



INTERNATIONAL FEDERATION  
FOR HOME ECONOMICS

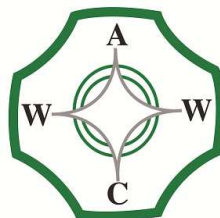
## **IFHE POSITION STATEMENT**

**on the**

### **UN Sustainable Development Goal 6**

**“ENSURE AVAILABILITY AND SUSTAINABLE  
MANAGEMENT OF WATER AND SANITATION FOR ALL –  
THE 2030 SUSTAINABLE WATER AGENDA  
AND HOME ECONOMICS”**

**with Input of the  
Associated Country Women of the World  
(ACWW)**



## **IFHE Position Statement on the UN Sustainable Development Goal (SDG) 6 with Input of ACWW:**

### **“ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL – THE 2030 SUSTAINABLE WATER AGENDA AND HOME ECONOMICS”**



#### **Introduction**

The 2030 Agenda for Sustainable Development includes a strong goal on water and sanitation. SDG 6 demands from all actors all around the world - be it governments, civil society, scientists, private entrepreneurs, to “ensure availability and sustainable management of water and sanitation for all”. This goal manifests an ambitious and integrated water agenda.

It is ambitious, because now,

- the aim is not only to half the proportion of people without access to improved water sources and basic sanitation - as has been the case within the Millennium Development Goal (MDG) targets -, but to strive for universal access, so that every single person has clean drinking water and a hygienic toilet in the year 2030.
- not only access to improved water sources is considered, but it calls for access to clean drinking water, that is really safe.

The SDG 6 outlines an integrated agenda, which considers not only access to water, sanitation and hygiene but its eight targets also include:

- wastewater treatment,
- recycling and reuse,
- freshwater quality and water resources management,
- water-use efficiency and sustainability and
- the protection of water-related ecosystems.

It calls upon expanding international cooperation and capacity-building support and strengthening of participation of local communities. In addition, water-related targets are embedded in other SDGs which have to be taken into consideration. This calls for a holistic approach or the application of the nexus-principle, taking synergies and trade-offs into consideration when taking decisions.

## SDG 6 and its Relation to Home Economics

Water and sanitation within the sustainable development agenda is a vast field to which governments and stakeholders on all levels but also Home Economics and Home Economists can contribute in many ways to take up the challenge and get engaged.

But achieving SDG 6 requires multilevel perspectives: global, regional, national and communal. The contested global level implies issues such as trade with virtual water, tourism, water-related disaster management, global public health threats, fertilisers and pesticides in agriculture and household plastic bags in lakes and oceans - just to mention some examples. The globality of water as evidenced in SDG 6, should truly guide communal, national, regional and international water and sanitation policy, planning and awareness rising.

Water sources are experienced by consumers be it individuals, families and communities as a locally available good and as having strong and different local implications. This is the basis for Home Economics research, education, family services and advocacy.

According to its founding principles IFHE supports improving the quality of everyday life for individuals, families and households.

Based on the IFHE Position Statement Home Economics content draws from multiple disciplines, synthesising these through interdisciplinary and transdisciplinary inquiry. This disciplinary diversity coupled with the aim of achieving optimal and sustainable living means that Home Economics has the potential to be influential in all sectors of society by intervening and transforming political, social, cultural, ecological, economic and technological systems, at glocal levels. This is driven by the ethics of the profession, based on the values of caring, sharing, justice, responsibility, communicating, reflection and visionary foresight. Home Economics can be clarified by four dimensions or areas of practice:

- as an *academic discipline* to educate new scholars, to conduct research and to create new knowledge and ways of thinking for professionals and for society,
- as an arena for *everyday living* in households, families and communities for developing human growth potential and human necessities or basic needs to be met,
- as a *curriculum area* that facilitates students to discover and further develop their own resources and capabilities to be used in their personal life, by directing their professional decisions and actions or preparing them for life,
- as a *societal arena to influence and develop policy* to advocate for individuals, families and communities to achieve empowerment and wellbeing, to utilise transformative practices, and to facilitate sustainable futures.

This chapter of SDG 6 focuses on water and sanitation, thus giving guidance to policy makers, stakeholders and Home Economists by informing its members and member organisations about the actual situation, current challenges and possible ways to help reaching the sustainable water and sanitation goal.

