

Greenhouse Gas Reduction in the Lifestyle Sector: Case of the Republic of Korea

- Focusing on “Reducing One Ton of Greenhouse Gas Per Person” -



KCEN

한국 기후·환경 네트워크
Korea Climate & Environment Network

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1. Introduction of Korea Climate & Environment Network

Reducing One Ton of Greenhouse Gas Per Person Campaign

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- **Oct. 2008** : Launched Green Start
- **Apr. 2014**: Name changed to **Korea Climate & Environment Network**
- **Sept. 2014**: Began National Campaign to **Reduce One Ton of Greenhouse Gas Per Person**
- **Jan. 2016** : Conducted Greenhouse Gas Diagnosis Consulting for **Home/Commercial Settings/Schools (55,500 places)**

그린스타트



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Korea Climate & Environment Network

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Established National Network

- 53 Government, Corporate, Civil Society (Energy, Environment, Consumers, Womens Organization, etc) Networks
- 17 Wide Area Networks
- 228 Local Governments



2. Background

Importance of Implementing Low Carbon Lifestyle



- New National GHG Reduction Goal
⇒ 37% Reduction by 2030
- Importance of the lifestyle sector in GHG reduction emphasized

Development of Action Plan



- Developed & executed various projects to reduce 1 ton of GHG per person
- Distributed daily practice manuals and green office supplies
- Conducted diagnosis & consultation on GHG reduction
- Implemented PPP (public private partnership) GHG reduction projects

Reducing One Ton of Greenhouse Gas Per Person



- Conducted national campaigns to promote the goal to "reduce 1 ton of GHG per person"

3. Measures to reduce daily GHG usage

Development of Daily Practice Measures to Reduce GHG (domestic use)

① Transportation (11)

- Eco-driving, public-transportation, etc. **can reduce 1,241.6kgCO₂/yr**



② Cooling-heating(8)

- Maintaining optimal temperature and limiting cooling/heating usage **can reduce 59.9kgCO₂ /yr**



③ Electricity (11)

- Using energy-efficient devices such as Green Touch **can reduce 239.6kgCO₂ /yr**



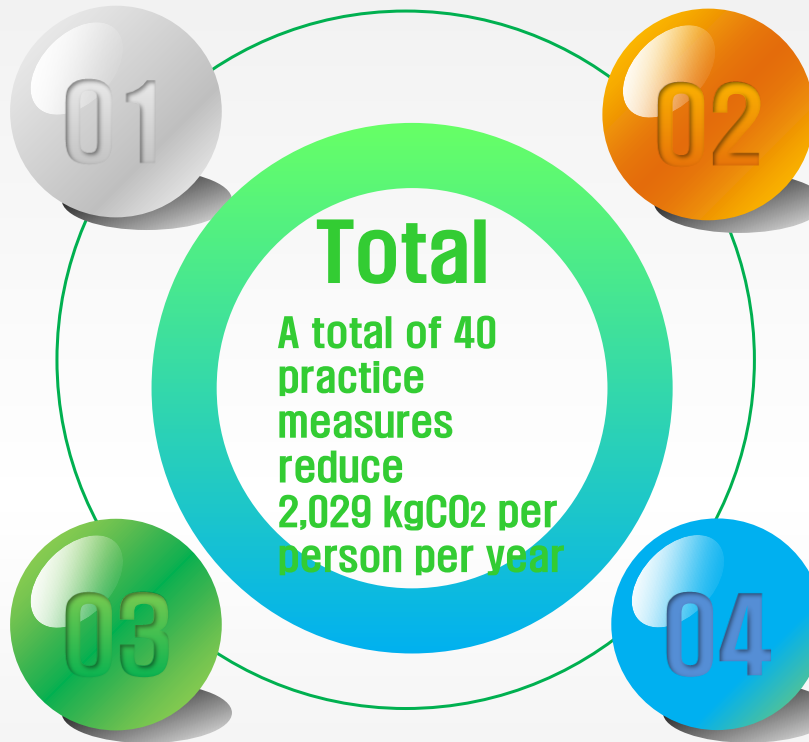
④ Resources (10)

