



Addressing the multiple threats of environmental crimes in East Asia and the Pacific

2009-2012 Strategy for Technical Assistance

Bangkok - March, 2009

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1. Challenges to environment

Environmental crimes directly affect the well-being of the world, in different ways.

Forests and oceans are the biggest retainers of carbon dioxide, which is responsible for global warming. By reducing their carbon sequestration capacities, environmental crimes fuel the ongoing process of climate change, which results into droughts, floods, extreme weather and altered habitats.

Environmental crimes particularly affect economically-marginalised communities, since their livelihoods are more immediately linked to dependence on natural resources. The direct effects of environmental crimes become immediately visible through increased poverty.

Moreover, the loss of income from legal trade of natural resources erodes the revenue base of governments and undermines their ability to implement their development programmes and to maintain the rule of law.

By over-exploiting forests, wildlife, water (marine and inland) resources, and smuggling hazardous wastes and ozone-depleting substances (ODS), criminal groups undermine the stability of the ecosystems, and their ability to provide clean air, hydrological stability and food provision for future generations.

Therefore, fighting environmental crimes is a clear responsibility of national governments and international organizations in their pursuit towards human security.

The trade in **illegally sourced timber** hampers the economic, social and environmental benefits that forests would otherwise bring. Southeast Asia is undergoing the fastest deforestation in the world, especially in Indonesia, Philippines, Cambodia, Myanmar and Timor-Leste. It is estimated that the percentage of illegally logged timber (out of the total harvest) in the Mekong Sub-Region countries is 90% in Cambodia, 45% in Lao PDR, 40% in Thailand and 20-40% in Vietnam¹.

This is why, according to the World Bank, illegal logging generates an enormous amount of illegal turnover ‘completely outside the control of fiscal authorities and free to spread corruption contagion throughout the economy’.²

Indeed, the illegal logging industry depends on the complicity of officials across the entire production chain, from allocation of forest concessions to harvesting and transportation within and eventually outside national borders. Even where “kingpin” perpetrators are apprehended, their influence amongst the higher echelons of public administration means that they are

Country	Annual change rate in forest area	
	1990-2000	2000-2005
	%	%
Philippines	-2.8	-2.1
Cambodia	-1.1	-2
Indonesia	-1.7	-2
Myanmar	-1.3	-1.4
Timor-Leste	-1.2	-1.3
Malaysia	-0.4	-0.7
Lao PDR	-0.5	-0.5
Thailand	-0.7	-0.4
Viet Nam	+2.3	+2
Total Southeast Asia	-1.2	-1.3
Solomon Islands	-1.5	-1.7
Papua New Guinea	-0.5	-0.5
Total Oceania	-0.21	-0.17
Total Asia	-0.14	+0.18
Total Africa	-0.64	-0.62
Total World	-0.22	-0.18

Table 1. Forested Areas. Source: State of the World's Forest 2007, FAO

¹ Seneca Creek Associates and Wood Resources International, “Illegal Logging and global Wood Markets: The competitive impacts on the US Wood products”, November 2004. For a in depth review of estimates of illicitly sourced timber see Schloenhardt, Andreas, The illegal trade in timber and timber products in the Asia-Pacific region, Research and Public Policy Series No.89, Australian Institute of Criminology, 2008.

² World Bank, “The Many Faces of Corruption: Tracking Vulnerabilities at the Sectoral Level”, April 2008, pp 92-93.



rarely prosecuted or significantly penalised,³ which additionally points to a compromised justice sector.

Therefore, despite some commendable national efforts, the deforestation rate remains high, and it becomes clear that one of the main factors leading to the disruption of forests is undoubtedly represented by the illegal logging through criminal syndicates. The extent of illegal logging, coupled with weak national capacities to enforce national and international regulations, represent a major threat to sound and sustainable development.

Illegal fishing is another serious concern that must be rapidly addressed in Asia and the Pacific in order to avoid further poverty, food insecurity, and economic stagnation. While at global level fishery production is shrinking, Asia is the region with the highest amount of traded production (marine and inland flora and fauna) and a growth rate of catches that is second only to the Pacific. China is by far the world’s largest fishery producer (FAO 2007)⁴, but the increase in the catch-rate for countries such as Cambodia, Myanmar and Papua New Guinea is alarming.

