countries, like China, Thailand, and India. In many cases, much of the energy produced by a project in Burma will be sent to, and sold in, a neighbouring country, even when local communities in the project's region have insufficient access to energy and lack electricity.²⁰⁰ Funding sustainable development in Burma starts with the reconsideration of all current and proposed energy projects that supply the needs of neighbouring countries while harming or neglecting Burma's environment and people.

Economy (available online at www.bewg.org)

This section discusses issues concerning the economy and sustainable development. It specifically looks at the term "Green Economy" and what is meant by it. This section can be found online at www.bewg.org/.

¹⁹⁹ "2010 Asean Plan of Action on Energy Cooperation 2010 - 2015," ed. Association of Southeast Asian Nations (Mandalay: 2009).

²⁰⁰ Burma Environmental Working Group, "Burma's Environment: People, Problems, Policies."

Chapter IV: Development Project Case Studies

The issues around development projects and ways to advocate about sustainable development can be examined using case studies. Two relevant case studies are presented here. The first case study looks at advocating about the environment and human rights abuses once a development project has gone ahead; the second case study looks at ways to campaign to stop a proposed development project, or to make it more sustainable. Each case study explains why the development project is not sustainable, what campaigners have done, and what could be done in the future.

Speaking Out: The Yadana Pipeline

A Case Study on Ongoing Development Projects

The Yadana Pipeline provides a good example of a project where the project developers and the Burmese government have said that they are following guidelines for sustainable development, but the experience of local people (as recorded in Earthrights International's 2009 publication *Total Impact*²⁰¹) has been that the project is actually damaging the environment and hurting local communities. Advocacy has played a large part in exposing project abuses, and in some cases, it has led to positive changes and partial compensation for these abuses.

The Yadana Pipeline is a 60-km long overland pipeline that delivers natural gas from the Andaman Sea to Thailand. At the time, it was the largest foreign investment project in Burma's history, and today it continues to be a major source of income for the Burmese government – the Ministry of Energy estimates that the government receives 75% of the profits from the sale of the gas. The Yadana Pipeline was built, and is currently operated, by the French company Total and the American company Chevron (which took over the role of another American company, Unocal, on the pipeline project in 2005). The Thai and Burmese national oil and gas companies also own shares of the project.²⁰²

Identifying Problems

Environmental damage

The pipeline cuts through one of the largest areas of rainforest remaining in Southeast Asia, which is home to a number of rare plant and animal species. Building the pipeline involved cutting down a significant area of the forest, which has also degraded the forest near the cleared area. The construction of the pipeline also meant building roads through the rainforest for workers and Burmese troops involved in the construction to use. These roads have opened the forest up to poaching and illegal logging.²⁰³

Total has tried to compensate for the environmental damage caused by the pipeline by creating an environmental protection programme, which designated areas of land to

²⁰¹ Donowitz et al., "Total Impact: The Human Rights, Environmental, and Financial Impacts of Total and Chevron's Yadana Gas Project in Military-Ruled Burma (Myanmar)."

²⁰² "Background of the Yadana Pipeline," Earthrights International, <http://www.earthrights.org/campaigns/background-yadana-pipeline>.

²⁰³ Ibid.

be preserved. However, the programme was harmful to local people, because instead of setting aside untouched forests or wilderness areas, the programme confiscated land that local people used for farming, and prohibited them from using these lands. As the local communities practice shifting agriculture, this meant that their remaining land has been placed under more stress, as they have to farm the same land more often now; this means that even Total's environmental protection programme was causing environmental damage.²⁰⁴ There is no independent monitoring system set up to assess whether the environmental protection programme is delivering the benefits that Total claims it does.²⁰⁵

Environmental Impact Assessment

Environmental Impact Assessments (EIAs) are a basic principle of international environmental laws. EIAs are also standard practice within the oil and gas industry. Total commissioned an independent EIA in 1995 to look into the effect that building the proposed pipeline would have on the environment. The EIA was not made publicly available until a court case forced the companies involved in the pipeline's construction to hand over the EIA.