- Reducing food waste and using water saving devices **can reduce 188kgCO₂/yr**



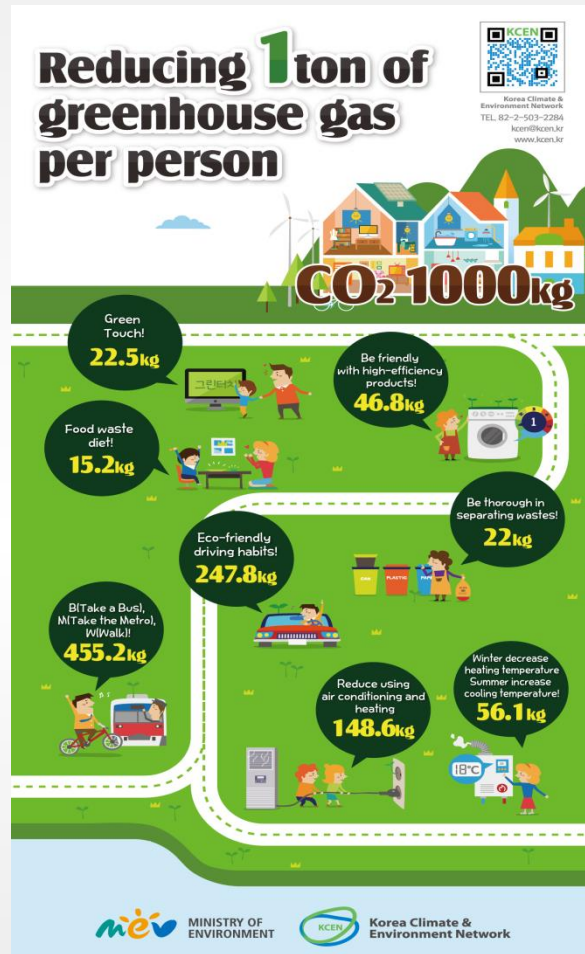
Total

A total of 40 practice measures reduce 2,029 kgCO₂ per person per year



3. Measures to reduce daily GHG usage

Development of Daily Practice Measures to Reduce GHG (domestic use)



3. Measures to reduce daily GHG usage

Development of Daily Practice Measures to Reduce GHG (domestic use)

Reducing 1 ton of greenhouse gas per person

Climate change caused by human activities can be checked with environment-friendly practices in our daily life. Korea established the objective of reducing by 37% the BAU(Business As Usual) greenhouse gas by 2030. In the nonindustrial sector, the Korea Climate & Environment Network aims to reduce greenhouse gas by one ton from the current 5.3-ton greenhouse gas being emitted by one citizen. We plan to establish various real-life practices for low-carbon eco-friendly daily life.

Where and how can we find greenhouse gas emissions in our daily life?

0.2 kg



Finding greenhouse gas emissions in our daily life!

Changing from paper bills to electronic bills: instead of using paper bills and use electronic bills for your household and personal bills, you receive discounts and reduce 0.2kg of CO₂ per year.

1.9 kg



Natural light than artificial light!

Reducing usage of one florescent light a day, you reduce 1.9kg of CO₂ per year, aside from alleviating eye fatigue caused by florescent lights.

6.0 kg



Stylish look, use handkerchief!

Use handkerchiefs instead of paper towels make you look more stylish while reducing 6kg of CO₂ per year!

22.5 kg



Green Touch! Environment Touch!

Using 'Green Touch', a computer energy-saving program during lunch time, you can save energy and increase computer life. 22.5kg of CO₂ per year can be reduced.

8.3 kg



Best friend, tumbler!

Use your own tumbler and make your own fashion statement instead of paper cups. Using three cups a day on average, you can be stylish while reducing 8.3kg of CO₂ per year.

13.6 kg



Fashion item necessary for your shopping, Eco bag!

Use your own stylish shopping bag, not black plastic bags, when shopping to reduce 13.6kg of CO₂ per year.

14.2 kg



Local food up! CO₂ down!

Reduce using imported food by 10% and consume local food. Enjoy food made from fresher materials and help farmhouses while reducing 14.2kg of CO₂ per year.

15.2 kg



Food waste diet!

Cook your own food and only as much as you can eat and reduce food waste by 20%. Prevent bad smells, a headache in summer season, and reduce 15.2kg of CO₂ per year.

22.0 kg



Be thorough in separating wastes!

If you conscientiously separate waste like glass bottles and cans, resources can be saved and preserved while reducing 22kg of CO₂ per year!

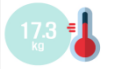
3. Measures to reduce daily GHG usage

Development of Daily Practice Measures to Reduce GHG (domestic use)



Catch water thief!

Use water-saving devices, use basins for doing dishes and reduce your shower time. Your water bill will be lower while reducing 24.2kg of CO₂ per year!



Practice a clever summer during hot months!