The objective of this chapter is to describe the situation of water availability and sanitation worldwide and its relation to the above mentioned Home Economics dimensions including the demands for policymakers and stakeholders to support the targets of SDG 6. It ends with conclusions and recommendations for Home Economists and IFHE addressing key people in politics and administrative boards.

## **Challenges and Demands to reach SDG 6**

### **Targets 6.1 and 6.2**

Even after 15 years of great efforts around the globe to reach the water and sanitation targets within the MDG agenda, basic needs are not met and the human right to water and sanitation remains unrealised for billions of people. Therefore it was still necessary to include the demand for clean drinking water and adequate sanitation into an SDG. In addition, target 6.1 and 6.2 are based on the human right to water and sanitation decided by the United Nations in 2010.

This requires recognition of the human rights principles of non-discrimination and equality, transparency, participation, accountability and sustainability as well as the respect of the human rights criteria respectively the content of the human right that is availability, physical accessibility, quality and safety, affordability and acceptability/dignity/privacy. Any person, men, women, children, elderly, disabled must have equal and non-discriminatory access to a sufficient amount of safe drinking water for personal and domestic uses, for drinking, washing of clothes, food preparation as well as personal sanitation and hygiene. Water sources and sanitation facilities must be safely accessible without barriers, available in the near surroundings and must be affordable so that also the poorest can enjoy these facilities.

However, UN Women says around the world women and girls still trek long distances to get water to meet their families' basic needs. The time demands are enormous. In sub-Saharan Africa, for example, women and girls spend 40 billion hours a year collecting water, equivalent to a year's worth of labour by the entire workforce in France. This is one of the factors that also prevents many girls from being able to go to school regularly.

IFHE and Home Economist supports the SDG target 6.1 and 6.2 and advocate on all levels for drinking water, which must be safe and free from faecal or chemical contamination and toilets have to be hygienically, clean, equipped with hand washing facilities, lockable or gender separated and culturally acceptable. In the future the focus must also be widened beyond the home. Toilets are needed in schools, clinics, workplaces, markets, bus- and railway stations and other public places.

The water crisis has been identified by The World Economic Forum as the global systemic risk of third highest concern. Many developing countries are struggling to cope with today's water and sanitation management challenges arising from population growth, rapid urbanisation and increased economic activity. It is on this background that policies, science, practice, technology, institutions, and infrastructure to improve drinking water, sanitation, hygiene and wastewater management must be put in place. IFHE underlines the significance of the human right for clean drinking water and the urgency to take action for improved sanitation facilities.

The world's drinking water situation – the clean side of the business – has been improving; however there is still cause for concern. In 2012, at the World Water Forum in Marseille, the UN Secretary-General announced that the international community reached the MDG target to halve the proportion of people lacking access to safe drinking water three years before the 2015 deadline. This meant nevertheless that still 672 million people were left without access to improved drinking water sources in 2015. While this was a welcomed achievement, within the MDG framework, there is an important caveat, as it does not show the exact picture. The proxy indicator used to measure progress towards the target “safe drinking water” was access to an “improved drinking water source”. This indicator has limited meaning, as it does not represent a reliable measure of drinking water safety. In fact, a recent study commissioned by the World Health Organization (WHO) and UNICEF estimates that at minimum 1.8 billion people globally use faecal contaminated drinking water.

The global sanitation problem – the dirty side of water – requires an even more urgent attention. The figures of the WHO/UNICEF Joint Monitoring Programme (JMP) show very clearly that the MDG target has been missed by almost 700 million people. 2.4 billion people still lack improved sanitation facilities and 946 million people practice open defecation.

In many parts of sub-Saharan Africa, less than half the population uses a toilet fit for human beings. In South-East Asia almost 40% of the population defecates in the open. In cases where toilets exist, it is important that they hygienically separate human excreta from human contact. But this by itself is not sufficient to protect health. There are other key factors. For example, excreta is often captured in latrine pits, however the faecal sludge is then dumped into surrounding water bodies having major negative health impacts on communities and the environment at large. Approximately 90% of communal wastewater in developing countries is discharged directly into rivers, lakes and seas. As a consequence to realise sanitation's health benefits IFHE demands governments, policymaker and local actors to consider the full sanitation chain, including wastewater management.