The EIA's most important flaw was that it did not include the participation of local people. Ethnic peoples living along the suggested routes for the pipeline depended on the environment for food, building materials, medicines, and other necessities. Best practice in sustainable development means that the people affected by a development project should have a say in whether and how that project is carried out. The people affected by the Yadana pipeline did not have a chance to make their voices heard.

The final EIA was also less accurate than it should have been. Had the local ethnic peoples who had lived in the area for many generations been consulted on what the environment was like, how it reacted to changes over time, and how any change in the environment would affect local communities, the EIA would have been much more accurate. The EIA also left out any assessment of the social impact the pipeline would have or of its impact on the human rights or land rights of local people.

Although the EIA on the Yadana pipeline was incomplete, it still uncovered real problems with the proposed plans for the pipeline. The EIA said that building the pipeline along any of three possible routes would have serious environmental impacts, especially on local ecosystems, biodiversity, and water supplies. In many cases, the EIA included advice on how to reduce these impacts, but Total did not generally take this advice. For example, the EIA suggested that the route cleared for the pipeline should be kept as narrow as possible, and that Total should take steps to limit human access to the area. However, the pipeline was built with no effort to minimise the amount of land being cleared, and Total built the roads around the pipeline in such a way as to give access to the Burmese military. The military has used these roads for logging and for hunting local animals, including endangered species.

²⁰⁴ Earthrights International, "Energy Insecurity," (Chiang Mai, Thailand: Earthrights International, 2010).

²⁰⁵ Donowitz et al., "Total Impact: The Human Rights, Environmental, and Financial Impacts of Total and Chevron's Yadana Gas Project in Military-Ruled Burma (Myanmar)."

Finally, publishing an EIA is an essential part of the EIA process. All affected communities need to understand the risks and impacts involved with a project. The fact that Total did not publish its EIA immediately makes it less legitimate.²⁰⁶

Human rights abuses

The pipeline passes through land occupied by several different ethnic groups, including the Karen, Mon, and Tavoyans. There have been numerous reports of land confiscation without paying compensation to those who owned or used the land - including cases where the lives of local people were threatened unless they signed papers saying they freely donated their lands - and the Burmese military has forced large numbers of local people to work on the pipeline. This forced labour is still going on, as local people are ordered to provide security along the pipeline, or to build huts and infrastructure and provide food for Burmese soldiers guarding the pipeline. There have also been cases where local people - sometimes those who are unable to provide forced labour - have been expelled from their villages, or have been raped, tortured or killed by the Burmese military.

Local people have also traditionally relied on the forest for resources, and so the loss and degradation of the forest to make way for the pipeline is harmful to their livelihoods.²⁰⁷

Advocating

What kind of advocacy has been done?

Community organisations and local and national NGOs have advocated for Total, Unocal and Chevron, and the Burmese government to take responsibility for, and address, the impacts of the Yadana Pipeline ever since the pipeline was first proposed. One of the major NGOs involved has been EarthRights International (ERI), which has focused most of its advocacy on the companies involved in the construction of the pipeline, rather than on the Burmese government. This advocacy has included publicly calling on the companies to withdraw from Burma and raising awareness in the international media about the Yadana project and its impacts.

ERI has also worked with local communities to document the environmental and human rights abuses along the pipeline, and has testified to the governments of the United States and the European Union – the home governments of the companies involved in the project – about these abuses.²⁰⁸ In response, Total has been forced to publicly defend itself against ERI's accusations, though the company has yet to change many of its practices. Some of Total's investors and at least one representative of the United Nations have also expressed their concerns about abuses along the Yadana Pipeline to Total.²⁰⁹

²⁰⁶ Ibid.

²⁰⁷ Ibid.

²⁰⁸ "Press Coverage: Chevron and the Yadana Pipeline," Earthrights International, <http://www.earthrights.org/campaigns/press-coverage-chevron-and-yadana-pipeline>.

²⁰⁹ Paul Donowitz, Naing Htoo, and Matthew F. Smith, "Total Impact 2.0: A Response to the French Oil Company Total Regarding Its Yadana Natural Gas Pipeline in Military-Ruled Burma (Myanmar)," (Chiang Mai, Thailand: Earthrights International, 2009).

