Increasingly, there is a need to assemble and utilize datasets from a myriad of sources for the purpose of integrated and holistic planning, ranging from development projects to transport management, social surveys and environmental protection. Many variables intertwine which result in observed patterns, which need explanations and ultimately action. GIS fills this need by informing the decision-making process through the assembly of the spatial datasets needed to accomplish this.

One of the most vexing problems affecting Jamaica today is crime. Jamaica has one of the highest murder rates in the world. Coupled with other major crimes – robberies, shootings, rapes, carnal abuses and larcenies, as well as drug-related offences – the Jamaican society is increasingly besieged by this problem, which affects the attractiveness of the country to investors, as well as the productivity and morale of its residents. The security forces - Jamaica Constabulary Force and the Jamaica Defence Force - have to operate in an environment where they are increasingly called on to function in a worsening situation. Inadequate resources – both equipment and personnel – as well as difficult community relations and internal problems associated with corruption and staff dissatisfaction. Continue to plague the force. The use of technology in general and GIS in particular, creates a force multiplier, where the integrated use of data and technology would increase the efficiency and knowledge base upon which the police have to operate without the deployment of additional equipment or personnel.

There are two dimensions for the use of GIS in crime management: analytical and operational. The analytical dimension 

(Continued on page 3)
Desmon Brown, Mrs. Valrie Grant-Harry, Dr. Barbara Carby, Mr. Herbert Thomas, Mr. Raymond Poyser, Prof. Afette McCaw-Binns, Dr. Karen Lewis-Bell, Ms. Camille Dwyer, Mr. Jamie Russel, Mr. Adlai Davids, the Spatial Data Management Division and the Ministry of Education. To the PIOJ contributors and editorial team I also say a big thank you for your support. Last but not least we express our thanks to our contributors for this issue, Dr. Parris Lyew-Ayee and Ms. Antonette Richards.

As we look forward to another year of publications we crave your continued support and feedback.

Thank You.

Nadine Brown
Editor/Desktop Publisher

It’s a new year and after five years of publications Beginnings has gotten a makeover. You will notice our new cover page with hyperlinks to the articles as well as new graphics to give the publication a more modern look and feel. Give us your feedback on what you think of our new design.

The crime situation in Jamaica is frightening, to say the least. Many of us as concerned citizens can’t help but feeling a sense of hopelessness as we are bombarded with daily reports of men, women and children losing their lives, sometimes under bizarre and cruel circumstances. Unfortunately, the high crime levels will definitely have a negative impact on the sustainable development of our country and the drive to achieve Vision 2030 Jamaica—National Development Plan “to make Jamaica the place of choice to live, raise your families and do business”.

This issue features two articles focusing on the crime issue — one examines measures to manage crime and the other outlines the impact of crime on sustainable development in Jamaica. An interesting interview on the Elimination of Rural Poverty in Israel is also featured in this issue.

In our last issue I asked you our readers, to make an effort to conserve energy and scarce resources. In continuing the appeal, page 12 outlines a number of conservation methods that you will find useful.

I would like to take this opportunity to thank the distinguished national and international contributors to Beginnings over the last five years—Mrs. Edmarine Lowe-Ching, Major

From The Editor

Desmon Brown

WE NEED TO HEAR FROM YOU!!
The Beginnings team would like to get your valuable feedback and response in order to provide relevant information and links about issues important to YOU!
Send us your input on sustainable development related websites, events, projects, articles, workshops etc. and we will gladly include them in our publication.

Please feel free to forward this newsletter to friends and colleagues who may find the information useful. Past issues of Beginnings are posted on the official website of the PIOJ at: http://www.pioj.gov.jm

Beginnings is a bi-annual newsletter of the Sustainable Development & Regional Planning Division, Planning Institute of Jamaica. The opinions expressed by our contributors are those of the authors and do not necessarily reflect the views of Beginnings. Please send comments to: The Editor, Beginnings, 16 Oxford Road, Kingston 5. Tel: (876) 935-5058 Fax (876) 906-4465 Email: njones@pioj.gov.jm
involves the processing and collation of crime data to determine patterns and explanations, over (and often simultaneously across) both space and time. Crime reports are mapped and can, by themselves, be used to establish the frequency pattern of all or certain types of crime, and the identification and definition of hotspots. This can also be analysed temporally; crimes can be analysed by time of day, day of week, or month of year. GIS allows for the juxtaposition of crime data with other socio-economic and infrastructure data, which amplifies the value of the crime data. Here, community patterns of crime can be established, as well as the proximal locations of community assets (vacant and derelict buildings, schools and churches, etc), police stations, and main roads. Social re-engineering simulations, where spatial-statistical relationships are established between crimes and community assets, can be carried out, which show the effect of improvements in assets on the community’s crime profile.

