

Eco Systematic Strategy in Handheld Systems and Devices in India

Santhosh Kumar C¹, Seethalakshmi P², Gayathri C³

¹Master of Engineering, Department of CSE, Anna University of Technology, Coimbatore, Tamil Nadu, India

²Master of Technology, Department of IT, Anna University of Technology, Coimbatore, Tamil Nadu, India

³Bachelor of Technology, Department of IT, Government College of Technology, Coimbatore, Tamil Nadu, India

*Corresponding author: Santhosh Kumar C, Master of Engineering, Department of CSE, Anna University of Technology, Coimbatore, Tamil Nadu, India. Email: cjsksag@gmail.com, laxnasri@gmail.com

Abstract

Mobile devices are the foremost communicating and computing devices which are used by 80% of the people all over the world. They are less lethal to human health but cause more problems to the environment. The appalling issues by the radiation are even getting higher and higher every year. The world may take apposite actions in minimizing the effect of electromagnetic radiations emitted by this device. This paper suggests the method called Eco Systematic Plans, which describes the impact and the events to reckon and trim down the causes of radiations in addition with the safety recycling and disposal techniques to our environment.

Keywords: Eco Systematic plan; Electromagnetic radiation; Minimization; Recycling and Disposal techniques.

Abbreviations: ESP - Eco Systematic Plans; EMFs - Electromagnetic fields; EMR - Electromagnetic radiation; AC - Alternating current; DC - Direct current.

Introduction

India, over 400 million mobile subscribers, with 11-12 million new mobiles subscribers added every month to subscriber base.

Energy consumption in mobiles

Food must be labeled with nutritional facts; the same argument can be made that cell phones should list their radiation output. In the meantime, we at least have a standard by which cell phone radiation is measured and sometimes reported. It's called SAR, which stands for *Specific Absorption Rate*. In cell phone's SAR rating is measured between 0.0 and 1.60 with 1.60 as the maximum level of radiation permissible. With 4 billion people on the planet talking on cell phones or 60 percent of the world's population and recent studies finding "significantly higher risks for brain and salivary gland tumors among people using cell phones for 10 years or longer," the question of your exposure is critical and prescient. Talking on your cell phone isn't like having an X-ray. To quantify your radiation level, though, you can now look your cell phone up at the EWG's radiation guide so you know if you're chatting away on one with a high SAR or low SAR. While some cell phone carriers

list this SAR information, there's currently no standard across the industry because there hasn't been governmental action to require it.

Some carriers divulge the information and others don't. But the EWG has amassed 1,000 cell phones and their SAR levels in one place. The EWG says according to the phone's manufacturer. The EWG says the iPhone 3G S rates at a somewhat high 1.19 W/kg and the Palm. While we wait for definitive answers to surface about cell phone safety and radiation, the purpose of the EWG guide is to help consumers pick out cell phones with low SAR levels. The EWG's top 10 best cell phones and smart phone (with low radiation) can be found below along with the top 10 worst (with high radiation). These handsets are listed from best to worst in the best listing and start with the worst in the worst listing.

Lowest Radiation: Top Best Cell Phones

1. Motorola RAZR V8 [CellularONE]
2. Samsung SGH-t229 [T-Mobile]
3. Samsung Rugby (SGH-a837) [AT&T]
4. Samsung Propel Pro (SGH-i627) [AT&T]

5. Samsung Gravity (SGH-t459) [CellularONE, T-Mobile]
6. T-Mobile Sidekick [T-Mobile]
7. LG Xenon (GR500) [AT&T]
8. Motorola Karma QA1 [AT&T]
9. Sanyo Katana II [Kajeet]

Highest Radiation: Top Worst Cell Phones

1. Motorola MOTO VU204 [Verizon Wireless]
2. T-Mobile myTouch 3G [T-Mobile]
3. Kyocera Jax S1300 [Virgin Mobile]
4. BlackBerry Curve 8330 [Sprint, U.S. Cellular, Verizon Wireless, MetroPCS]
5. Motorola W385 [U.S. Cellular, Verizon Wireless]
6. T-Mobile Shadow [T-Mobile]
7. Motorola C290 [Sprint, Kajeet]
8. Motorola i335 [Sprint]
9. Motorola MOTO VE240 [Cricket, MetroPCS]
10. BlackBerry Bold 9000 [AT&T]