Hygiene poses another global health challenge and it is to be applauded that hygiene is integrated into SDG 6. Its prioritisation recognises its importance; facts show that hand washing with soap could save 300,000 people annually. Safe drinking water and sanitation in the absence of hygienic behaviour will not prevent faeco-oral infections. Many households, for example, have no other option than to store water. Even if the original source of the water is safe, the water is frequently contaminated by unhygienic conditions and practices at home. Across the developing world, handwashing and menstrual hygiene facilities along with toilets guaranteeing privacy are not available in schools thereby deterring attendance, particularly for adolescent girls. Especially in some parts of the developing world toilet facilities are lacking totally in many rural schools. For many girls this leads to missing school during their period or dropping out altogether, once they enter their menstruation age. Hygienic behavior is a central subject of Home Economics education, which can support prevention of faeco-oral infections. It is clear that especially for women and girls it is important to break the vicious circle by focusing on sanitation and hygiene. Hygiene's health benefits are well documented, and hygiene is now part of SDG 6. IFHE advocates for Home Economics education and training to implement and improve hygiene conditions and behaviour and as there is no monitoring framework to track the uptake of improved hygiene practices, IFHE will use its influence so that indicators be developed.

Nobody will deny that adequate drinking water, sanitation and hygiene are essential ingredients to ensure human health. The burden of water-related diseases curtails efforts to improve public health especially in the developing world. Diarrhea – most often related to unsafe drinking water, poor sanitation and inadequate hygiene – is one of the leading causes of death among children under the age of five and counts up to 840,000 deaths in low and middle-income countries in 2012. It is more deadly than Malaria or HIV/AIDS.

There is growing evidence that repeated exposure to unsafe drinking water; poor sanitation and inadequate hygiene have a significant impact on stunting. Intestinal worm infections, diarrheal diseases and environmental enteropathy result in a poor nutritional status. Cholera is also transmitted via contaminated water. The cholera epidemic in Haiti has killed more than 8,000 people since 2010. Home Economics Education enables women, children and all household members to follow basic hygienic knowledge and skills to promote human health.

Latest news about cholera outbreak threatening Dadaab in northern Kenya, the world's largest refugee camp, should wake up everybody. Ebola in West Africa could have been contained, if the conditions had been hygienic.

Taking all of the above into account, water, sanitation and hygiene need to be a priority of policy makers, stakeholders and will be on the agenda of the Home Economics community.

Local public health and extension workers have to play a big role in the prevention of such avoidable diseases – with equal or greater importance than curative approaches. To translate this recommendation into practice, IFHE advocates that the WHO along with other actors, should consider policies on drinking water, sanitation and hygiene as preventative medicine. By influencing funding allocation and policy design, this could provide real health benefits. Further it could bring dignity, equality and safety to individuals, families and communities. Improving the lives of billions of people would also make economic sense. The WHO estimates that for every US dollar invested in improved drinking water and sanitation there is an economic return of four US dollars resulting from health and productivity gains. World Bank figures show that countries in sub-Saharan Africa on average lose more than 4% of their Gross Domestic Product (GDP). Bangladesh and India are losing more than 6% of their GDP because of inadequate sanitation. The evidence is clear - poor sanitation and water supply keep countries poor.

In this context societies are facing huge challenges. Home Economics' scientists and practitioners on all levels will challenge the UN system and especially its monitoring institutions by an initiative of IFHE to fill this gap, raising the awareness of the great impact of personal and household hygiene on health and appeal to responsible decision makers on all levels to install related programmes.

### Target 6.3

Target 6.3 focuses on water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally until 2030.

This target is composed of different aspects, which also ask for different problem solutions and is not only related to agriculture or industry. The United Nations Environment Programme (UNEP) makes clear, new threats to aquatic ecosystems are also coming from consumers, for example by pharmaceuticals and personal care products. IFHE advocates for immediate attention by regulatory authorities at all levels and asks consumers not wait for governments to decide on rules and regulations but simply change their consumption patterns. Home Economists in all professional fields and contexts will exert their influence in this regard.