The operational dimension of crime management is the most urgent. Field security personnel need ground intelligence to guide their operations and plan their activities, as well as review past operations. Past crimes can also be added to assist the security forces in their preparations. GIS can be used for everything ranging from GPS intelligence data gathering to cartographic output for briefing and review meetings. GIS can be taken real time, where the system provides data for GPS tracking applications for fleet and personnel management on land, offshore (Coast Guard) and in the air (Air Wing). GIS becomes invaluable when it allows for the use of multiple datasets in a multi-scale environment, assembling data at varying age, detail and resolution and for allowing full zoom-and-pan functionality, bringing with it the ability to add and remove additional data as necessary. Beyond crime management, GIS also allows security forces to plan traffic management, as well as training exercises and making arrangements for important state functions that require an enhanced role for the security services.

The GIS requirements for both dimensions, in most cases, are similar. Crime information needs to be properly gathered and processed. This is critical in order to integrate this with the other data with which the crime data will be analyzed, and to ensure the integrity of the conclusions derived from the subsequent observations and analysis; the value of the input should match the value of the output. Strict operating practices need to be in place to ensure data integrity at all stages of the GIS process.

Many different police and security organizations around the world have increasingly used GIS in their operations, and have integrated many other technologies with it – ballistics and fingerprint identification systems, closed-circuit monitoring, fleet management, etc – all connected by the inherent spatial nature of crime. In these, GIS is a component of a larger crime-fighting technological package, but regardless, the use of technology should be embraced as a solution to much of the current anecdotal approach to crime analysis and approaches to tackling the problem.
The Impact of Crime on Development

This World Bank paper discusses the upsurge in crime and violence in Latin America and the Caribbean and its implications for growth and development. The authors propose that illegal drug use and narcotics trafficking has often been equated with crime and violence, they are part of a larger problem of economic and social decay and not the main cause.

The paper first assesses the incidence of crime and violence at that time and then discusses some of the key relationships between crime, violence and development. It also focuses on policy areas that will require further strengthening and intervention in order to prevent or mitigate the adverse effects of crime and violence on development.

Crime and Violence as Development Issues in Latin America and the Caribbean

By Robert L. Ayres
Edition: illustrated
Published by World Bank Publications, 1998
ISBN 0821341634, 9780821341636
26 pages

Crime in the Caribbean

Crime, Delinquency and Justice examines common themes about promoting safety and advancing justice in the Caribbean nations. Through a series of papers, the author proposes that although the peoples of the region are diverse in many ways, they share a common framework for understanding problems of crime and justice. The book promotes the idea of a Caribbean Criminology and is relevant to the increased focus of establishing a science for crime prevention in the region. It is divided into 10 parts examining issues such as Juvenile delinquency and Public Policy; Domestic Violence and the Law; Community Policing; Drug Trafficking and Victimisation in the Caribbean.

Crime, Delinquency and Justice: A Caribbean Reader

By Ramesh Deosaran
Edition: illustrated
Published by Ian Randle Publishers, 2007
ISBN 9766372969, 9789766372965
693 pages
According to the Brundtland Commission, sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” In a world with increasing demand on limited resources, there is a need to promote greater management of these resources. There is also a need to look at other factors such as crime which impact sustainable development. A sustainable society is one that seeks to meet social needs, promote economic development, and protect and enhance the environment. Crime by its very nature contradicts these objectives and is therefore a barrier to sustainable development. This is because it may prevent persons from pursuing basic social needs such as recreation, health and education, which are all necessary for a good quality of life. In terms of economic development, crime can result in reduced productivity and increased expenditure while in the case of the environment it may lead to the physical deterioration of communities. Crime has both personal and societal impacts. This paper explores why it is a barrier to sustainable development and its impact at the macro and micro levels, whether, social, economic, environmental and/or emotional.

Social
Crime can hinder an individual from accessing basic social services. In Jamaica, flare-ups in crime have led to the closure of schools, health facilities and businesses in some communities. It has also prevented persons from accessing these services by trapping them in their homes during violent outbreaks.