The illegal and unregulated activities of criminal syndicates are not only causing the depletion of the fish stock – which might lead to a collapse in some fish populations– but they are also affecting the diversity in flora and fauna, as it is demonstrated by deteriorating condition of the Southeast Asian coral reefs. The ecological impact would have significant adverse economic consequences, and the marine ecosystem would be affected in its capacity of storing carbon.

The increasing demand for exotic pets, rare foods, and traditional medicines at the global level has fuelled a significant amount of **wildlife trafficking** in Southeast Asia. The availability of reliable statistics on the phenomenon is still poor, but according to TRAFFIC International (a joint programme of WWF and IUCN which monitors the licit trade in wildlife) the global value of the imported illegal wildlife in the early 1990s was around USD 160 billion. It is almost impossible to calculate the real figure of illicit wildlife trade, but the figure must run into hundreds of millions of dollars⁵. It is estimated that in many countries of Southeast Asia some large animal species, such as elephant, tigers, and wild cattle have become extinct or virtually extinct, due to hunting and wildlife trade.

Studies reveal that Southeast Asia is a major hub for a globally significant and rising problems of **illegal trade in ODS** and **illegal trade in wastes**. In 1997 parties to the Montreal Protocol had established a licensing system to control illegal trade involving annual import quotas and designated importers, yet the trade is still significant. Based on independent studies, the Environmental Investigation Agency (EIA) reported between 2000 and 2007 numerous instances of Chinese-produced ODS turning up on the black market around the world – from South East Asia and the Middle East to South America. The scale of the problem is exacerbated by the discrepancies in official customs data: for instance, the reported exports from China to Indonesia of

Country	Growth in captures in marine and inland waters	
	1995-2000 (%)	2000-2006 (%)
Cambodia	176.1%	69.7%
China	35.2%	1.3%
Indonesia	13.2%	15.6%
Malaysia	15.8%	0.5%
Myanmar	45.4%	83.6%
Philippines	1.8%	22.3%
Thailand	-1.1%	-7.4%
Vietnam	49.6%	20.7%
Total Asia	13.0%	4.7%
Papua New Guinea	183.7%	146.0%
Total Oceania	5.5%	14.5%
Total Americas	-6.7%	-12.7%
Total Africa	14.4%	2.9%
Total World	3.5%	-3.9%

Table 2. Statistical query through FIGIS data-base, FAO, Dec. 2008.

³ Telepak and the Environmental Investigation Agency, “The Thousand-Headed Snake: Forest Crimes, Corruption and Injustice in Indonesia”, March 2007, pp 1, 3. <http://www.eia-international.org/files/reports135-1.pdf>

⁴ FAO, Year Book of Fishery Statistics, 2007

⁵ TRAFFIC, <http://www.traffic.org/trade/>, 20 March 2009



Chlorofluorocarbons (CFCs) in 2004 were more than 1,000 tonnes higher each year than Indonesia’s reported imports of CFCs from China⁶. Official estimates from the reports to the Basel Convention suggest that there are at least 8.5 million tonnes of hazardous waste moving from country to country every year. Much of this amount is a source of business and many countries are unable to deal with these wastes properly. In a project carried out by 13 European countries, over half of the waste shipments verified were found to be illegal⁷.

Much of this illicit commerce is facilitated by porous borders. Moreover, environmental crime laws are usually weakly enforced, have low penalties and are not well known amongst enforcement officers. Hence, it is easy to see why trafficking of natural resources is of great interest to international criminal syndicates. Criminal groups that traffic in drugs, weapons and humans are increasingly attracted to environmental crime, since it represents potentially high profits combined with low risk⁸.

Most of the countries in the region have agreed to ratify the regulations envisaged by the most relevant treaties and convention on international standards for the protection of flora, fauna, land, wetland, biodiversity (see Table 3). Nevertheless, even national logging bans and enforcement have proven ineffective, shifting the source country for illegal logs rather than reducing the overall extent of the phenomenon.