The Effects of Handheld Devices

Mobile phone is going to be one of the biggest polluter of environment in the whole world. The effects caused to our environment drastically increases every year. The key concern the telecommunicating companies and their transmission machines emits harmful radiations which affects most of the livings which is said in the newspaper and also people just simply don't know the way to dispose of their phones properly. As a result one hundred and twenty-five million phones are trashed each and every year amounting to sixty-five thousand tones of garbage. The mobiles contain most dangerous toxic chemical compounds like Arsenic, Beryllium, Cadmium, Copper, Lead and Mercury. Each of these harmful substances is proven to do harm including many forms of cancer and these are leaking to our environment. Proper disposal of mobiles will certainly remove any kind of chance of such a leak

to help unclog up our landfill sites. Alternatively we still choose to throw away our outdated mobile phones in the trash can. The manufacturing procedure is not only polluting but in addition uses our limited natural resources.

All the dump sites have some harmful aspects, allowing these types of toxins to diffuse in to the earth and straight into our own drinking water. Drinkable water available to us is in very tiny portion of the entire world. So small that it does not even make up 1% of the planet's water. They unveiled that leakages were found to be prominent in 82% of landfill sites just in their area. These leakages and emissions have been proven to affect the health of those who live near these landfill sites. Illnesses can range from shortness in height right down to cardiac disorders. And I haven't even mentioned cancer yet. Landfill site space that is available is decreasing day by day and will vanish soon, if we do not change our ways, in addition to the limited natural resources we use to make those goods out of. We must do something and truly raise awareness of this escalating problematic issue. The environmental effects of radio frequencies are also largely unclear. Migrating birds have been known to fly right into cell phone and other communications towers. Some blame the radiation emanating from such towers for disorienting the birds and undermining their navigational abilities. Others chalk such incidents up to poor visibility associated with bad weather and nothing more. Some farmers have observed that cows grazing near cell towers are more likely to experience still births, spontaneous abortions, birth deformities and behavioral problems, not to mention general declines in overall health. Moving cattle herds away from such towers has reportedly led to immediate health improvements.

Effects to Our Environment

It could be possible that our health be negatively affected by all the radio frequencies being bandied about by cell phones and cell phone towers, wireless pagers and Internet systems, and other uses of radio frequency and microwave radiation. The technological advancements in

telecommunications and other industries have led to significant increases in the use of radio frequencies. Equipment employing microwave and radio waves is today widely used not just in broadcasting and communications, but also in the health care industry, the food industry, and in a host of other industries in a wide range of applications. Electromagnetic fields (EMFs) of about 50 to 60 cycles per second hertz and the related electromagnetic radiation (EMR) are harmful to us. Long-term exposure may aggravate any existing health problems or diseases and may cause or intensify especially lack of energy or fatigue, irritability, aggression, hyperactivity, sleep disorders and emotional instability. Increasing numbers of individuals are becoming hypersensitive to EMR; many can feel the electricity going through the body and may experience disabling symptoms such as convulsions, memory problems and depression.

Chronic exposure to high levels of EMR, especially while asleep, is a constant drain on our vitality. It creates chronic stress, which interferes with the regeneration and healing that normally takes place during a good night's sleep. EMR exists around power lines, power tools, electric stoves, heaters, boilers, freezers and television sets when in use, extending several feet or yards around the appliance. Stay away from them if possible. Using an electric iron or an electric keyboard or working with handheld power tools can quickly drain our energies. When working with electric equipment we can reduce harmful effects by holding our hands under running water from time to time in addition to having a shower in the evening or walking barefoot on grass.

Try to minimize electromagnetic pollution, especially while sleeping when the pineal gland is most susceptible. Also sleep in the dark or at least cover your eyes to produce the immune-stimulating hormone melatonin. Preferably switch off all power points in the bedroom and unplug all electric leads with 2-prong plugs before going to sleep but definitely any power points or leads close to the bed. This applies also to waterbeds which need to

be unplugged overnight. If the head faces a wall with power-points or other electric wiring inside the wall close to the bed then move the bed towards the middle of the room so that you can walk around the bed. The best sleeping position is with the head towards north or otherwise somewhere between north and east.