Crime has also led to the stigmatization of some communities resulting in residents being unable to access employment in the wider society. Stigmatization also hinders service provision in these communities as service providers are fearful about sending workers into the communities and in instances where they do, they sometimes request police escort. Residents are very vulnerable and tend to live under intolerable conditions. In some cases, they participate in illegal activity as a means of survival, which exacerbates the problem.

Depending on the type of community, some persons may be prevented from participating in the decision-making process in their communities. This is usually the case in inner city communities that have ‘community dons’. The community dons are usually the enforcers of law and order in the community and at times their vision for the community is not in keeping with the views held by the majority of residents. However, they are forced to conform out of fear of the ‘don’.

Inadequate access to good quality health care is another social impact of crime. In a society with high crime rates much of the resources in the health sector is spent on treating injuries due to violent crimes and results in inadequate resources to treat other conditions. The economic cost of violent crimes on the health sector is highlighted in the next section. However, inadequate access to good health care is a great concern as a healthy population is a critical component of any sustainable society. A healthy population leads to a productive labour force, which results in the country’s growth and development.
Crime and Sustainable Development...

**Economic**

The economic impact of crime relates to physical costs associated with preventing and treating the issue. According to Gamman and Thorpe (2008), “the economic impact of crime is not just experienced by victims, but also by wider society through consumption of public funds from the criminal justice system and health service.” There are costs related to loss of productivity, need for private security arrangements, and most importantly reduced funding to other critical sectors. According to the World Bank Report (2003), “in 2001 crime cost Jamaica approximately J$12.4 billion, or 3.7% of its GDP. This total cost was composed of health costs ($1.3 billion), lost production ($0.5 billion) and public expenditures on security ($10.5 billion).” Based on data in the Planning Institute of Jamaica’s Economic and Social Survey Jamaica 2007, by the 2006/07 fiscal year, government expenditure on national security (includes justice, defence and correctional services) had reached approximately $28.0 billion which was 7.5 per cent of the total budget, while expenditure on economic services (includes agriculture, transport and communication, industry and commerce, fuel and power and environmental protection) was 6.5 per cent.

Additionally, findings of the “Estimation of the Cost of Interpersonal Violence Study” (2007) conducted by the Ministry of Health in conjunction with the Pan American Health Organization and World Health Organization indicate that, violence costs the Jamaican health sector $2.2 billion every year (40 per cent of the recurrent hospital budget from the Ministry). Equally important is the loss of revenue due to crime. Perceptions of crime risk have had a negative effect on Jamaica’s tourism industry. At different periods of time countries such as the United States of America, United Kingdom, and Canada have issued travel advisories for their citizens visiting Jamaica due to criminal activity. Loss of revenue has also come from praedial larceny in the agricultural sector and the payment of ‘extortion money’ by businesses in some communities.

**Environmental**

The environmental impact of crime on sustainable development ranges from the illegal dumping of solid waste to the decline of communities due to abandonment. The illegal and improper disposal of solid waste has led to the blocking of drains and other water ways, and during periods of heavy rainfall results in flooding. Squatting is another illegal activity that has numerous environmental implications such as pollution of ground water sources due to improper sewage and wastewater disposal; development in vulnerable zones, e.g. gullies and river banks; and as mentioned before, improper solid waste disposal.

In more extreme circumstances, crime has forced many residents to abandon their communities. Hundreds of residents from the Tredegar Park Community in Spanish Town, St Catherine, “were forced to flee their homes in December 2008, after receiving an ultimatum from gunmen to leave”. When residents are forced to abandon their homes due to violence, a number of problems develop. Real estate values in these communities decline as they are no longer desirable communities for persons to live in. At the same time, relocating to other communities has its attendant problems such as, “…the considerable economic costs and the unduly heavy burden in those communities in providing for the new residents suitable accommodation with the necessary infrastructure and amenities.” The quality of life of the individual and their family may also deteriorate as they sometimes have to
live in small, cramped or otherwise unsuitable accommodation. This accommodation may at times be further away from work and school thus increasing the family’s monthly expenditure on transportation and reducing expenditure in other critical areas.

There are also environmental issues related to the abandonment of property in a community, which in most instances, the owner is no longer willing to maintain the property. The property therefore becomes overgrown with shrubbery and destroyed through vandalism. These properties may be ‘captured’ by illegal occupants or used for undesirable activities such as dumping of garbage and crime. In a report entitled Behind Jamaica’s Garrisons it was noted that, “....the abandonment of legally owned houses and business premises followed by the capture of some of these by illegal occupants and/or the destruction of others through vandalism and inappropriate usage….in turn fosters criminality and violence.”