Country	CBD	UNFCCC	Kyoto Protocol	CCD	CITES	Convention on wetlands	Ramsar Convention	Basel Convention	Montreal Protocol
Cambodia	X	X	X	X	X	X	X	X	X
China	X	X	X	X	X	X	X	X	X
Indonesia	X	X	X	X	X	X	X	X	X
Lao PDR	X	X	X	X	X	X	X	X	X
Malaysia	X	X	X	X	X	X	X	X	X
Myanmar	X	X	X	X	X	X	X	X	X
Philippines	X	X	X	X	X	X	X	X	X
Thailand	X	X	X	X	X	X	X	X	X
Timor-Leste	X	X		X					
Viet Nam	X	X	X	X	X	X	X	X	X

Table 3. Ratification of relevant international convention and treaties in selected countries in EAP

2. Mandate of UNODC

In 2007, the Commission on Crime Prevention and Criminal Justice in its resolution 16/1, “International cooperation in preventing and combating illicit international trafficking in forest products, including timber, wildlife and other forest biological resources” strongly encouraged Member States to cooperate at bilateral, regional and international level to prevent and combat and eradicate these illicit trafficking through the use of the United Nations Convention against Transnational Organized Crime (UNTOC) and the United Nations Convention against Corruption (UNCAC).

UNTOC: The General Assembly has affirmed the relevance of the UNTOC in fighting illicit trafficking in natural resources in its resolution 55/25 of 15 November 2000 where it stated that the UNTOC “constitutes an effective tool and the necessary legal framework for international cooperation in combating such criminal activities as illicit trafficking of protected species of wild flora and fauna, in furtherance of the principle of the Convention on International Trade in Endangered Species of Wild Flora and Fauna” (CITES).

UNCAC: When the different forms of trafficking mentioned above are intermingled with corrupt practices, the use of the United Nations Convention against Corruption becomes a legal basis for international cooperation. This Convention, which is the first global, legally-binding instrument

⁶ Environmental Investigation Agency, ‘Controlling the ODS Trade: The need to strengthen licensing systems’, EIA Briefing, March 2005, in *Environmental Crime: A threat to our future*, EIA report by Debbie Banks, Charlotte Davies, Justin Gosling, Julian Newman, Mary Rice, Jago Wadley and Fionnuala Walravens. <http://www.eia-international.org/files/reports171-1.pdf>

⁷ Basel Convention Secretariat – UNEP, ‘Illegal traffic under the Basel Convention’, 2007

⁸ Interpol Pollution Crimes Working Group, Assessing the Links between Organised Crime and Pollution Crimes. June 2006.



against corruption, builds on the precedent of the Convention against Trans-national Organized Crime and, thus, incorporates a substantial part of the latter’s provisions on international cooperation. The relevance of UNCAC lies in the promotion of an extensive set of preventive measures that help establishing integrity, transparency and accountability in the national institutions involved (e.g. law enforcement authorities, environmental agencies, etc).

	Cam.	Chi. ⁹	Ind.	Lao.	Mal.	Mya.	Phi.	Tha.	Timor	Viet.
UNTOC	12/12/05	23/09/03	Signed 12/12/00	26/09/03	24/09/04	30/03/04	28/02/02	Signed 13/12/00		Signed 13/12/00
UNCAC	05/09/07	13/01/06	19/09/06	Signed 10/12/03	26/09/08	Signed 02/12/05	08/11/06	Signed 09/12/03	Signed 10/12/03	Signed 10/12/03

Table 4. Ratification (or signature) status of UNTOC and UNCAC conventions

3. Value added of UNODC interventions in East Asia and the Pacific

In dealing with environmental crime UNODC has adopted a comprehensive and multidisciplinary response, by pooling together its legal, analytical and technical expertise into an integrated and holistic approach. This approach does the following: it enhances capacity in data collection and analysis; it strengthens legislation and regulatory frameworks, as well as international cooperation in criminal matters, through legal advisory services; it promotes sustainable livelihoods through development assistance; it improves monitoring systems and facilities; and it trains law enforcement and judicial officials.

From a thematic point of view, UNODC response can take advantage of its comparative advantage to serve the purpose of making government institutions less vulnerable to the multiple challenges of environmental crime and to ensure that each link in the vicious chain is addressed. Due to its trans-boundary and multi-faceted nature, environmental crime needs a comprehensive international response that requires expertise in different sectors, from counter-narcotics to anti-corruption, from money laundering to forensics. UNODC plays a unique role in tackling all of these criminal phenomena, through global programmes and country-specific initiatives.