A number of Burmese villagers who suffered human rights abuses in the construction of the pipeline - including eviction from their lands, forced labour, rape, torture, and the murder of loved ones - sued Unocal in a United States court. Unocal agreed to pay compensation to the villagers.²¹⁰

What can be done in the future?

It may be possible to advocate directly to the government of Burma and operating companies about the environmental and human rights abuses still taking place, and to further raise awareness of these abuses in local and regional media sources, especially where Burma's laws have been broken.

It is possible to advocate to the governments of countries where the companies still involved with the project are based, or with the governments of countries that benefit from the project. In this particular case, because the gas from the Yadana Pipeline is sold to Thailand, and because the Thai national oil and gas company owns shares of the Yadana project, the Thai government has some influence over the project. Advocating to the Thai government and joining advocacy efforts with Thai politicians may be possible. For example, Kraisak Choonhavan, an MP from the Democratic Party and chairman of the ASEAN Inter-Parliamentary Myanmar Caucus, has publicly opposed the Yadana project and other development projects that displace people in Burma, and has criticised both this and the previous Thai government for catering to corporate interests in their dealings with Burma.²¹¹

For further information on past, current, and future advocacy on the Yadana pipeline please contact ERI or visit the ERI webpage (www.earthrights.org/).

People Power: The Myitsone Dam

A Case Study on Proposed Development Projects

The Myitsone Dam provides a hopeful example of the positive effect advocacy can have on sustainable development issues.

The Myitsone Dam is a proposed hydroelectric dam that would be built at the meeting of the Mali and N'Mai rivers, close to Myitkyina, the capital of Kachin State. The dam was being developed by the Ministry of Electric Power, the Asia World Company Ltd. of Burma, and the China Power Investment Corporation. The Myitsone Dam was planned to be the largest of seven dams: an overall investment of US\$20 billion for China.²¹² Most of the electricity produced would have been exported to China, not used locally.

Because of the environmental and human rights concerns raised by activists and because of the amount of public attention these concerns received, the construction of

²¹⁰ "Doe V. Unocal Case History," Earthrights International, <http://www.earthrights.org/legal/doe-v-unocal-case-history>.

²¹¹ "Burmese Opposition in Thailand Concerned About New Thai Government," *Mizzima* (2011), http://www.burmacentrum.nl/index.php?view=items&cid=4%3Aanieuws&id=409%3Aburmese-opposition-in-thailand-concerned-about-new-thai-government-&pop=1&tmpl=component&print=1&option=com_flexicontent&Itemid=15.

²¹² International Rivers, "The Myitsone Dam on the Irrawaddy River: A Briefing," International Rivers, <http://www.internationalrivers.org/node/6876>.

the dam has been suspended for now; no construction is to go ahead until 2015. Some experts also think that the Burmese government also did not want to be seen to be damaging Burma's interests in order to please China, as the government of Burma has been criticised for being influenced too much by China's government.²¹³

Identifying Problem

Environmental damage

The area around the proposed dam site already suffers from a number of environmental problems, including deforestation, erosion, and the presence of excess salt, silt, and pollution in the water. The dam would worsen all of these problems.²¹⁴ In addition, the Myitsone Dam would flood an area larger than Singapore in one of Burma's and the world's most important biodiversity hotspots,²¹⁵ and it is expected that it would reduce the amount of water available for ecosystems and people downstream.

Environmental Impact Assessment

The China Power Investment Corporation (CPI) arranged for an independent Environmental Impact Assessment (EIA) for the Myitsone Dam project. The EIA was finished in 2010 and published in 2011. It was mostly the work of two organisations: the Changjiang Institute of Survey, Planning, Design and Research (CISPDR) from China, and the Biodiversity and Nature Conservation Association (BANCA) from Burma. CISPDR was in charge of looking at the overall impact on the environment. BANCA produced a separate report, looking at the impact of the project on biodiversity. BANCA's experts also studied the current state of the environment in the area.