The issue of maintenance of a property is one of the key Crime Prevention through Environment Design (CPTED) Principles. In justifying the need for property maintenance the Western Australian Planning Commission in its Designing Out Crime: Planning Guidelines notes that, “the removal of indicators of crime and the use of positive maintenance with lighting, painting and vegetation management creates a cared for environment that can reduce the fear of crime and induce legitimate behaviour.”

Simultaneously, in Jamaica, sufficient attention has not been paid to the value of community open space in curtailing criminal activities. These spaces provide the residents with an area to relax and bond which is vital for building strong, peaceful and cohesive communities. Being able to relax enables the individual to better manage stress and inter-personal conflicts. Participation in recreational activities is an integral part of an individual’s wellbeing, a lack of which could result in emotional problems. Presently, there are many communities without community centres and playfields. In cases where playfields do exist, they are usually football fields or netball/basketball courts and only cater to the needs of some members for the community. There are very few communities with parks specially designed for small children.

**Emotional**

Crime and the fear of crime have serious debilitating effects on the growth and development of any society and “although fear of crime may bear little relationship to the actual risk of being victimized, it is the former, rather than actual risk, which affects people’s behaviour”.

In 2006, approximately 61 per cent of respondents of the Jamaica Victimization Study stated that they had been victims of a crime at some point in their lives. Respondents were also questioned about fear of crime and many stated that they felt unsafe engaging in various public events. According to the survey results, 51.6 per cent of respondents felt unsafe or very unsafe when they went to a bar, nightclub or concert; 50.6 per cent felt unsafe or very unsafe when they used public transportation at night; 48.5 per cent felt unsafe or very unsafe when they went to school or work at night; 47.9 felt unsafe or very unsafe when they went to a restaurant after dark; and 44.5 per cent felt unsafe or very unsafe when they went shopping after dark. Additionally, a number of respondents were fearful of experiencing certain types of violent crime. Approximately 64 per cent feared being victims of an armed robbery, 61 per cent being attacked by a stranger in public, 56 per cent home invasions, 41 per cent being victims of a sexual assault, and 37 per cent being attacked by someone they knew.

As previously stated, fear of crime not only affects the individual but it also affects the society as a whole. For example, individuals who are fearful about being victims of crime may not participate
in various activities such as night time entertainment resulting in reduced income for providers of this service and other spin-off problems such as job loss and reduced tax revenue. There are also the psychological issues which may develop that will prevent the individual from living a normal life.

**Conclusion**

The issue of crime and sustainable development in Jamaica requires further examination. The impact of crime on real estate values and the social and economic costs of personal security are some possible areas for more in depth research. There is also a need to consider serious implementation of CPTED principles. These principles will serve to manage crime through environmental design and highlight how physical development can create an environment that fosters criminal activity. By being able to identify these trigger factors, steps can be taken to eliminate them when implementing physical development projects. Finally, due to the high vulnerability of Small Island Developing States such as Jamaica steps need to be taken to limit the number of critical factors impacting on our sustainable development.

**Endnotes**


6 ibid


**References**


Antonette Richards
Community Development Specialist
Social Development and Gender Unit
Social Policy Planning and Research Division
Planning Institute of Jamaica
The Bruntland Report, 1987 defines sustainable development as “development that meets the needs of the present without compromising the needs of future generations to meet their own needs.” It contains two key concepts: the concept of needs, in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations, imposed by the state of technology and social organization on the environment’s ability to meet present and future needs. Sustainability indicators provide a roadmap for public policy. An effective set of indicators highlights critical social, economic, and environmental problems and provides a way to measure the effectiveness of programmes designed to alleviate these problems. Below are selected sustainability indicators for Jamaica for 2001 to 2008.

Sources: http://www.ecifm.rdg.ac.uk/definitions.htm
http://www.rprogress.org/sustainability_indicators/about_sustainability_indicators.htm

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<td>Per cent Household below Poverty Line</td>
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<td>Energy Consumption per capita (BOE)</td>
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<td>% Population in Urban Areas b</td>
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<td>52.0</td>
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<td>1.5</td>
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a - Based on 1991 and 2001 Population Censuses

b - Urban areas have 2000 or more persons with a number of amenities and utilities.

n/a - not applicable

n/s - not surveyed

p - preliminary

r - revised

BOE: Barrel of Oil Equivalent

Source: Compiled from Jamaica Survey of Living Conditions, Economic and Social Survey Jamaica (various issues), reporting agencies
The first Millennium Development Goal is the reduction of world poverty. Israel has successfully managed to eliminate rural poverty through the coherent implementation of a coordinated and integrated approach to rural economic and social development. Allison Richards and Antonette Richards of the PIOJ both had a chance to witness the successful Israeli experience when they participated in the “Eliminating Rural Poverty” course held in Beer Sheva, Israel from November 30 to December 11, 2008.