Home Economists working in communities, education or training can contribute to handle human waste appropriate. As mentioned above, almost one billion people are still defecating in the open space and almost 90% of communal sewage in the developing world is being discharged untreated into our living environment. Thus microbial pollutants are a huge threat and often result in infectious diseases such as cholera and typhoid fever, stunting and malnutrition. But it can also infect aquatic life and terrestrial life. In rapidly expanding cities, and there especially in poor areas, faecal sludge is a growing challenge. Not only should Home Economists support campaigns and advocate to increase the building of toilets but also, in the face of the fact that the number of toilets is indeed increasing, professionals in Home Economics education and extension services should help to adopt a positive approach: waste should be seen as a resource. It is necessary to promote the idea to look more carefully into using the by-products of faecal sludge: the excreta can be used to produce compost or biogas; urine can be used as fertilisers, this of course under safety precautions!

Household waste is composed of many different components. Take plastic bags, threatening the life of fish all over the world, making approximately eight million tons every year in the oceans. It is estimated that plastic waste will increase tenfold in the next decade unless the world finds a way to improve how garbage is collected and managed and how production processes are altered to obey sustainability criteria. Home Economics sciences and research on consumption patterns can contribute to solutions in this matter. As a start, consumers should be encouraged not to use plastic bags but to bring their own bags to the shops.



Beyond visible plastic, another thread to our environment are micro particles, coming from degraded plastic. Jan Andries VAN FRANEKER, from the Wageningen University, estimates the globally combined mass of micro plastic particles at 93,000 to 236,000 metric tons. Huge amounts of plastics are thus “lost” in our oceans. This maybe even more worrisome than the known plastic soup itself and the trash-islands or garbage patches.

To take up the challenge, since many years Home Economists in education and family services support sustainable consumption and contribute by informing about and helping to make alternatives to plastic bags for shopping available. As advocates they enlighten and make communities implement sustainable ways of handling waste, garbage and rubbish in order to avoid water pollution and its danger for human beings and biodiversity at large.

Another threat are micro particles incorporated in personal and household hygiene products for their „improvement“. Although proportionally private households are contributing only a small part to this kind of pollution, it is nevertheless unnecessary. Consumers often do not know that micro particles are in peelings, cleaning agents, cosmetics and personal care products, paint and coatings to make them smooth, to regulate the viscosity of liquids and creams and to form a better film on the skin. Home Economics education can integrate these aspects in education for sustainable lifestyles.

According to the Federal Environment Agency of Germany the European Union discharges approximately 3,125 tons per year of micro particles from polyethylene coming only from personal care products.

In recent years concern has been growing over pharmaceuticals, be it for human medication or in the veterinary medicine, be it from prescription drugs or over-the-counter medications, getting into lakes, rivers, and streams. Painkillers, blood thinners, hormones also cocaine and amphetamines take their way through human and animals' bodies.

In Germany alone - just to use an example to illustrate the worldwide existing problem - 8,100 tons of environmentally relevant pharmaceuticals are used per year, with approximately 1,500 different agents. In veterinary medicine in Germany antibiotics, antiparasitika, anti-inflammatory drugs and hormones are the mostly used drugs, out of which the biggest bulk are antibiotics with 1,700 tons per year. More than 100 different substances can be found in almost all of Germany's surface waters, in groundwater and occasionally even in drinking water. The problems are manifold and the risk was so far underestimated.

Drugs in water pose a special challenge to wastewater treatment, as conventional treatment methods are insufficient; an efficient decrease of residues can only be achieved if measures are taken all along the value chain up to its disposal.

On the consumer side, a more responsible handling of medicine is necessary. Home Economists in all working areas can point out all non-used medicine should go back to pharmacies and not be dumped somewhere else. Self-medication should be held at a minimum, preferably using easily degradable products.

Home Economists in education and training make consumers aware, that buying medicine, which will not be used and thrown away not only damages the environment but also is wasted money.

#### **Target 6.4**

Private households can do a lot using water more efficiently and thus contribute to SDG 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

Looking at different water-users from a global perspective, it shows that agriculture counts for 70% of all water consumption, compared to 20% for industry and 10% for domestic use.

Of course, this differs in different regions. Although it is clear that the smallest portion of water is consumed by private households, they do carry their responsibilities nevertheless, e.g. in educating children to handle water carefully as something very precious.

