

REALIZATION OF SUSTAINABLE LOCAL COMMUNITIES AND LIFESTYLES



Under the Sixth Basic Environment Plan, Japan aims to create a Circular and Ecological Economy (local SDGs), which is the key to realizing a self-reliant and decentralized sustainable society using local resources, and develop it as a ground to practice/implement the “new avenues for growth” concept with an eye to “the vision of an ideal future” for local communities.

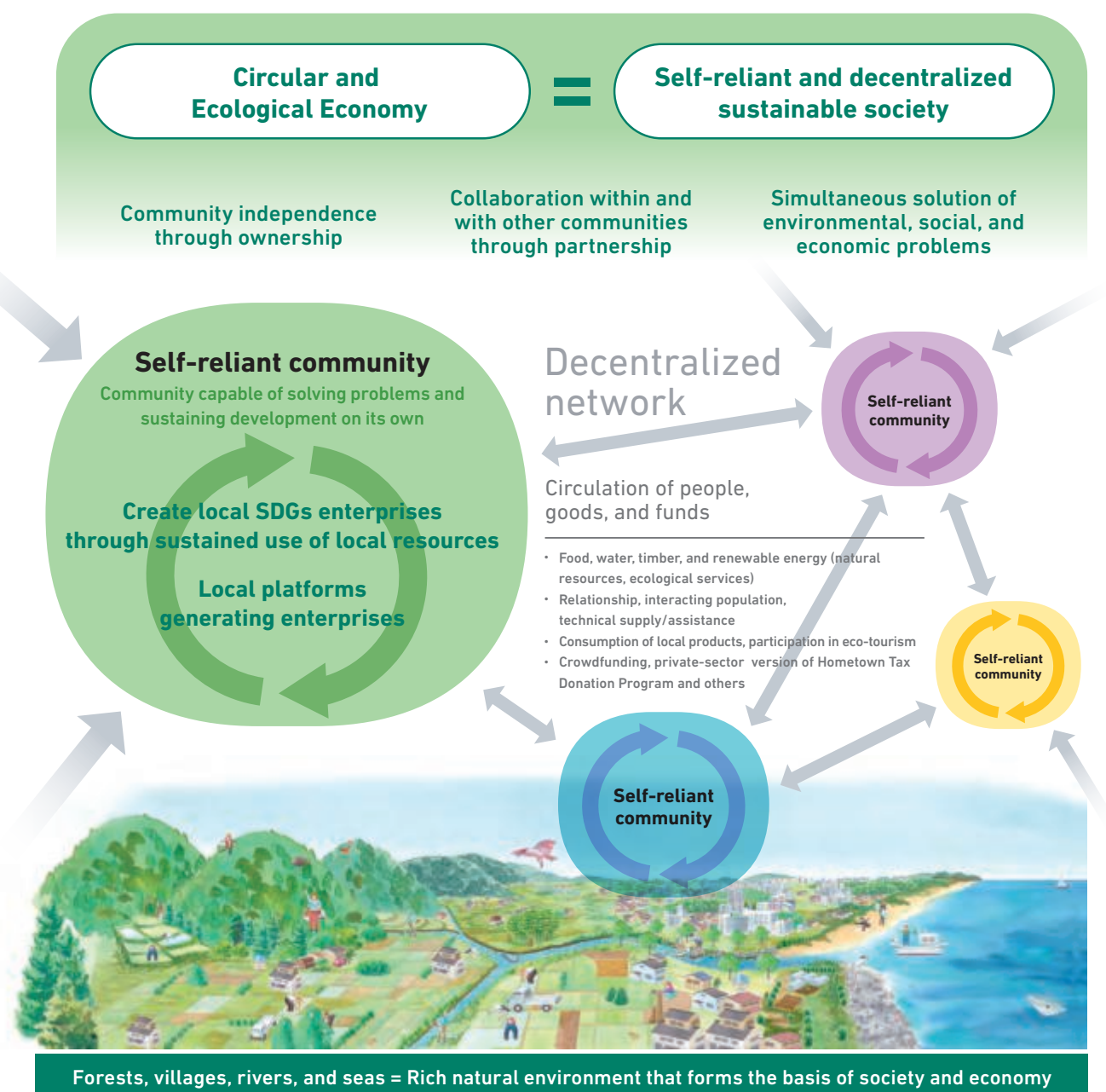
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1 PRACTICE AND IMPLEMENTATION OF THE CIRCULAR AND ECOLOGICAL ECONOMY