The course was offered by the Negev Institute for Strategies of Peace and Development (NISPED) whose focus is on civil society, the voluntary, people-centred, non-governmental groups and organizations concerned with conflict-resolution and the advancement of sustainable human development. It sought to give participants the opportunity to formulate ideas and policies which may be applicable to their own countries and share experiences with colleagues from around the world.

The course was presented in the form of lectures, workshops and study visits. Courses included:

- Introduction to Value Chain and Value Chain Analysis;
- Strategies of Community Development;
- The role of Small and Medium Enterprises (SMEs) and cooperatives in rural development; and
- Establishing and managing comprehensive support systems for SMEs and cooperatives at the central and local/regional levels.

Beginnings caught up with Allison Richards to get her views on the programme and how it could impact Jamaica.

Nadine: Allison - After completing the course on Eliminating Rural Poverty, what do you think are the main contributing factors to the success of the Israel experience?

Allison: The main contributing factors to the success of the Israel experience were the implementation of three integrated approaches:

- appropriate government investment in infrastructure
- development of post harvest processing and marketing cooperatives; and
- development of non-agricultural rural enterprises

The NISPED approach was one of training and capacity building, individual and community self-empowerment actions and enterprise promotion, all applied in a series of inter-related projects. The projects were developed as individual modules or as an integrated package and usually include Empowerment and Development and community development.

Nadine: I remember one of the stories you told on your return was the phenomenon of the kibbutz. Can you explain this to our readers?

Allison: A kibbutz is a communal socialist way of life, but which is democratically ruled. All kibbutz members have voluntarily decided to live on the kibbutz; it is a choice concerning desired style of life. The first Kibbutz was established in 1910 and today there are 266 rural/agricultural kibbutzim with approximately 120,000 people, or 2% of the population of Israel. Each kibbutz is different, and runs its community as decided upon by its membership. In addition to rural kibbutzim, there are now many urban kibbutzim (non-agriculturally based) in Israel as well.

- Social/economic basis: In the 'traditional' kibbutz, all members work for the collective. Their salaries are deposited into joint bank account; each member receives equal budget (regardless of job/position). All properties and major assets belong to the kibbutz, not to the individual (e.g. houses are property of kibbutz, not of individual member who lives there). Each member is entitled to a house (free of charge), health care, food, education, kibbutz/municipal services. In the more 'privatized' kibbutzim – people may receive salaries, own cars and other assets, lead a more capitalistic way of life within this framework.

- Education: Childcare and educational centres begin from infancy (about 3 months). Education guaranteed through high school; in most/all kibbutzim through first degree (Bachelor of Arts).

- Health care: Provided by General Sick Fund – Kupat Holim Clalit – includes family doctors + specialists.
• Culture/holiday celebration: Each kibbutz runs this their own way, but each community celebrates major Jewish and Israeli holidays together.

Another communal way of life is the Moshav. There are between 400 and 500 Moshavs in Israel. It however differs from the Kibbutz in the form of governance which is what is called a "municipal cooperative" governance system.

Kibbutzims and Moshavs account for 100 per cent of the agricultural production of Israel.

Nadine: Do you think a similar model would work for Jamaica?

Allison: A resounding NO. Our culture is not conducive to working for the greater good. The many problems experienced by owners and residents of apartment and townhouse complexes (failure to pay maintenance fees, desire to personalize homes, etc) across Jamaica could be used as an indicator of the outcome of such a model in Jamaica.

Nadine: How did the Israeli use Small and Medium Enterprises (SMEs) and cooperatives to transform rural development?

Allison: In Israel farming is seen as a business as well as a way of life. The landholding patterns of the country create small units of production or small enterprises, which result in low competitiveness and inadequate capacity to move out of primary production. Also, the value added benefits were captured by others in the supply chain. As a result of this, the farmers organized themselves into cooperatives, especially at the stages of post harvest processing and marketing. Cooperatives were established in warehousing; refrigeration; sorting, packing and preparation for market; and creating of a marketing cooperative. In these cooperatives, the individual farmers all utilize the facilities mentioned above to gain economies of scale and lower operating costs. A Cooperative and Small Business Development Agency (COSDA) was established with the main functions of:
• diagnosing business problems and adapting services to the changing market conditions;
• consulting and mentoring services to the managements of new and existing small businesses and cooperatives;
• conducting surveys to define new areas of business opportunities;
• attracting investments from out of the region for new/existing businesses; and
• promoting local and regional entrepreneurship.