For this reason, the successful ongoing working relationship with public security agencies and the highly specific experience that UNODC has gained in the region will bring a significant value added to the technical assistance that the Regional Centre for East Asia and the Pacific (RCEAP)¹⁰ is committed to provide. The specific fields of expertise can be clustered in: i) law enforcement and border control; ii) anti-corruption and criminal justice; and iii) sustainable development.

3.1 Law enforcement and border control

During the last decade, UNODC contributed to strengthen cross-border cooperation through the Border Liaison Office (BLO) mechanism, which has increased the capacity of government law enforcement, prosecution, relevant institutions, and civil society to prevent, investigate and prosecute cases of cross-border crimes. The UNODC programme dealing with BLO mechanism to countries of the Greater Mekong Sub-Region was considered a hallmark example of multilateral law enforcement cooperation, and led to calls from participating states to expand the mandate of BLO mechanism to include other transnational organized crime (TOC).

To date, UNODC has successfully completed the following activities:

⁹ China ratified both conventions with reservations

¹⁰ RCEAP is located in Bangkok, Thailand, and within its mandate works in over 30 countries and non-metropolitan territories. The Regional Centre carries out regional and national projects, and provides advisory services to complement national responses throughout the East Asia and Pacific region. The country offices in Lao PDR, Myanmar and Viet Nam are responsible for the development of sub-regional programmes in coordination with RCEAP. The project Offices in Cambodia, China and Indonesia report directly to RCEAP.



- *Development of cross-border law enforcement cooperation in East Asia*
- *Consolidation and Enhancement of the BLO in East Asia*
- *Global Computer Based Training (CBT) Programme*
- *Precursor Control Programme in East Asia*
- *Legal Advisory Programme* to deliver legal assistance and expertise to countries, encompassing the provisions of the United Nations instruments against drugs, human trafficking, migrant smuggling and environmental crimes.

It is essential to capitalise on cooperative mechanisms already in place and to extend cross-border cooperation to address environmental crimes. The existing BLO mechanism represents an outstanding added value for UNODC future activities in the field of environmental crimes.

3.2 Anti-corruption and criminal justice

National authorities are increasingly aware of the ties between environmental crimes and other criminal phenomena, such as corruption and money laundering. Indonesia, for instance, has sought to respond to forest crimes through an anti-corruption paradigm, and in 2003 it became the first country in the world to incorporate forestry crimes as predicate offences within its anti-money laundering legislation.

In this regard, a common understanding of the definition of legality and the conceptualization of legal and illegal acts in critical areas such as the environmental sector, is a prerequisite to a more coherent and coordinated action at national, regional and interregional levels. Effective law enforcement and governance should thus be grounded on the rationalization and streamlining of applicable laws and regulations.

The role of UNODC is particularly valuable in East Asia and the Pacific, due to the expertise and technical assistance recently provided to various countries (Cambodia, Vietnam, Lao PDR) in the adoption of anti-money laundering instruments and anti-corruption legislations. Furthermore, UNODC, in cooperation with the World Bank, has also launched the Stolen Asset Recovery Initiative (StAR) which aims to assist countries in the implementation of the relevant provisions of the United Nations Convention against Corruption. It also aims to reduce barriers for asset recovery, strengthen the legal and financial systems of requesting countries, supporting developing countries in building capacity for mutual legal assistance and developing partnerships to share information and experience.

3.3 Sustainable development

UNODC can play an important advisory role in sustainable development, which in the recent past has proven to be a powerful tool to combat illegal activities with environmental impact, in the field of poppy eradication. The experience in the field of promotion of alternative solutions and community dialogue can be powerful tools to retain vulnerable groups from joining unlawful criminal activities hurting the environment.

UNODC has worked closely with the governments of Thailand, Lao PDR and Myanmar to reduce the opium production and to prevent re-cultivation of opium poppy in a region previously known as the Golden Triangle. The total area of opium poppy fields in Southeast Asia has been drastically reduced and the total annual opium cultivation has declined by 87% in 1996-2006. Opium production in Myanmar has also declined by 77% in the past 15 years¹¹.