When using an electric blanket, warm the bed beforehand and pull out the plug at the wall when you go to bed. Do not habitually remain within a few meters of a working electric appliance, minimize fluorescent lighting, watching television, using video games, computers and even electric typewriters and hand-held electric tools.

Stray currents and radiating fields can still be emitted from electric wires even if appliances are switched off. AC electric fields do not disappear when an appliance is switched off, only AC magnetic fields disappear. Keep live wires away from your body. Preferably do not live near high-voltage lines, microwave towers or electric-train tracks. Television sets also emit harmful X-rays. Preferably sit as far away as conveniently possible. The field is strongest directly in front and at the back. View the set at an angle and restrict your exposure to only a few programs daily - the fewer the better. Computer monitors apparently have stronger radiations to the sides than to the front.

Exposure to Radiations

Nowadays all health advocates in the world have worried for decades that exposure to frequencies emanating from these many sources might be harmful. The ubiquity of such technology today especially considering the great improvement in cell phone usage is in recent years. Many types of researches is going around the world about the health effects of cell phone. Some studies suggested a link between exposure to radiation from cell phones and an increased risk of acoustic neuroma - a tumor of the nerve connecting the ear to the brain.

According to the Occupational Safety and Health Department of the Communication Workers "As high frequency radio frequency

radiation...penetrates the body, the exposed molecules move about and collide with one another causing friction and, thus, heat...If the radiation is powerful enough, the tissue or skin will be heated or burned.”

According to CWA, “there is substantial scientific data that establishes negative health effects associated with microwave radiation.” CWA cites cataracts as one possible negative health effect from prolonged exposure, as well as well as nervous system damage and even reproductive problems in both males and females. As to cell phones, the results of a study recently published in the academic journal *Environmental Health Perspectives* do not bode well for habitual chatterers. Researchers documented brain damage in laboratory rats exposed to radio frequencies from cell phones at levels comparable to what people would experience during normal use. The study’s authors expressed concern that “after some decades of daily use, a whole generation of users may suffer negative effects, perhaps as early as middle age.”

Most people are familiar with type-1 diabetes and type-2 diabetes, but did you know researchers have discovered a third type of diabetes? Type-3 diabetes, as they are calling it, affects people who are extra sensitive to electrical devices that emit "dirty" electricity. Type-3 diabetics actually experience spikes in blood sugar and an increased heart rate when exposed to electrical pollution ("electropollution") from things like computers, televisions, cordless and mobile phones, and even compact fluorescent light bulbs.

One of the most interesting finding in her study was that electro-sensitive people whose blood sugar decreases when they go for a walk outdoors actually experience *an increase in blood sugar* when walking on treadmill. Treadmills are electrical devices that emit electrical pollution. But interestingly, even the physical exertion of walking on the treadmill did not make up for the blood sugar spiking effect of the EMFs emitted by the treadmill, Despite the exercise, in other words, type-3 diabetics experienced significant spikes in blood sugar when walking on the treadmill. Dirty

electricity is bad for everyone, but it is especially bad for people who are type-3 diabetics.

Eco Systematic Plan

Electro-proofing your House

The measures outlined so far will go some way to reduce the harmful effects of EMR on your health. However, often they are not enough. There is a simple way to check if your home and workplace are sufficiently safe. You can do this by measuring the electricity that is absorbed by your body. For this you need a digital voltmeter or multimeter, which is able to read millivolt This is reasonably cheap to buy or a friend may lend you one. Then you get some insulated electric wire that is long enough to reach from most rooms to the ground outside and attach an alligator clip to each end. Finally you need a ground stake or earth spike, a copper pipe is good, which you drive into the ground in moist soil. One end of the wire is clipped to a clamp at the top of the ground stake and the other to the black probe of the voltmeter. It is not good enough to attach the earth wire to a water pipe or to the main electricity ground stake of the house as they may carry high voltages. To close the circuit you just need to hold the metal end of the red probe firmly in one hand. However, it is more convenient to hold a piece of copper pipe, which is connected through a clipped or soldered insulated wire to the red probe. Now you set the dial to 2 AC Volt. If it shows less than 200 mV that is good and you can switch the meter to the 200 mV setting. Preferably the reading should be below 100 mV in commonly used rooms but if you lie down on your bed it should read below 10 mV.