Reduce using air-conditioner by one hour a day and increase your cooling temperature by 2°C. It will help in preventing sickness from overexposure to air-conditioning. Manage your air-conditioner filters; it will help in keeping healthy bronchial tubes while reducing 17.3kg of CO₂ per year.



Clever winter during cold months!

Use long underwear in midwinter, use short-sleeve shirts, and prevent heat wastage. If you decrease heating temperature by 2°C, you can avoid having dry skin while reducing 264.3kg of CO₂ per year. Don't forget to check and clean the insides of your boiler!



Prevent electricity loses and standby electricity!

Unplug home appliances when not in use for a long time (TV, washing machine, electric rice cooker, electric range, and humidifier) to lower your electric bill and reduce 12.8kg of CO₂ per year.



Be friendly with high-efficiency products!

Be Smart! Choose high-efficiency home appliances (TV, washing machine, refrigerator and electric rice cooker), and LED lights and reduce 46.8kg of CO₂ per year!



Give some rest to home appliances too!

Reduce TV watching time by one hour, increase interactions with your family. With newly cooked rice, keep both taste and nutrition. Collect and do the laundry one time, save detergent and water and reduce of 33.5kg CO₂ per year.



B (Take a Bus), M (Take the Metro), W (Walk)!

Walk to short distances and use public transportation instead of your car once a week. It will help improve your cardio pulmonary functions and basic physical strength while reducing 482.7kg of CO₂ per year.

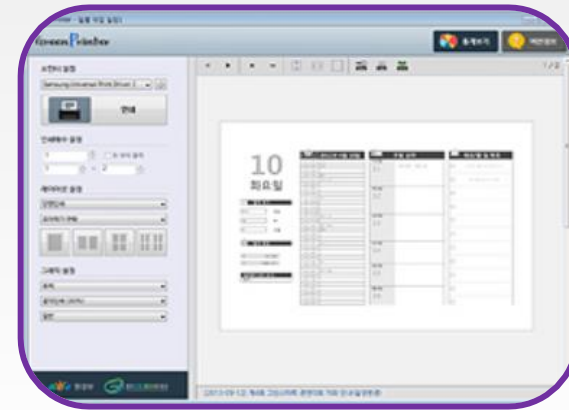


Smart driving habits! Eco-friendly driving habits!

Practice relaxed and eco-friendly driving habits in your daily life. You will feel less stress and decrease traffic accidents by driving safely. 247.8kg of CO₂ per year can also be reduced!

4. Ways to reduce GHG with minimal effort

Green Office



Green Touch

- Program that automatically switch computer into sleep mode when the computer is not in use
- 2.05 million units supplied, 40,000 tons of CO₂ reduced
- **MOU with China (May 2015)**

Green Printer

- Paper-saving program such as double-sided printing, stapling, etc. are possible
- 750,000 units supplied, 60 tons of CO₂ reduced

5. Greenhouse Gas Diagnosis Consulting Pilot Project (2015)

Local Government Diagnosis Consulting



- Fostering Green Leaders in Seo-Cho District & supporting their activities to promote the national campaign to reduce 1 ton of GHG per person
 - Seo-Cho District Green Leaders trained for Diagnosis & Consulting training
 - 1,850 households in the district visited for diagnosis and consultation (Aug-Nov, 2015)
 - 27kgCO₂/monthly reduction per household
 - If expanded to 136,000 households, can reduce 4.4 million tons annually (1.4% of GHG emission in Seo-Cho District)

Approximately 300kg (about 0.3ton) of annual household GHG reduction

5. Greenhouse Gas Diagnosis Consulting Pilot Project (2016)

2016 GHG reduction Diagnosis and Consulting

□ Households · Commercial Settings · Schools Diagnosis· Consultation

- Households(50,000 places), Commercial Settings (5000 places), Schools (500 places): total of 55,500 places visited for diagnosis and consultation.

- Goal to reduce approximately 20,000 tons of CO₂ via in-person diagnosis and consultation.