Almost half of small-scale farmers are women farmers, mainly dependent upon rain-fed agriculture. Unfortunately, rain-fed agriculture is becoming increasingly unreliable due to climate change. This means that farmers require storage structures, such as micro-dams, to collect rainwater for irrigation. In some parts of the world uncontrolled crop irrigation has lowered the water table or caused the soil to become salty and toxic to both humans and plants. This situation calls for more rational use of ground water and training in water harvesting methods. Rural women's groups in India and Kenya have demonstrated that they can play an essential role in maintaining watersheds, by replanting and protecting the woodlands and forests needed for their protection.

Rainwater harvesting can be applied all over the world. It provides water, when there are water restrictions during dry seasons, it can supplement the main supply and thus reduce the water bill, it can help to overcome scarcities during draught periods, it can reduce the water demand on wells, which might otherwise fall dry.

With proper treatment it can be used for domestic purposes - it even can be used for drinking water, as it is principally free of salinity - for small scale farming, for animals and irrigation of gardens. Besides the traditional rooftop rainwater harvesting, there are manifold technologies described in the literature and different offers in the internet, from rain barrels, cisterns, earthworks-curb-cuts to rain saucer systems and so called groasis waterboxx, the latter specially designed for catching water to help grow trees in dry areas.

The use of greywater is another possibility to unburden scarce water resources and at the same time our sewage treatment plants. Greywateraction from California - the former "Guerrilla Greywater Girls" - tells us that greywater is gently used water from bathroom sinks, showers, tubs, and washing machines. It did not come into contact with faeces, either from the toilet or from washing diapers. It may contain traces of dirt, food, grease, hair, and certain household cleaning products, yet it is a good source of irrigation water in the garden. If greywater is released into rivers or lakes the nutrients become pollutants, but to plants, they are valuable fertiliser and help vegetables, flowers and fruit trees to grow.

But it is not only in private households that greywater can be reused. The National Environmental Engineering Research Institute in Nagpur, India, for example demonstrates how to do it in schools. Parents can get involved to have their children's schools adopt a strategy of "wise water management" as the subtitle of this publication says.

How can water loss be reduced? This question has long not been posed, as most water losses are not seen and what cannot be seen often does not exist or is easily forgotten.

During the UN Decade "Water is Life" between 2005 and 2015, the UN Water-Decade Programme on Capacity Development (UNW-DPC) was set up after it was clear, that water loss did not get the attention as needed. Water loss, only through dilapidated pipe systems, amounts globally to 45 million m<sup>3</sup> a day, that could serve 200 million people and has a value of 18 billion US \$ according to UNW-DP. The megacities of Manila, Mexico and Sao Paulo are losing more than 50% of their water. Water operators and water suppliers are challenged to fix these pipes. But what happens in the household? Are the taps dripping, the flush of the toilet loose or the pipes out of the house into the communal system rotten; does the communal pipe in our neighbourhood leak?

One outstanding example to address these questions are the Water Wise Women Plumbers, trained in Jordan with the support of the Jordan Hashemite Fund for Human Development (JOHUD) and the German International Cooperation (GIZ). They can repair water leakages in their own house, but also in other households during the day, when only women are at home and no male plumber could enter the house. Their work, to reduce water losses in the household, to improve water leak detection, to improve relationship with water providers is very important as Jordan is one of the most water-scarce countries in the world and every drop counts. In order to increase water efficiency, producers of household appliances, e.g. for washing machines and dishwashers, should be urged to enable processes with less water, reusing water and informing consumers about those offers. Household Technology can focus on this question and can develop recommendations for households and industries, which produce domestic appliances.

Many people do not care much about the amount of water used in their households, as water in their immediate surroundings may be available all day and of good quality. In addition, in some countries it is very cheap, so there is no pressure to manage water use efficiently.

As the awareness for sound water management is rising, in some countries water saving fittings now are becoming standard in newly built houses for water flushing toilets as well as for showers and washing basins.

Improvements have also been made in getting water circulation more visible and natural: grass roofs, open water rinses, little lakes and rivers are part of the ecological building programmes of individual countries and communities preparing the public for the expected climate irregularities like droughts and floods related to climate change.

Another aspect is water waste through food waste. According to FAO figures, one third of the food produced today is thrown away.