In reality the readings will be much higher and you may get between 2 and 50 V while lying on your bed. This is a constant drain on your vitality. By moving the bed away from any electrical wiring you may perhaps get it to read between 500 mV and 2 V. A relatively easy way of reducing the voltage a lot further is by using an earthed electric blanket.

The easiest way is to use an old or second-hand electric blanket and cut off the plug. Then you can easily solder or clip an earth wire onto all three-

wire strands. If you want to keep using it for heating as well, then you may attach a plug to the earth wire. Lying on a well-earthed electric blanket may bring the body voltage down to read one quarter to one tenth of the previous measurement.

If the bed has a steel frame or innerspring mattress then these may also need to be earthed. Commonly all springs are internally connected and need to be earthed only at one point but some mattresses have individual springs which would need to be earthed individually. However, steel frames and innerspring mattresses still may deflect the compass needle when moved across the bed and that is not good either. The needle should continue pointing north everywhere over the bed. Metal beams in the wall or ceiling may cause the same problem and the bed should be moved far enough away from magnetic field disturbances.

In addition earth any metal parts, such as window frames, metal wall cladding or roofing iron that show an unacceptably high reading when touched with one hand while holding the earthed probe in the other. This is especially the case if there are high-voltage power-lines, microwave towers or transformers nearby or power lines that form a right angle as at street corners.

Occasionally there may be so much ground electricity that it shows a higher reading when lying on an earthed electric blanket than without an earth connection. In this case move the earth stake as far away as possible from any power sources that may cause this problem and find or create a good earthing behind the house where you can reach moist soil with a long ground stake. With a short ground stake try to keep the soil around it moist at all times. It is also possible to get a good earth by connecting the wire to a moist part of a tree or large outside plant.

To get a true reading on a concrete floor or when outside the house you should be insulated by wearing shoes, otherwise the reading will be much too low.

For sanitising an apartment of office in a large building where you cannot get a good earth you

may just try if an earth connection to the water pipe is sufficient or get expert help. An upper floor of a building commonly has much higher voltages than the ground floor, as there may be wiring in the floor as well as in the ceiling. In this case you may be able to reduce the EMR considerably by placing earthed wire netting under the carpet. If this is not possible with the entire floor, then perhaps just earth a smaller area where you are usually sitting. In other cases it may be advisable to shield and earth the wiring inside a wall. This is much more difficult as wall panels need to be removed but it may be relatively easy under the roof or if the wiring is under the house. You may simply wrap electric cables with earthed wire netting or Aluminium foil or nail metal strips over them.

In addition to these earthing measures, you may disconnect the fuse or switch in the meter-box for the bedroom (commonly including all power points in the house) overnight. Alternatively have a separate fuse switch installed for the bedroom only or a demand switch that only supplies power to the circuit when needed. In addition, strategically placed copper coils may be used and are highly recommended to de-stress the whole house. All these warnings apply to the common household alternating (AC) current. Direct current (DC), on the other hand, is generally harmless, except with very high voltages, while low voltages are sometimes even used in healing. To make car safe, electric charges at the engine, chassis, and interior need to be returned to the negative pole of the battery.

We have to rethink Environmental Influences of Modern living

I find this research fascinating, not only because it proves that electromagnetic waves impact blood sugar and heart rate, but because there could be thousands, if not millions, of diabetics who may be suffering from a diabetes misdiagnosis right now. The reason I'm bringing this up is because a 54 year-old pre-diabetic man who participated in the study was found to experience serious blood sugar spikes only when he was working in an urban environment around power lines or on his

computer. When he was out camping away from the city, his blood sugar was just fine.