¹¹ UNODC, "Opium Poppy Cultivation in South East Asia – Lao PDR, Myanmar, Thailand", December 2008



During its initiatives in Myanmar, UNODC aimed at supporting ex-opium farmers to cope with the effects of the opium ban declared by the authorities. The 10-year-long projects in this field focused on: i) building infrastructure (roads, irrigations schemes, water and sanitation facilities, schools, health centers); ii) fostering community participation and developing village-based committees in charge of sustaining the action; and iii) fostering communication among development and humanitarian stakeholders (such as INGO, UN agencies, CBOs) and local authorities through a coordination and advocacy partnership. All of UNODC projects included training components on the protection of Non-Wood Forest Products (NWFPs) and other environmentally sound practices which contributed to the income and food security of the targeted communities.

The wide set of expertise that UNODC has built over the last decade in the region represents a powerful instrument to advocate with, and provide assistance to national authorities to mainstream the role of sustainable livelihood components in any programme addressing the protection of natural resources against illegal trafficking.

4. Technical assistance that can be provided by RCEAP

UNODC RCEAP aims to enhance cooperation in the field of environmental crime and support regional and cross border activities among national law enforcement and judicial agencies of ASEAN, in full compliance with 2008-2015 work plan for strengthening forest law enforcement and governance (FLEG) and with the initiatives conducted by the Wildlife Enforcement Network (WEN). In this regard, RCEAP will promote an integrated approach where experts from governments, UN entities, the private sector and civil society organisations co-operate in a harmonized and coherent fashion.

Currently, RCEAP is increasingly advocating for support to the *UN Collaborative Programme on Reduced Emissions from Deforestation and Degradation in Developing Countries* (REDD) since any possible funds generated through the carbon market could represent a significant incentive for national governments to invest more in sustainable forest management, specifically serious actions in order to halt and reverse the high deforestation rate.

The **focus areas** will be:

- Illegal logging and trade in timber, where timber is harvested, transported, bought or sold in violation of national laws (there are currently no binding international controls on the international timber trade with the exception of an endangered species, which is covered by CITES);
- Illegal trade in wildlife in contravention to the 1973 Washington Convention on International Trade in Endangered Species of fauna and Flora (CITES);
- Illegal trade in ozone-depleting substances (ODS) in contravention of the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer and;
- Illegal trade in wastes including illegal transport and dumping of hazardous waste in contravention to the 1989 Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and Other Wastes and their Disposal, and of the 1996 Protocol to the Convention on Prevention of Marine Pollution by Dumping of Wastes and other Matters, 1972¹².
- Illegal, unregulated and unreported (IUU) fishing in contravention to controls imposed by various regional fisheries management organisations (RMFOs) and;

¹² See also the 2004 Stockholm Convention on Persistent Organic Pollutants and the 2004 Rotterdam Convention promoting shared responsibilities in relation to importation of hazardous chemicals.



Based on the technical expertise of UNODC, the RCEAP, the Country Offices in Lao PDR, Myanmar and Vietnam, and the Project Offices in Cambodia, China and Indonesia have agreed to jointly aim at a common **programme outcome** as set out below:

Outcome: Trafficking of illicit natural resources and hazardous substances identified and acted on

This outcome fits into the broader attempt of UNODC to curb illicit trafficking (human beings, drugs/precursors, migrants), as envisaged in the 2009-2012 Regional Programme Framework for East Asia and the Pacific (RPF).

More specifically RCEAP will achieve the above mentioned outcome through the pursuit of the following **programme outputs and activities**:

I. A regional strategy in place to prevent and suppress trafficking in illicit natural resources and hazardous substances

- supporting the existing regional networks (FLEG, WEN, etc.) especially in their efforts to increase cooperation among environmental law enforcement agencies
- supporting the development of national strategies to address and respond to environmental crime threats
- promoting awareness on the need to have environmental crimes established as serious criminal offences with a view to ensuring that they meet the serious crime threshold as defined under UNTOC
- systematic collection of relevant domestic laws, and analysis of relevant criminal offences (waste management and disposal, illegal logging, etc.)
- assessing information related to the involvement of organized criminal groups and networks in the illicit trafficking
- conducting threat assessments through collection and analysis of data related to illicit trafficking, including trends, routes, laundering of funds derived from illicit trafficking and links between this traffic and the financing of other criminal activities