The EIA recommended that the dam go ahead as planned, and said that the impact on the environment would be minimal. However, the report from BANCA, which was supposed to help shape the EIA's conclusions, said that the impact would be severe, and recommended that two smaller dams be built in other locations instead.

CISPDR reports that the EIA was conducted according to the standards used by China, the World Bank, and the Asian Development Bank and included a survey of local residents opinions of the development of the dam.²¹⁶ However, NGOs and the Burmese government have serious doubts about whether the EIA was truly independent and accurate. In September 2011, CPI's control over the EIA was publically questioned by Burma's Minister for Industry.

CPI began construction before the EIA was finished, which is against the principles of an EIA.²¹⁷

²¹³ Rachel Harvey, "Burma Dam: Why Myitsone Plan Is Being Halted," (2011), <http://www.internationalrivers.org/en/node/6881>.

²¹⁴ International Rivers, "The Myitsone Dam on the Irrawaddy River: A Briefing."

²¹⁵ Aquastat, "Myanmar."

²¹⁶ Planning Changjiang Institute of Survey, Design and Research, "Environmental Impact Report of Hydropower Development in Upper Reaches of Ayeyawady River," (Wuhan City, China: Changjiang Institute of Survey, Planning, Design and Research, 2010).

²¹⁷ International Rivers, "The Myitsone Dam on the Irrawaddy River: A Briefing."

Human rights abuses

The Burmese government claimed that the Myitsone Dam would displace slightly more than 2,000 people, and that these people would be moved into new, fully-equipped villages. However, other organisations disagree. The United Nations' Food and Agriculture Organisation estimates that the dam construction would actually displace around 10,000 people.²¹⁸ Daw Aung San Suu Kyi has said that the dam project has already displaced 12,000 people, and that these people received no compensation.²¹⁹

No public consultation was carried out with local people about whether and how this project should go ahead.²²⁰

Advocating

What kind of advocacy has been done?

The successful campaign to stop construction of the Myitsone Dam was led by grassroots groups, many of them from ethnic communities, especially the Kachin.²²¹ Some of the actions taken included directly and repeatedly contacting both the Burmese and the Chinese governments, and raising public awareness within and outside Burma about the issues with the construction of the dam. The dam attracted a high degree of national and international attention, which put a lot of pressure on the government to stop construction.²²² Daw Aung San Suu Kyi's public support for advocacy groups also helped the campaign.²²³

What can be done in the future?

As late as March 2012 – five months after the Burmese government suspended the dam – advocacy groups are raising questions as to whether construction on the dam has really stopped.²²⁴ Even if construction has stopped, the Myitsone Dam project could resume after 2015, or if the Burmese government reverses its decision. It is possible that the Burmese government would respond to a similar public campaign again and agree to stop construction a second time, but it would probably require the same high amount of public pressure that led to the suspension in the first place. Activists will need to keep the public's attention on Myitsone Dam.

²¹⁸ Aquastat, "Myanmar."

²¹⁹ Aung San Suu Kyi, "Irrawaddy Appeal," (Rangoon: International Rivers, 2011).

²²⁰ Harvey, "Burma Dam: Why Myitsone Plan Is Being Halted."

²²¹ "U.S. Embassy Cables: How Rangoon Office Helped Opponents of Myitsone Dam," *The Guardian*, 30 September 2011.

²²² Grace Mang, "Lessons from Myitsone Dam in Burma," (2011), <http://www.internationalrivers.org/en/blog/grace-mang/2011-9-30/lessons-myitsone-dam>.

²²³ "Myanmar to Stop Construction of Controversial Dam," (2011), <http://www.internationalrivers.org/en/node/6887>.

²²⁴ "Villagers from Myitsone Dam Relocation Camp Still Can't Go Back Home," (Kachin Development Networking Group, 2012).