The Circular and Ecological Economy is the concept of a “self-reliant and decentralized society” wherein each local community solves its own challenges self-reliantly through continuous creation of enterprises using local resources and improving the environment, economy, and the society (“local SDGs enterprises”), while making best use of its unique characteristics to network

with other communities and help each other. As the Circular and Ecological Economy represents an approach to solve local environmental, social, and economic challenges in an integrated manner primarily based on the independence of the local communities and in partnership with others, it may also be called local SDGs.

Concept of Circular and Ecological Economy



Column

Nanohana Eco Project to lead sustainable local communities to the future (Ai No Machi Eco Club)

In the 11th Good Life Award (a program to commend activities and initiatives related to “way of living friendly to the environment and society” conducted across Japan), the Minister of the Environment Grand Prize was given to Ai No Machi Eco Club, an NPO, from among the 202 applicants. The Nanohana Eco Project, which was launched in 1998 in Higashiomi City, Shiga Prefecture, has its roots in the Lake Biwa “Soap Movement”. It is a local resource circulation project for the manufacturing of rapeseed oil, including rapeseed cultivation, and the refining of biodiesel fuels using recovered waste edible oil. In 2005, Aito Eco Plaza Nanohana Kan, which is the base for this project, was constructed. The NPO that is the designated

manager, citizens, administrative officials, and experts have worked together to continue this project for 25 years.



Rapeseed oil “Nabakari” produced from rapeseed cultivation

Source: Ai No Machi Eco Club (NPO)

Example case

Passing on traditional culture and creating a new one—Upcycling of Meisen kimono (Ay)

Ay, a company located in Maebashi City, Gunma Prefecture, was founded in 2020 by a university student. Under the ideal of disseminating the culture and history of Gunma Prefecture, Ay upcycles the “Isesaki Meisen” brand of kimono (traditional Japanese garment), for which Gunma Prefecture is famous, and designs, manufactures and sells products such as clothing and accessories.

Meisen is silk kimono that is distinctive for its bold colors and modern designs, such as abstract and geometric patterns. Currently, as production has been discontinued in some regions because of the aging of artisans and the shrinkage of the market, this is a declining tradition.

All manufacturing processes for Ay’s upcycled products, which features Meisen’s distinctive characteristics, are implemented at a factory in Gunma Prefecture. Cloth materials other than

Meisen used in those products are also sustainable ones. As a result, the manufacturing of upcycled products not only gives consideration to environmental loads that arise during product life cycles but also leads to the dissemination of the history and industrial heritage of Gunma Prefecture, for which the spinning and textile industry used to be the main industry.

As a result of the decline of the industry and a decrease in the number of manufacturers, the available volume of Meisen cloth is limited. Therefore, Ay has now taken on the challenge of going beyond preserving and passing on the traditional culture to creating and disseminating a new culture. For example, the company has created a database of patterns used in Meisen kimono and develops original cloth materials, and manufactures miscellaneous goods and yukata summer kimono with a modern style.



Isesaki Meisen kimono



Photos of upcycled products

Source: Ay

2 LIFESTYLE SHIFT

If one looks at Japan's GHG emissions on a consumption basis, approximately 60% of the total is reportedly due to households. To realize net-zero, not only national and local governments, companies, and other constituent units, but also all ordinary citizens need to change their familiar lifestyle.