The man tested his blood sugar every morning in different situations and his levels were always higher when electrical fields were nearby. On one of the mornings, he forgot to test himself prior to beginning work on the computer. His blood sugar levels were higher than normal, registering around 205 milligrams per deciliter (mg/dL). But after stepping away from the computer for only ten minutes, his levels dropped nearly 20 mg/dL. The degree to which electromagnetic pollution affects the body is clearly quite astonishing, and this study illustrates that. But it makes you wonder how many people have diabetes simply *because* of EMF pollution (and not solely due to their diet or lack of exercise, as we have been taught).

High EMF'S gave this Woman Diabetes

Take the case of the 80 year-old woman whose house tested high for EMF pollution. Prior to installing a system of filters around her house designed to reduce "electro-smog" levels, her blood sugar was high and she was using insulin each day in order to balance her blood sugar levels. After installing the filters (which reduced EMF pollution by roughly 98 percent), the woman's blood sugar levels dropped by 33 percent and her insulin requirements plunged a whopping 75 percent.

This idea that reducing the electro pollution of your house could drastically reduce a patient's need for insulin has never even registered in conventional (mainstream) medicine. Yet it could be a crucial understanding for tens of millions of diabetics around the world. The study mentioned here classifies the type of diabetes caused by electromagnetic pollution as *type-3 diabetes*. With type-1 or type-2 diabetics can also have type-3, the data seems to indicate that a person can also exclusively have type-3 without any overlay of the other two types. In other words, their diabetes may be *solely* due to electromagnetic pollution. And since pre-diabetics can be pushed over the edge by EMF pollution, there is no telling how many people actually have type-3 rather than type-2 diabetes.

Wireless Signals Interfere with the Heart

For one portion of the study, Dr. Havas had patients lie down on a bed with a cordless phone placed two feet away from their heads. The phone was plugged into the wall, but for each testing session, the electricity was either on or off. Neither the patient nor the doctor administering the test was aware of whether or not the phone was live or dead during each session. At the completion of that part of the study, researchers observed that EMF-sensitive patients experienced significant increases in their heart rates during the sessions when the phone was being powered and emitting radio signals. When it was turned off, these same patients returned back to their normal heart rates almost instantaneously.

A double-blind study is the litmus test used in the medical profession to verify that a study is legitimate. Since nobody involved knew when the power was on or off, the results are completely unbiased and hold a lot more sway than if it had been conducted a different way.

Secondly, it illustrates that EMF pollution really *does* speed up the heart rates of certain people. And since a rapid pulse is one of the many symptoms of diabetes, it seems reasonable to suspect that EMF pollution could be a *fundamental cause* of diabetic symptoms for a significant portion of the diabetic population.

This makes you wonder about the harm caused by mammograms, CT scans and other medical scanning technologies that blast the body with electromagnetic radiation.

Electromagnetic Radiation leads to many Diseases, including Cancer

Our bodies are constantly barraged by electromagnetic radiation from numerous electronic sources, and most people don't think twice about this high level of exposure, but the truth is that all this EMF pollution is leading to widespread illness. Most of the recent research on EMF pollution has focused on cell phones, which makes sense because people take their cell phones with them everywhere they go and when they use them, they often hold them right next to their

skulls. Cell phone radiation is probably one of the most dangerous EMF pollutants because the devices remain in very close contact with the body for long periods of time. Cell phone radiation causes human cell proteins to improperly express themselves and also found that the radiation damages living DNA, creates leakages in blood brain barrier, and increases estrogen and adrenalin levels. According to study, adults who use a cell phone over the course of a decade increase their chances of developing brain cancer by *40 percent*. Even worse, a Swedish study found that people who start using a cell phone before the age of 20 increase their risk of developing a brain tumor by 500 percent.