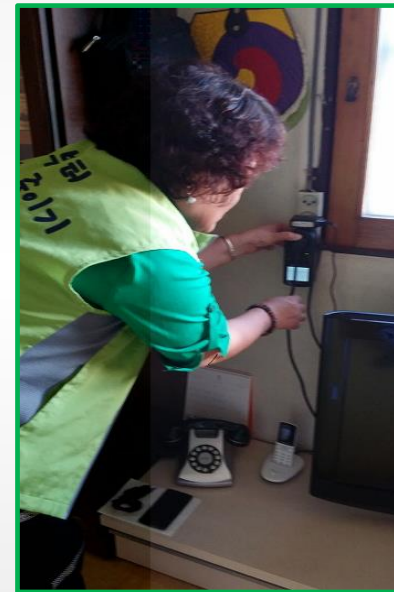
* Households > 50,000 households × 0.3 tons/household = 15,000 tons

* Commercial Settings, Schools -> 5,500 places × 1ton/place = 5,500 tons

- Develop Households · Commercial Settings· Schools GHG reduction

Diagnosis·Consultation Manual

- Create Regional Consultant (Nationwide approximately 1,400 people)



6. Diagnosis Consulting (2016)

2016 GHG reduction Diagnosis and Consulting Business

□ Financial Institution Greenhouse Gas Reduction Business Agreement

- Voluntary Greenhouse Gas Reduction Business Agreement made with KEB Hanabank, and DGB Daegu Bank (Jan. 2016)
- Goal: Approximately 3,500 ton of CO2 reduction via in-person Diagnosis· Consulting
 - * Bank -> 1,000 institutions × 3.5 tons /institution (1 year) = 3,500tons



□ Greenhouse Gas Reduction Business Agreement made with Food & Beverage

- Greenhouse Gas Reduction Business Agreement made with Food & Beverage Franchise Institutions (Bakery, Coffee Shops, Chicken Specialty Stores) (Aug 2016)
- Goal: Approximately 509 tons of CO2 Reduction via In-person Diagnosis ·Consulting
 - * Franchise stores-> 509s stores × 1ton/store= 509 tons



Co. Paris Croissant (Paris Baguette)=140, Co. m's Seed (Paul Basset)= 69 stores, NH moguchon (Toreore)=300stores

7. Others (Network Joint Projects)

Cooperation with Participating Organizations



- In 2015, supported 20 projects such as reducing the use of disposables at Drycleaners & Funerals
 - * 24,730 participated, 17,397tonCO₂ reduced
- In 2016, supporting 7 environmental projects such as tackling fine dust

8. Citizen's Emission Pilot Project

Non-Industrial GHG Purchase Business

□ Purchase of GHG Reduction via Non-Industrial Facility

Improvement



- Target : Public Housing and Schools
- Reduction Method: Change to LED, light bulbs, introduce Solar equipment
- Purchase Unit Price: 18,500 won/ton · CO₂ (Emission Trade Price)
- Participation Status : A total of 37 places (35 Public Housing, 2 Schools)
- Reduction Rate : Approximately 12,000 tons of CO₂



9. Results

Discover various projects that enable quantification

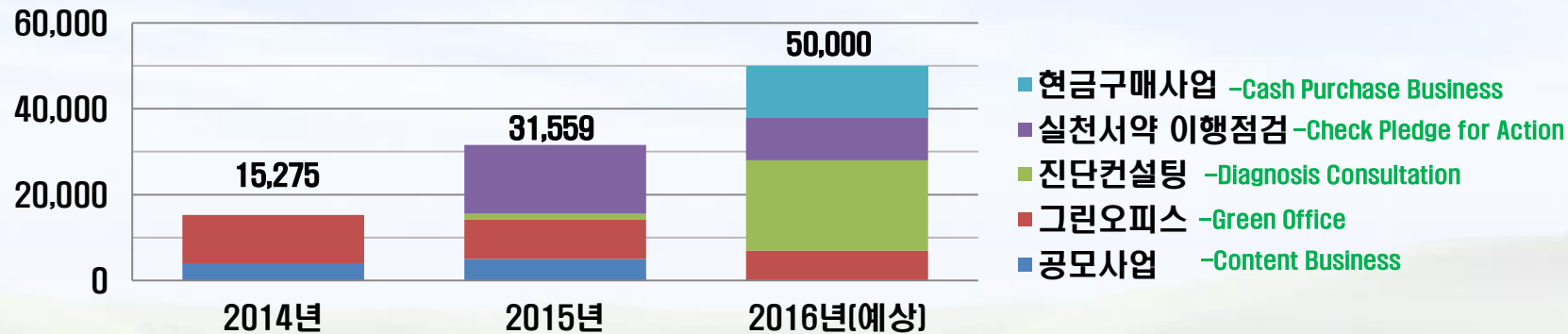
- Develop diagnosis · consulting, cash purchase projects

Continuous Increase in GHG reduction

Estimate

(단위 : 톤CO₂)

[연간 온실가스 감축량 추이] -Estimation of Yearly GHG Reduction





Thank you