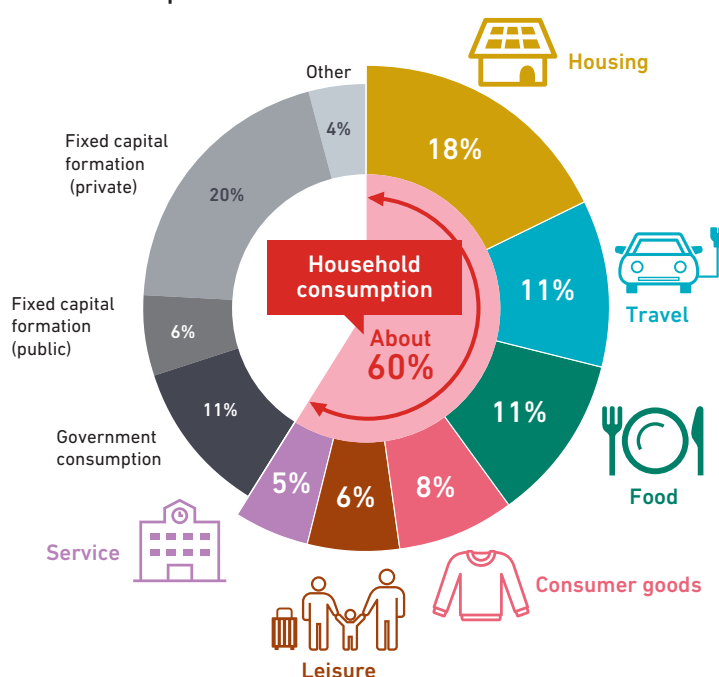
The conventional “mass-production, mass-consumption, mass-disposal” type of lifestyle is deteriorating

“ecosystem services,” which are the various blessings that nature provides to support us with food, clothing, and shelter. To realize a green society, we need to change our lifestyles from the aspects of housing, travel, food, and fashion to reduce GHG emissions, reduce waste, and place value on resource circulation and natural resources through the 3Rs + Renewable.

Japan's Life cycle Greenhouse Gas Emissions on a consumption basis

Source: Estimated by National Institute for Environmental Studies and Institute for Global Environmental Strategies (IGES) based on: Keisuke Nansai, “Embodied Energy and Emission Intensity Data for Japan Using Input-Output Tables (3EID)” (National Institute for Environmental Studies, 2019); Nansai et al. Resources, Conservation & Recycling 152 104525 (2020); and Ministry of Internal Affairs and Communications, “Input-output Table 2015”

Note: Each item represents the calculated total amount of greenhouse gas emissions (carbon footprint) throughout the life cycle (i.e., resource extraction, material processing, product manufacturing, distribution, retail, use, disposal) of each consumption/fixed capital formation product or service in Japan (numbers do not match direct emissions based on domestic production).