Another area of focus was the introduction of modern agricultural technologies as a way of ensuring the production of quality produce. Research and Development is a major component of the rural development programmes (both by the government and cooperatives). There is continued work in seed varieties, cultivation technologies and water management and fertilization technologies.

Nadine: What were some of the places you visited?

Allison: We toured several places. Among them were the Orah Agricultural Cooperative Ltd. which showed how agricultural cooperatives functioned; the Moan Cooperative Enterprise where groups of cooperatives can work together to improve their efficiency and profitability; and Kibbutz Beeri – where we saw how a small agricultural cooperative had evolved into the largest printing company in Israel controlling 40 per cent of the country's printing market.

We also visited various rural development projects where we were exposed to new agricultural development projects in rural areas. It showed how the government has been encouraging persons to undertake farming in the Sinai desert by putting in the necessary infrastructure (roads, electricity and water supply).

Nadine: Do you think that some of the ideas and practices presented would be relevant for Jamaica? what changes would be necessary for us to implement them?

Allison: The information garnered at the course is relevant to Jamaica in that it provides possible solutions to the issue of rural poverty in Jamaica. However, some fundamental changes would need to take place in our society for the experience to be realized.

• Farming needs to be seen as a business.
• Cooperation and coordination in agriculture, especially among small farmers, is key to widespread success.
• There must be great investments in infrastructure development, research, funding, other technical assistance by the government which may encourage the development of the agricultural sector.

Nadine: Thanks Allison for taking the time to share the Israel experience with us.

Allison: You’re most welcome. Shalom.
**Tips to Save Energy Today**

*Easy low-cost and no-cost ways to save energy.*

- Use compact fluorescent light bulbs with the [ENERGY STAR](#)® label.
- Air dry dishes instead of using dishwasher's drying cycle.
- Turn off your computer and monitor when not in use.
- Plug home electronics, such as TVs and DVD players, into power strips; turn the power strips off when the equipment is not in use (TVs and DVDs in standby mode still use several watts of power).
- Lower the thermostat on your hot water heater to 120°F.
- Take short showers instead of baths.
- Wash only full loads of dishes and clothes.
- Drive sensibly. Aggressive driving (speeding, rapid acceleration and braking) wastes gasoline.
- Look for the ENERGY STAR label on home appliances and products. ENERGY STAR products meet strict efficiency guidelines set by the U.S. Department of Energy and the Environmental Protection Agency.

**Green Tips for the Office**

- **Don’t print:** Before you hit print, ask yourself if you can cut and paste the information into a document that you can store in a computer file, or simply write it down the old-fashioned way. You’d be amazed at how much paper and ink (plus the energy required of your printer) you can save by just pausing for a few seconds to determine just how badly you need another piece of paper (or two or three). And if you must print, don’t forget to print on both sides if you can. It might take a few mishaps to know exactly how to reload the paper into the feeder, but the amount of paper you’ll save in the end will be well worth it.
- **Recycle:** Think of the money you and your company can save by recycling paper. And you don't have to wait until it comes back to you in the form of a ream of paper to help the environment. Any sheet of paper that does not contain proprietary information can be turned into scraps that can be used for notes or memos. Also, use chlorine-free paper that contains a higher percentage of post-consumer recycled materials.
- **Quiet the photocopier:** Instead of leaving the photocopier on all day, keep it on during a specified time, maybe three hours during which you and your colleagues can copy what you need. With some scheduling and a little fine-tuning, this practice could become a regular way of conducting business.

Sources:
- [http://www1.eere.energy.gov/consumer/tips/save_energy.html](http://www1.eere.energy.gov/consumer/tips/save_energy.html)

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**Sustainable Development Events**

**Sustainable Development 2009**
May 13 to May 15, 2009
Cyprus, Cyprus

**Renewable Energy Conference**
May 27 to May 28, 2009
Halifax, Nova Scotia, Canada

**Urban Transport 2009**
June 22 to June 24, 2009
Bologna, Italy

For details on these and other conferences visit: [http://www.sdgateway.net/events/](http://www.sdgateway.net/events/).