II. Effective environmental governance policies and regulatory frameworks established and implemented

- supporting specialized responses such as the establishment of inter-governmental agency task forces and specialized enforcement units
- fostering interagency coordination and operational coordination supporting / encouraging the establishment of direct channels of communication for information sharing between agencies, NGO's and communities
- training programmes for central authorities and practitioners in charge of international judicial cooperation to enable them to effectively apply international cooperation mechanisms on extradition, mutual legal assistance and international confiscation
- establishing notification system to detect and arrest perpetrators of related crimes
- collecting, reviewing and analyzing information on the use of the UNTOC and UNCAC to counter trafficking
- providing legal assistance and support for putting in place appropriate legal frameworks and streamlining applicable laws and regulations
- strengthening national development agencies to enable them to address the underlying factors that lead individuals or groups to engage in illegal logging and/or the traffic of wildlife



III. Informed and capable law enforcement and specialized officials

- analysis of training needs for relevant officials
- developing specialized training curricula, materials and syllabus, including computer-based training modules to train police, public security and customs officials and, where appropriate, private companies inspectors
- developing training programmes for law enforcement authorities to upgrade their investigations and prosecution abilities
- training programmes for judges and prosecutors to enable them to effectively handle environmental crime, including seizure/forfeiture and confiscation of instruments, products and proceeds of these crimes

IV. Mechanisms established to promote cooperation between responsible agencies within and across borders

- Establishing regulatory and legislative frameworks for the expansion of BLO function to address environmental crimes
- Up-grading the capacities (e.g. training, equipment, transportation, etc) of the current BLO and establishing new BLO
- establishing effective container controls to prevent the trafficking of illicit goods through the creation of joint port control units and training of relevant law enforcement bodies

V. Producers and consumers effectively engaged in reducing demand for illegal natural resources and hazardous substances

- conducting field surveys to determine what drives small farmers and marginalized populations to engage in illegal harmful activities for the environment
- fostering the sharing among states of best practices and lessons learned in efforts to provide licit-income generating opportunities for those involved in illegal logging and/or the traffic of wildlife
- designing, developing and coordinating with government institutions as well as autonomous regional and local entities, prevention campaign on the social and environment impact of illicit trafficking
- consulting with national and local communities in key source regions and with industry representatives in source, transit and destination points
- empowering local NGOs on awareness raising in environmental issues

5. Partnership with relevant actors

Tackling effectively environmental crimes will require an integrated approach that combines policy making, institutional capacity building, support from private sector/civil society and a bottom-up approach involving communities directly affected by environmental degradation. Therefore UNODC will adopt an inclusive approach to select the appropriate stakeholders, yet capitalizing on the recent successful partnerships with the following organizations:

- ASEAN Secretariat
- Asian Regional Partnership for Environmental Crimes (ARPEC)
- Environmental Investigation Agency
- Food and Agriculture Organization of the United Nations
- CITES Secretariat
- Indonesian Committee of Lawyers on Environment



- Interpol
- Line Ministries (Industry, Commerce, Agriculture and Forestry) in most ASEAN countries
- Orang-u-tang Conservation Society
- TRAFFIC International
- United Nations Environmental Programme
- United Nations Forum on Forests
- World Bank
- Freeland Foundation
- World Custom Organization
- World Wildlife Fund
- Any other relevant stakeholder for National Authorities, International Organizations, UN, private sector, and civil society

In particular, RCEAP has already initiated a formal partnership with UNEP, TRAFFIC and Freeland Foundation to design a new initiative that aims at combating transnational crime, including trafficking of illegally sourced timber, wildlife, hazardous waste and ODS. Through this type of cooperation – named Partnership Against Transnational-crime through Regional Organized Law-enforcement (PATROL) – UNODC will be part of a holistic and integrated approach, in which the expertise of each partner jointly converges towards the common goal of sustainable development for the concerned countries.