Mainstream Science holds Conflicting Views

Of course, many in the medical establishment simply deny that electro-smog has anything to do with health or disease. And it doesn't matter how many studies are conducted on the matter; *many continue to insist that there is not enough evidence that EMFs cause any harm*. Not everyone feels this way, of course, but sadly most of today's experts seem unable to put two and two together and make the connection between electromagnetic pollution and disease. There are many contributors to disease in our environment. EMFs represent just one. But to deny that electromagnetic pollution is harmful is quite narrow minded. Our world, of course, is full of electromagnetic devices and some of them may surprise you. A typical hair dryer, for example, emits an explosion of electromagnetic radiation that's usually aimed right at the skull. Typical office environments shower employees with electro-pollution from fluorescent lighting, and even exercise gyms can subject visitors to a dense field of electromagnetic pollution. But for mainstream people, a more practical solution is to install some EMF filters around your home.

Solutions for Electromagnetic Pollution

As already mentioned, *home EMF filters* are one of the best ways to reduce or eliminate the stray electrical signals that plague your house. These filters will capture electrical "noise" from things like televisions, computers and phones, and return

it back into the line or into the ground. These can be connected to the outlets where these devices are plugged in. Keeping Wi-Fi devices like cell phones and wireless routers *away from your body* as much as possible are another good idea. If you have a wireless router at home, place it away from areas where people sleep or spend a lot of time. Even having it just a few feet farther away can make a big difference in a reduction of the electro-pollution exposure from it.

When charging your cell phone, plug it in across the room from you. Especially at night when you are sleeping, it is best to turn off as many electrical devices as possible and to keep them away from your bed when sleeping. And beware of electric blankets: They produce a very strong electromagnetic field. Try to use the speakerphone as much as possible when talking on the phone, or use an "air-tube" device that stops the signal short before it reaches your head. *Never* walk around with an idle blue-tooth attached to your head, because these devices deliver a steady stream of EMF radiation directly into your head. It's also a good idea to keep your phone in your pocket or purse *only when necessary*, and to keep it away from your body at all other times. Cell phones are intermittently communicating with network towers, so the closer they are to our bodies, the more radiation we are exposed to. So if you're not going to be using it for a while, *just turn it off*.

Finally, it is crucial to *maintain a healthy diet and get plenty of outdoor exercise*. Eating lots of nutrient-rich foods, drinking plenty of clean water, and minimizing intake of toxic preservatives, food additives, and refined sugars will do wonders to build a strong and vibrant neurological system that will resist some of the impact of electromagnetic pollution. The reason I mention *outdoor* exercise is because, just like in the study, certain indoor exercise equipment like treadmills can actually cause more harm than good. So go outside and take a walk or a jog. The sunshine will boost your vitamin D levels and the fresh air will help rejuvenate your system.

This is step one in our three-step process in following the public health paradigm.

Here are some simple ways that you can begin the process.

- Don't use a cell phone any more than you have to. *Don't use it inside buildings or cars. Use it in open areas* so the phone won't have to as hard to generate as much power to get a good signal.
- Don't talk on your cell phone *when the signal bars are less than maximum*. This means your phone is working harder to maintain a signal. More power means greater radiation exposure to you.
- *Don't let your kids use cell phones except in emergencies*. The radiation penetrates their head easier because *their skull bones are softer*. Their brains are also in a development stage. That's not a good time to expose it to radiation. They can live without one. You did, remember?
- *Don't use a cordless phone. They're three times worse than cell phones and are a continual source of radiation in your home* even when they aren't being used. Go back to a landline phone.
- *Get rid of your wireless router*. Again, this is a continual source of radiation that is being beamed all over your house 24 hours a day, even while you sleep. Go back to a hardwired cable connection. You won't get kicked off the Internet near as often either. If you refuse to get rid of your wireless router at least turn it off at night.
- Only purchase cell phones with a *speakerphone function*.
- *Hands-free headsets are bad*. The wires running around and across the head will act as an "antenna" and *will actually attract more radiation to the head*, making the problem worse. The exception here is a headset with an "airtube" piece in it which gets the wires away

from the head. They do help some but don't think they are your security blanket.

- *Stand well back from appliances* like microwave ovens when they are in operation. The microwave oven is often the appliance that produces the greatest amount of radiation in most homes. *The second largest radiation-producing device is the hairdryer*.
- *Don't let your school install Wi-Fi in the classrooms* and fight any decision to install a cell phone tower on school property.
- *Don't live near a cell phone towers*.