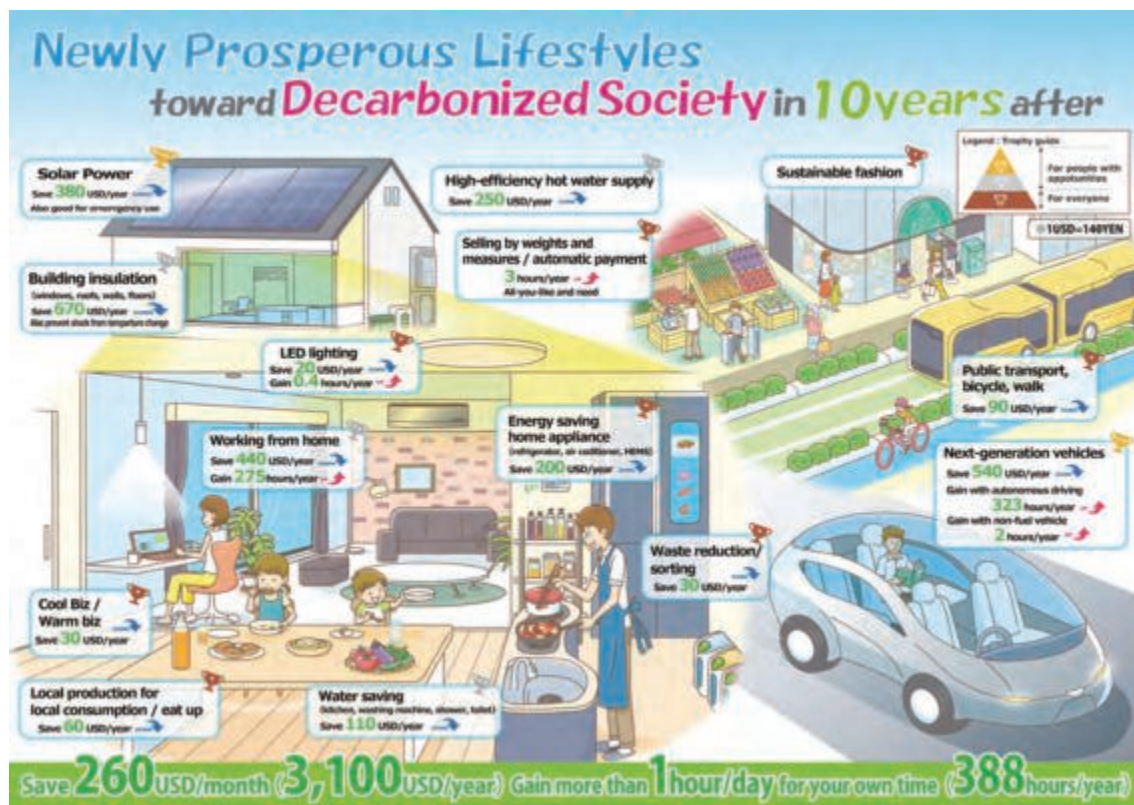
DECOKATSU

(National Movement for New and Prosperous Lifestyles toward Decarbonization)

To achieve net-zero GHG emissions by 2050 and the reduction target for FY2030, it is necessary to significantly reduce CO₂ emissions in the field of lifestyle. Therefore, in order to encourage changes in the behavior of Japanese citizen and consumers and a lifestyle shift, the Ministry of the Environment launched the National Movement for New and Prosperous Lifestyles toward Decarbonization in October 2022 and dubbed it “DEKOKATSU*” in July 2023.

Under the DECOKATSU movement, the Ministry of the Environment has proposed “Newly Prosperous Lifestyles toward Decarbonized Society in—10 years after,” an overall vision of the citizen's future lifestyles that encompasses general aspects of life, including how they dress, eat, live, work, move, and purchase and is implementing initiatives to create “Newly Prosperous Lifestyles toward Decarbonized Society” for the people in cooperation with local governments, companies, associations, and other entities.

*Note: “DECOKATSU” is a newly coined word that combines these words, “DE” carbonization, “ECO”, and “Katsu”(Japanese word for activity and lifestyle).



Proposed Features of Newly Prosperous Lifestyles

Source: Ministry of the Environment

In addition, the Ministry of the Environment is stimulating new patterns of consumption and behaviors, and promoting the creation of demand for products and services in and outside Japan in parallel with a lifestyle shift by supporting the creation of enriching lifestyles for the people while cooperating with local governments, companies, associations, and other entities participating in a public-private partnership council (DEKOKATSU Support Team), which was established at the same time as the launch of the DEKOKATSU movement. In order to further accelerate this initiative, we have

bundled budget items related to lifestyles, such as the net-zero emissions initiative within the ministry, into the DECOKATSU related budget and appropriated slightly below 300 billion yen under the FY2023 supplementary budget and the FY2024 initial budget.

As a specific DECOKATSU activity, we will encourage the creation of enriching lifestyles for the Japanese citizens by disseminating information registered by local governments, companies, associations and other entities on a newly opened website under the following four approaches.

- 1 — Encouraging diverse and comfortable ways of working and lifestyles taking advantage of digital technology (e.g., telework, relocation to rural regions, and workation)
- 2 — Proposing and providing products and services that support New and Prosperous Lifestyles toward Decarbonization
- 3 — Encouraging behavior change through incentives and effective dissemination of information (actions based on nudge theory (hereinafter “nudge actions”); including dissemination of consumers input)
- 4 — Proposing and supporting lifestyles particular to local communities (suited to the climate, culture and other features of each community)

(The number of information items published on the website as of March 2024 [1] information related to digitalization: 39 items; [2] information related to products/services: 197 items; [3] information related to incentives: 125 items; and [4] information related to local communities: 35 items; total: 396 items (some items are related to two or more categories))

Moreover, as initiatives to enrich and upgrade the citizen's lifestyles, the Ministry of the Environment determined the following 13 actions and is calling for each and every individual to practice DECO-katsu in everyday life: [1] "Four Actions to take first," [2] "Three Actions to Unconsciously Reduce CO₂," and [3] "Six Actions to take by each of us."