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Results and monitoring framework

Hierarchy results <i>Based on the 2009-2012 RCEAP Regional Programme Framework</i>	Performance Indicators	Means of Verification
Outcome 1.4 – Natural resources and hazardous substances Trafficking of illicit natural resources (including wildlife) and hazardous substances identified and effectively acted on	<ul style="list-style-type: none"> • Number of traffickers arrested, prosecuted and convicted (by country/location, type of natural resource or waste, scale) • Volume and type of illicit natural resource and hazard waste seized by location, type of resource/waste, scale • Identification of sources of illicit resources and hazardous substances, traffickers, and trafficking routes/methods 	<ul style="list-style-type: none"> • Relevant national government agency records, including law enforcement agencies • Reports from international agencies such as UNEP, ASEAN-WEN, WWF, TrAFFIC etc • Periodic qualitative ‘survey’ of selected countries (using structured stakeholder interviews, focus groups etc) conducted by UNODC
Output 1.4.1 A regional strategy in place to prevent and suppress trafficking in illicit natural resources and hazardous substances	<ul style="list-style-type: none"> • Regional strategy in place, Number of countries engaged, and scope and quality of strategy 	<ul style="list-style-type: none"> • Quality of regional strategy assessed using a structured assessment tool by UNODC/peer review of experts.
Output 1.4.2 Effective forest governance policies and regulatory frameworks established and implemented	<ul style="list-style-type: none"> • Number and name of countries with effective policies and regulatory frameworks in place and being implemented 	<ul style="list-style-type: none"> • National government agency records • Reports from UNEP and other intentional agencies addressing this issue • Qualitative assessment using structured assessment tool conducted periodically by UNODC/contracted research body
Output 1.4.3 Informed and capable law enforcement and specialised officials	<ul style="list-style-type: none"> • Number, type and location of officers trained (M/F), by country and agency • Qualitative assessment of how informed and capable the officers are 	<ul style="list-style-type: none"> • Participating member country reports, including from relevant training academies • UNODC project reports, including training evaluations • Qualitative surveys / stakeholder interviews conducted by UNODC
Output 1.4.4 Mechanisms established to promote cooperation between responsible agencies within and across borders	<ul style="list-style-type: none"> • Number and scope of mechanisms and agreements established, including participating countries and agencies • Quality of these mechanisms 	<ul style="list-style-type: none"> • Participating producer and consumer group reports on initiatives being undertaken • UNODC project reports • Qualitative surveys / stakeholder interviews conducted by UNODC/contracted agency, using structured assessment tool
Output 1.4.5 Producers and consumers effectively engaged in reducing demand for illegal natural resources and hazardous substances	<ul style="list-style-type: none"> • Number and scope of initiatives being implemented by producer and consumer groups (which support implementation of international conventions and national laws on illegal trade in natural resources and hazardous substances), by country • Quality of these initiatives 	<ul style="list-style-type: none"> • Participating producer and consumer group reports on initiatives being undertaken • UNODC project reports • Qualitative surveys / stakeholder interviews conducted by UNODC/contracted agency, using structured assessment tool



Fighting environmental crimes to foster human development

From natural resources people derive commodities, such as food, clean water, wood, and minerals, essential to their human security. This form of capital becomes increasingly relevant for poor people to build a decent livelihood, since the access to these resources is often open and free. The unregulated exploitation of natural resources produces more dramatic consequences on the indigenous populations, and vulnerable communities that lack access to other physical, financial, social and human capital. For this reason sustainable management, environmental protection, and conservation of natural resources are paramount for the achievement of the First Millennium Development Goal, specifically in its targets to reduce income poverty, unemployment, and food insecurity.

The unprecedented economic growth of China has produced a widespread enthusiasm for the early achievement of the MDG 1 in East Asia. Nonetheless the situation remains alarming in Southeast Asia and the Pacific, where the achievement of the Goal within 2015 remains unlikely for many countries (Cambodia, Lao PDR, Myanmar, East Timor, etc.). Therefore, tackling environmental crimes must be considered as a fundamental responsibility to halve poverty, increase food security and restoring the rule of law, good governance, and ecological sustainability in East Asia and Pacific.