Chapter V: Resources for Advocacy

The current political and economic changes in Burma mean that this is a crucial time for sustainable development. Burma's economic and political links with the rest of Asia have been increasing over time, and Burma will chair the Association of South East Asian Nations (ASEAN) in 2014. It is also possible that recent political changes will lead the United States and the European Union to lift economic sanctions against Burma's government. This will open up opportunities for Burma to receive international development funding from other governments and international financial institutions.

These changes may mean that development in Burma takes place at a faster rate, and that the government of Burma has a greater stake in international opinions of its policies. Several major development projects are planned or are already taking place, including the Dawei deep sea port and industrial centre and dams planned along the Irrawaddy, Mali Hka, and N'Mai Hka rivers; the Myitsone dam was going to be the largest of these, before its construction was suspended. Effective advocacy is important to ensure that Burma's future development is sustainable and answers the needs of Burma's environment and all Burma's people – including Burma's ethnic communities.

This chapter provides resources for advocacy on sustainable development. It gives suggestions for assessing changes in Burma's environmental laws and policies; explains which organisations or ministries within Burma's government are responsible for aspects of development; and directs readers to resources containing further information.

Assessing Burma's Changing Laws and Policies – A Guide

Burma's government policies are changing. In order to judge whether the changes are beneficial or harmful, and how new policies can be improved, campaigners can use these suggestions as a start toward creating their own assessment of new government policies and laws.

- *Process:* How was the new law or policy drafted and discussed? Does it take into account the voices of the people of Burma, including ethnic communities, women, youth, and other key groups?
- *Content:* Will the law or policy include requirements for the government or limits on the policies the government can put in place? Or will it only be binding on the people of Burma? Does the new law consider the needs of the people of Burma or Burma's neighbours?

For policies on EIAs – Will the new law or policy require EIAs for development projects? Will it set out standards for EIAs, and do these standards agree with international best practice? Will it require EIAs to take the impact of a project on land, water, forests, biodiversity, and the lives of local people into account? Will EIAs be designed to advance business and government interests, or the interests of the environment and local communities?

For policies on biodiversity - Will the new law or policy set aside protected areas? Will it also protect individual species, or only areas as a whole? Will it

address the causes of biodiversity loss (including land degradation and pollution outside protected areas, as well as unchecked development)? Will it include punishments for pollution or unsustainable use of land, or other actions that harm biodiversity *indirectly*?

For policies on land – Will the new law or policy say anything about land tenure or land conservation, or have any indirect impact on these issues? Will it give local communities a say in how their land is used, whether or not they have legal title to the land? Will it result in people being displaced? Will it empower people?

For policies on forests – Will the new law or policy set aside protected forests, and if so, how will these forests be managed? How much logging will it allow in forests that are not protected? Will it protect forests in a way that meets the needs of ethnic communities, and allows local people access to forest resources?

For policies on agriculture – Will the new law or policy set limits on clearing land for agriculture, or on the use of chemical fertilisers or pesticides? Will it restrict certain kinds of agriculture? What impact will it have on small-scale farmers and on agribusiness?

For policies on water – Will the new law or policy require water conservation, especially in irrigation? Will it address issues like land and forest conservation in terms of their impact on the water supply?

For policies on energy – Will the new law or policy require more efficient use of energy? Will it require or encourage the use of renewable energy, and if so, how will this energy be funded? Does it include measures to lessen the environmental impact of extracting, transporting, producing, and using energy? What impact will it have on local communities in areas where energy is extracted, transported, and produced (including on these communities' land rights, livelihoods, security, and health)?

For economic policy – Does the new law or policy encourage sustainable development?

- *Enforcement:* Which organisations within the government will be in charge of carrying out the law or policy? Do those organizations have the capacity, resources and support to truly enforce the law? How will the government enforce the law? How will carrying out the law or policy be funded? What will happen if the government itself goes against the provisions of the law or policy? If the new law or policy is based on an international agreement, does the international organisation have the power to take action if the government of Burma breaks the agreement? Will local communities be involved in enforcement?
- *Monitoring:* How will it be clear whether the government is enforcing the law, and whether the law is being followed? Will local communities be involved in monitoring?