In addition, in order to promote the diffusion and penetration of DECOKATSU, we are calling on organizations (local governments, companies, and associations) and individuals to make a "DECOKATSU Declaration" and are requesting the dissemination of information on the DECOKATSU activities that they conduct in everyday life through SNSs with the hashtag #DECOKATSU (in Japanese) to spread the movement. We are also implementing various other measures, including holding the DECOKATSU Action *Ogiri* (Improv Comedy) Event," which gives the Minister of the Environment award to successful applicants selected from among those who responded to the solicitation for individuals,

including employees, as well as organizations, companies, and associations to conceive and submit slogans related to "My DECOKATSU actions," "Our DECOKATSU actions," "Our company's DECOKATSU actions," and "Our town's DECOKATSU actions."

Going forward, based on the 10-year roadmap of lifestyles, published in February 2024, we will use every occasion to promote the DECOKATSU movement in order to structurally resolve the challenges and bottlenecks that are in the way of behavior change and lifestyle shift in general aspects of the people's lives while using the DECOKATSU related budget. For example, we will effectively promote activities conducted through cooperation between the public and private sectors.



DECOKATSU Action *Ogiri* Event
Source: Ministry of the Environment

Example case

CO₂ emission coefficients specific to time periods of the day and nudge actions for daytime EV recharging

A nudge action is a policy device to help people spontaneously choose better options for themselves, using knowledge gained from behavioral science. As part of the Ministry of the Environment's nudge project, D-Sharing Co., Ltd., using an own patented technique for calculating CO₂ emission coefficients specific to time periods of the day, has developed a technique to evaluate environmental considerations on a household-by-household basis based on precise calculations of CO₂ emissions associated with electricity usage. Using this technique, we are conducting demonstration experiments to promote, in addition to electricity saving, electricity usage and recharging of electric vehicles in time periods when the share of renewable energy in power generation is large.

In one experiment, a smartphone app was used to record the status of recharging of electric vehicles on a daily basis. The experiment demonstrated that the percentage of households that recharge electric vehicles in the daytime period, when CO₂ emissions are small, registers a statistically significant increase as a result of the following nudge actions: showing data on the volume of CO₂ emission reductions in the case of daytime recharging compared with recharging at

night, when the CO₂ emission coefficient is large because of the relatively large share of thermal power generation; showing the rankings of users of the abovementioned app based on the volume of CO₂ emission reductions; giving small monetary rewards (points) in accordance with the volume of CO₂ emission reductions.

The volume of electricity generated from renewable energy may change significantly depending on the time of day, so it is possible to encourage the effective use of renewable energy by showing data by time of day.

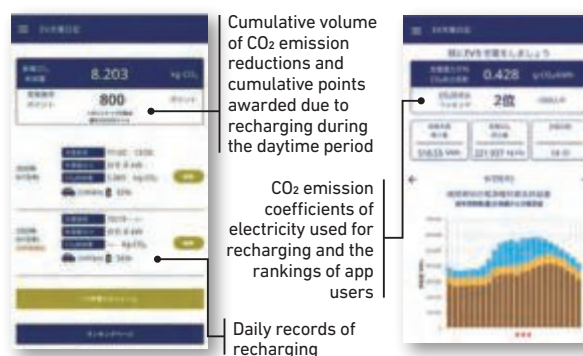


Image of the smartphone app interface

Source: D-Sharing Co., Ltd.