Forests and development: The forest products industry is a major source of income and employment for many countries, and over 90% of the 1.2 billion people living in extreme poverty depend on forests for some part of their livelihood (World Bank, 2000). Forestry improves the subsistence capacity of poor households by providing basic needs, such as food, firewood, medicines which improve food security and health conditions. When the access to these services is ensured, households can allocate more resources for the improvement of health, education, income, and safety. At the same time forests are a valuable support to the growth of small businesses trading and/or manufacturing wood, non-wood forest products, etc., while in many developing countries

it remains highly significant for national employment rates, especially with regard to tourism and large plantation companies. Last but not least, forests play a crucial role for environmental values, by preserving biodiversity, protecting from natural calamities, increasing water and soil quality, and by providing cultural and aesthetic services. Nevertheless, the role of forestry in poverty eradication (or at least alleviation) is still controversial. This is partially due to the fact that although forestry is a significant resource for the livelihood of communities, especially for poor people, the unregulated exploitation of wood and non-wood forest products can cause severe environment degradation. Sound forest management in fact seems a risky business for those who lack clearly defined rights and tenure, management skills, market knowledge and who need quick returns. Recently, an increasing number of scientists advocated for the role that forestry can play to mitigate the global climate change, especially by reducing emissions through the capacity of forests to store carbon. In fact, trees capture the carbon dioxide from the atmosphere and convert it into carbon. Since the emissions of carbon dioxide has grown dramatically with industrialization, urbanization, and population increase, the need of a sink for carbon has become crucial.

Wildlife and development: Poor people in remote and marginal areas have limited livelihood opportunities. Therefore they rely heavily on the wild for collecting food, clothes, medicines, and other products. As a result, if the quality of the wild resources declines, especially in remote area, the impact on poor people will be significant, especially in terms of loss of livelihood opportunities and increased vulnerability. Indeed, poor people use wild resources to build and diversify their livelihoods, through trading and supplying inputs (e.g., handicrafts to the tourism industry). Further contribution is provided by formal and informal employment especially in the tourism industry. It must also be noted that wild resources are often extremely important to local cultural values and heritage; therefore they contribute to a wider environmental sustainability.



Wildlife can become a source of income for poor communities mainly when it is harvested and traded, but also when it supports nature-based tourism, which seems to have a significant potential for reducing poverty among the local populations.

Ozone-Depleting Substances and

Development: The ozone layer protects the earth's inhabitants from harmful UV radiation, and is essential for life on earth. It absorbs most of the harmful ultraviolet-B radiation from the sun and completely screens out lethal UV-C radiation. The ozone shield is thus essential to life as we know it. When the ozone layer is depleted, more UV-B is allowed to reach the earth. This leads to more skin cancers, eye cataracts, weakened immune systems, reduced plant yields, damage to ocean eco-systems and reduced fishing yields, adverse effects on animals, and more damage to plastics. Therefore reducing the use and trade of ODS can directly improve human health, sanitation, food security and ecosystems integrity.

Waste and Development: Workers, including children, who are employed to dispose wastes, in unsafe and unregulated conditions, are particularly vulnerable to the toxic chemicals inherent in these wastes. The detrimental consequences resulting from the improper treatment of these wastes will affect generations to come. Hazardous wastes, if improperly handled, can have appalling effects on human health and the environment. Illegal shipments of hazardous wastes are often thoughtlessly dumped in rivers, villages and seas. The resulting contamination of our land and waters can lead to irreparable

consequences. Preventing illegal traffic of hazardous waste will improve human health, particularly among the poor, and will eventually lead to a general improvement in the quality of life. It will also protect the environment from possible further degradation as a result of improperly regulated disposal of hazardous wastes.

Fishery and development: Fish is an essential part of nutrition for millions of the world's population and contributes to a healthy diet through proteins, micro-nutrients, and fatty acids. The term fishery includes marine, freshwater, and aquaculture fisheries. In general, the capacity of fishery to contribute to the livelihood of poor households is limited, whereas it seems to play a more crucial role in preventing further expansion of poverty. In a certain way, fishery contributes to build coping strategies for vulnerable households, and helps prevent them from falling into further poverty. This happens mainly by reducing food insecurity, increasing employment opportunities, and providing social safety nets. Fishery can also contribute to the national wealth through the capacity of generating taxes, although in many developing countries there are still organizational difficulties in collecting taxes, partly due to certain confusion about use rights. For some developing countries in the Pacific, fishery exports account for 20-30% of total exports. The importance of adopting regulatory systems in the fish industry is also motivated by the need of preventing over-exploitation of the available stock. In fact, over-fishing leads to a decline in the size and quality of fish, and in some cases also to fish stock collapses, with negative consequences for the livelihood of people who depend on this sector.