The most important new law under discussion right now is a proposed environmental conservation law. For a number of years, Burma's government has been discussing this law, but the law has not yet been passed. At the time this report was written, the

president had approved the law, and it had been sent to the Pyidaungsu Hluttaw for its approval;²²⁵ the Pyithu Hluttaw was still discussing possible changes to the proposed law.²²⁶

According to the government, the draft law supports the green economy, and includes the principles of a “Green Economy” in all sectors of development. The government also claims that the law ensures that development projects will be carried out according to environmental management plans in order to minimise environmental impacts, and that the implementation of development projects will be monitored.²²⁷

For the environmental conservation law to be effective should adequately address all of the topics listed in the guidelines: EIAs, biodiversity, land, forests, agriculture, water, energy and the economy.

Key Burmese Government Structures for Sustainable Development Advocacy

For each aspect of sustainable development, one or several government ministries may be involved in creating policies and seeing that these policies are carried out. These are the ministries and government agencies whose policies are most likely to have an impact on the environment and on sustainable development. After the description of each ministry, there is a list of the aspects of sustainable development that ministry’s policies affect.

National Commission for Environmental Affairs

The National Commission for Environmental Affairs (NCEA) develops Burma’s broad, overall policies on the environment and resource use; controls pollution by putting laws in place and enforcing them; conducts public education programmes on environmental issues; is partially responsible for carrying out the provisions of the NBSAP; and works with international groups on environmental issues.

The NCEA is chaired by the Minister of Environmental Conservation and Forestry, but is technically independent of that ministry. There are four committees within the NCEA: the Committee on Conservation of Natural Resources; the Committee on Control of Pollution; the Committee on Research, Information and Education; and the Committee on International Cooperation.²²⁸

One issue is that the NCEA does not have the power to make different ministries and agencies work together on environmental issues.²²⁹ However, the proposed environmental conservation law may change that.

Important for: All aspects of sustainable development

²²⁵ Ministry of Environmental Conservation and Forestry, "Green Development Initiative in Myanmar."

²²⁶ *Second Regular Session of Pyithu Hluttaw Goes on 49th Day*, Second Regular Session, 21 November 2011.

²²⁷ ———, "Green Development Initiative in Myanmar."

²²⁸ Thu, "National Biodiversity Strategic Action Plan Myanmar."

²²⁹ "Myanmar National Environmental Performance Assessment Report."

The National Environmental Conservation Committee

The NECC is chaired by the Minister of Environmental Conservation and Forestry, and is made up of deputy ministers from other departments. The NECC has more power to address environmental issues at the local level (for example, by working directly with local committees) than the NCEA does. The NECC's main functions are to "implement greening activities and prevent environmental degradation in the country", which includes:

- Preventing land degradation from water and soil erosion (whether due to natural causes or human activities)
- Controlling deforestation and conserving watersheds
- Addressing environmental damage from shifting cultivation and forest fires
- Preventing the buildup of silt in rivers, and blockades of rivers and creeks, caused by illegal logging and mining activities, but only where this silt would affect dams and hydroelectric power plants (even though excess silt can also damage the local environment and cause floods).

The NECC also has a broad mandate "to carry out all other activities relating to environmental protection and conservation".²³⁰

Important for: All aspects of sustainable development

Ministry of Environmental Conservation and Forestry

The Ministry of Environmental Conservation and Forestry (which used to be just the Ministry of Forestry) has to pre-approve development projects and economic activity in forestry areas.²³¹ This ministry manages protected forest areas, sets limits on logging, and has some responsibility for wildlife conservation.²³² The ministry is partially responsible for carrying out the provisions of the NBSAP – in particular, managing the protected land scheme and handling law enforcement in this area.

Important for: Biodiversity, forests

The Committee for Protection of Wildlife and of Natural Areas

Made up of government officials and experts and chaired by the Minister of Environmental Conservation and Forestry, this committee coordinates and provides advice about the implementation of the Wildlife, Wild Plant, and Natural Areas Law of 1994. The Minister sets up a body to manage each protected area.