3 PROTECTING HUMAN LIFE AND THE ENVIRONMENT

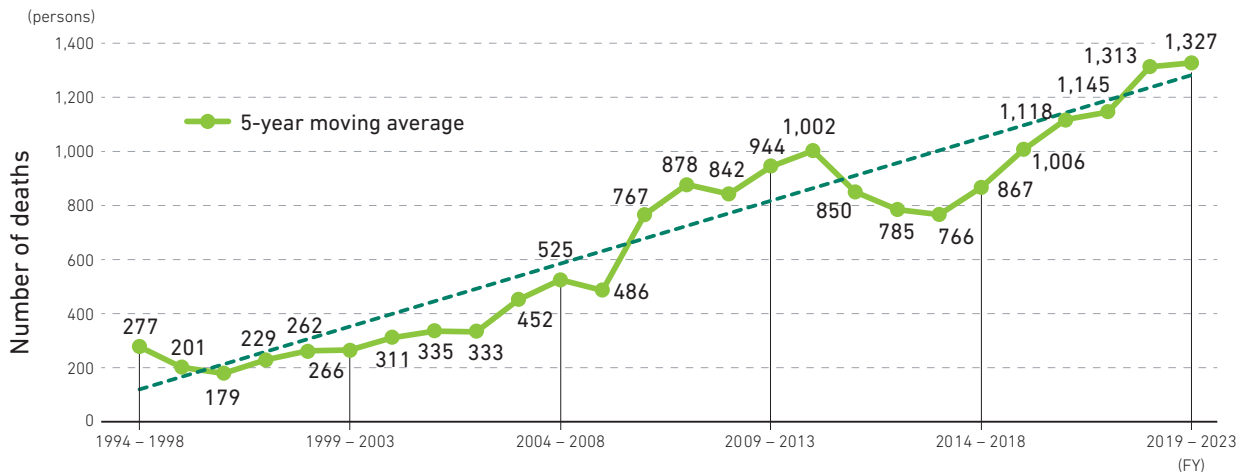
The aggravating heat illness problem

In recent years in Japan, the numbers of ambulance transports and deaths due to heat illness have been alarmingly high. Between May and September 2023, approximately 91,000 people were transported to emergency hospitals. Between 2019 and 2023, the annual fatality on a 5-year moving average basis has been 1,327. The number of deaths due to heat illness has continued to trend upward. In recent years, the

annual number of deaths due to heat illness has frequently exceeded 1,000 people and has been higher than the number of deaths due to natural disasters.

As global warming progresses, the risk of extremely high temperatures is expected to increase. As such, countermeasures against heat illness are an urgent issue in Japan.

Heat illness fatalities (5-year moving average)



Source: Ministry of the Environment, based on Ministry of Health, Labour and Welfare, "Vital Statistics"

4 FUNDAMENTAL ENHANCEMENT OF COUNTERMEASURES

In order to further promote countermeasures against heat illness, in April 2023, the Act to Partially Amend the Climate Change Adaptation Act and the Act to Partially Amend the Act on the Environmental Restoration and Conservation Agency, Independent Administrative Agency (Act No. 23 of 2023) was passed and enacted in the 211th Diet session. This law upgrades the existing action plan regarding countermeasures against heat illness into a statutory plan subject to cabinet decision in order to promote countermeasures through closer government-wide cooperation. The law also designates the Heat Stroke Alert as statutory information and prescribes that when there is the risk of serious health damage, a higher level of alert, Special Heat Stroke Alert, should be announced. In addition, when a Special Heat Stroke

Alert is announced, the law empowers mayors to designate facilities meeting certain criteria, such as having air-conditioning equipment installed, as cooling shelters to be made available for residents and designate private-sector organizations engaging in efforts to disseminate and raise awareness about countermeasures against heat illness as heat illness countermeasures dissemination organizations. In May 2023, the Heat Illness Prevention Action Plan, based on the Climate Change Adaptation Act (Act No. 50 of 2018), was approved upon a cabinet decision. The action plan set a medium-term goal (to be achieved by 2030) of halving the number of deaths due to heat illness (on a five-year moving average basis) from the current level and called for the enhancement of measures taken by relevant ministries and agencies.