Recycling and Disposal

A. Recycling Cell Phones Saves Energy and Conserves Natural Resources

Recycling or reusing cell phones helps the environment by saving energy, conserving natural resources and keeping reusable materials out of landfills.

B. Cell Phone Recycling Helps the Environment

Cell phones and personal digital assistants (PDAs) contain a variety of precious metals, copper, and plastics. Recycling or reusing cell phones and PDAs not only conserve these valuable materials, it also prevents air and water pollution and reduces greenhouse gas emissions that occur during manufacturing and while extracting and processing virgin materials.

C. Good Reasons to Recycle Cell Phones

Recycling just one cell phone saves enough energy to power a laptop for 44 hours.

- For every one million cell phones recycled, we can recover 75 pounds of gold, 772 pounds of silver, 33 pounds of palladium, and 35,274 pounds of copper; cell phones also contain tin, zinc and platinum.
- Recycling one million cell phones also saves enough energy to provide electricity to 185 U.S. households for a year.
- Cell phones, PDAs and other electronic devices also contain hazardous materials such as lead, mercury, cadmium, arsenic

and brominated flame retardants. Many of those materials can be recycled and reused; none of them should go into landfills where they can contaminate air, soil and groundwater.

Recycle or Donate Your Cell Phone

The next time you get a new cell phone, don't discard your old one or toss it into a drawer where it will just gather dust. Recycle your old cell phone or, if the cell phone and its accessories are still in good working order, consider donating them to a program that will either sell them to benefit a worthy charity or offer them to someone less fortunate. Some recycling programs also work with schools or community organizations to collect cell phones as fundraising ventures.

How Materials from Recycled Cell Phones are Used

Almost all of the materials used to manufacture cell phones—metals, plastics and rechargeable batteries—can be recovered and used to make new products. Metals recovered from recycled cell phones are used in many different industries such as jewelry making, electronics and automotive manufacturing.

Recovered plastics are recycled into plastic components for new electronic devices and other plastic products such as garden furniture, plastic packaging and auto parts. When rechargeable cell-phone batteries can no longer be reused, they can be recycled to make other rechargeable battery products. Today's common household batteries—those ubiquitous AAs, AAAs, Cs, Ds and 9-volts from Duracell, Energizer and others—are not thought to pose as great a threat to properly equipped modern landfills as they used to because they contain much less mercury than their predecessors. As a result, most municipalities now recommend simply throwing such batteries away with your trash.

Battery Disposal or Recycling

Nevertheless, environmentally concerned consumers might feel better recycling such batteries anyway, as they still do contain trace

amounts of mercury and other potentially toxic stuff. Some municipalities will accept these batteries at household hazardous waste facilities, from which they will most likely be sent elsewhere to be processed and recycled as components in new batteries.

How to Recycle Batteries

Other options abound, such as the mail-order service, Battery solutions, which will recycle your spent batteries at a cost of 85 cents per pound. To find a company near you where you can drop off your old batteries for recycling.

Older Batteries Should Always Be Recycled

Consumers should note that any old batteries they may find buried in their closets that were made before 1997—when Congress mandated a widespread mercury phase-out in batteries of all types—should most surely be recycled and not discarded with the trash, as they may contain as much as 10 times the mercury of newer versions.

The Problem of Rechargeable Batteries

Perhaps of greater concern nowadays is what's happening to spent rechargeable batteries from cell phones, MP3 players and laptops. Such items contain potentially toxic heavy metals sealed up inside, and if thrown out with the regular garbage can jeopardize the environmental integrity of both landfills and incinerator emissions.

Conclusion

Nowadays the world is using more number of handheld devices like mobile phones, iPods and wireless calculating devices in different forms without knowing the unsympathetic effects what they are giving to the Environment. Green Scheme is a way in Eco computing which gives idea to make a sustainable world by reducing the hazardous radiations and devastating effects which is given by handheld systems. The Eco computing thus become a solution for the development technologies hitch and their side effects to the environment.

Acknowledgement

The authors are very thankful to our college Anna University of Technology, Coimbatore for giving technical support.

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