Important for: Forests

Ministry of Livestock and Fisheries

The Ministry of Livestock and Fisheries is largely responsible for conserving biodiversity among marine and freshwater species. It bans environmentally damaging methods of fishing²³³ and sets an annual limit on commercial fishing in Burma, but

²³⁰ _____, "National Biodiversity Strategic Action Plan Myanmar."

²³¹ "The Forest Law."

²³² _____, "National Biodiversity Strategic Action Plan Myanmar."

²³³ National Commission for Environmental Affairs, "Fourth National Report to the United Nations Convention on Biological Diversity."

has little power to enforce this limit and stop illegal fishing.²³⁴

Important for: Biodiversity, water

Ministry for the Progress of Border Areas and National Races and Development Affairs

The Ministry for the Progress of Border Areas and National Races and Development Affairs is largely responsible for development projects in border areas and ethnic areas.²³⁵

Important for: Land

Department of Human Settlement and Housing Development

The Department of Human Settlement and Housing Development manages urban and regional planning, property development, and water sanitation; manages government land, buildings, and housing; and assists the Ministry for the Progress of Border Areas and National Races and Development Affairs with border area development projects.²³⁶

Important for: Land

Ministry of Mines

The Ministry of Mines is made up of a number of government mining enterprises, covering mining for different materials. It also contains the Department of Mines. The Department of Mines is the part of the ministry that sets mining policy (including any environmental policies), decides whether applications for mining projects can go ahead, and collects royalties from mining companies.²³⁷

Important for: Land (mining)

The Ministry of Agriculture and Irrigation

The Ministry of Agriculture and Irrigation's purpose is to increase crop production. This Ministry provides financial incentives for growing crops, especially certain commercial crops, and promises special incentives for foreign investors in agriculture.²³⁸

The Ministry contains a number of separate departments. The most important of these are:

- The Irrigation Department, which is responsible for large irrigation projects using surface water, including major dams. This department studies the possible effects of proposed irrigation projects; designs and builds irrigation projects; and takes care of operating and maintaining irrigation works.

²³⁴ Thu, "National Biodiversity Strategic Action Plan Myanmar."

²³⁵ "The Development of Border Areas and National Races Law," ed. The State Law and Order Restoration Council (1993).

²³⁶ "Human Settlement and Housing," Myanmar Online Data Information Network Solutions, http://www.modins.net/myanmarinfo/resource/human_housing.htm.

²³⁷ "Organisation Chart of the Ministry," <http://missions.itu.int/~myanmar/e-com/MINES/MINES/myanmar.com/Ministry/Mines/mines/Organisation%20chart.htm>.

²³⁸ "Ministry of Agriculture," Ministry of Agriculture and Irrigation, http://www.moai.gov.mm/index.php?option=com_content&view=article&id=27&Itemid=24.

- The Water Resources Utilization Department, which is responsible for small-scale irrigation and for managing groundwater.
- The Settlement and Land Records Department, which deals with land tenancy issues and, in some cases, community forests.
- The Agricultural Planning Department, which plans, monitors, and evaluates all agricultural projects.²³⁹

Important for: Agriculture, water, land

National Water Committee

The National Water Committee handles water management disputes and institutional issues related to water.²⁴⁰

Important for: Water

The Ministry of Health

The Ministry of Health is partially responsible for carrying out the provisions of the NBSAP.

Important for: Biodiversity

The Ministry of Energy

The Ministry of Energy deals with issues of energy and fuel. It includes national petrochemical companies. The Ministry's priorities are increasing the supplies of electricity and other forms of energy for development; promoting energy efficiency; and increasing the production of hydroelectric power.²⁴¹

Important for: Energy

Key Organisations and Resources for Sustainable Development Advocacy

For a list of Burma and issue related advocacy organizations and advocacy resources, please see the BEWG website (www.bewg.org).

²³⁹ Aquastat, "Myanmar."

²⁴⁰ "Myanmar National Environmental Performance Assessment Report."

²⁴¹ "Energy Efficiency, Conservation, and Sustainability," Ministry of Energy, <http://www.energy.gov.mm/energyefficiency.htm>.

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