This equals roughly 1.3 billion tons a year. Food is lost after harvest, is wasted along the distribution and consumption chain and food is thrown away by consumers. Besides the economic costs amounting to 750 billion US \$ the amount of water being squandered with this food was in 2007 alone, 250 km<sup>3</sup>, almost three times the volume of Lake Geneva, or the annual water discharge of the Volga River. Figures show, that in developing countries most of the food gets lost at post-harvest and processing level, while in industrialised countries most gets lost at retail and consumer level.

The waste of consumers in Europe and North America is between 95 - 115 kg per person a year, the consumers in sub-Saharan Africa, south and southeastern Asia, each throw away 6 - 11 kg a year. These are alarming figures, not only due to the fact that according to the World Food Programme some 795 million people in the world do not have enough food to lead a healthy life. In addition the world population is growing and day after day additional earth-dwellers have to be fed.

Since several years Home Economists in the academic area, in education and training, in family services or as advocats are committed to help reduce food waste and implement projects and programmes on this issue. Action should also be taken on the political level. Home Economists can influence for example European regulations and standards in order to have the aesthetic requirements for fruit and vegetables revised. Supermarkets can sell “misshaped” items for a reduced price at the same time helping raise consumers’ awareness that odd-shaped does not mean bad. Consumption habits actually have to be modified: For example restaurants and food chains should offer “small portions” as options.

Home Economics education especially in the subject food security and sustainable consumption discuss already options in which way food waste can be reduced. For example in private households it has to be ensured that refrigerators are working properly and effective use of leftovers should be made. But also markets can be developed for products that are rejected by retailers but still good for consumption. Cities and local governments should surge to efficiently and effectively recycle food waste. For example rather than merely disposing of such waste in landfills, it can be at least a resource for producing fertiliser and biogas.

### **Target 6.5**

Activities of private households do have global transboundary implications, although it may not be very obvious. SDG 6.5 claims that, by 2030, integrated water resources management should be implemented at all levels, including transboundary cooperation as appropriate.

The concept of virtual water helps to learn, how much and from which countries water is coming from.

Virtual water is the water embedded in products and used in the production process of goods that people consume, be it for example food, textiles, furniture, household equipment or cars.

Just to give some examples: to produce 1kg of beef costs 15,400 litres, 1kg cheese 3,178 litres, 1kg tomatoes 214 litres, 1kg maize 1,122 litres, 1 kg of rice 2,497 litres, 1 cup of coffee 132 litres, 1 glass of tea 27 litres, 1 cotton shirt 2,495 litres. The amount of water used to produce a car ranges from 52,000 to 400,000 litres. Half of the virtual water of Germany's water footprint is imported and most of it comes with agricultural products from Brazil and Ivory Coast, influencing the water situation there.

So, minimising the contribution to the water problems in the world means, to reconsider personal consumption patterns. Calculators, offered by various providers in the internet, can help to inform about the water footprint of products - be it food, textiles or luxury goods.

To spend vacations abroad is another global or transboundary dimension of our water consumption. Many tourists from industrialised water-rich countries spend their holidays abroad on sunny beaches. Often these beaches are situated in water-stressed areas.

For example, researchers from the Ruhr-University of Bochum, found that water consumption in Mallorca - a much-liked destination by tourists - directly correlates with the level of tourism development and the dominant tourism activities. Water consumption ranges between less than 100 litres per person and per day in rural areas to more than 400 litres in tourist centers. Golf players should know that a golf course there needs 2,000 m<sup>3</sup> of water a day. This is as much as a town of 8,000 inhabitants consumes. Already in the 1990s tourism led to the lowering of the groundwater level and salty sea water infiltrated the drinking water resources. Where fresh water is scarce, tourism and water-intensive recreational activities - like golf - can contribute to local and regional water shortages.

How will this affect the local population in the long term? This very much hints at a miscalculation of real costs, where benefits are privatised but costs are externalised.

Even less water intensive sports and enjoyment in water scarce countries will put some pressure on the local water situation. Take Egypt, a desert country with over 80 million inhabitants, only rain falls along the coast with only about 200 millimeters of precipitation per year and depending almost totally upon the Nile water.

In 2010 14.7 million tourists were recorded. To make an oversimplified calculation: Assuming that a tourist would consume 121 litres of water a day (the statistical average of consumption per person per day in Germany then), this would add 1,778.7 million litres of water to the local consumption, if the tourists would stay only one day. This poses a huge water burden on the country. IFHE demands awareness building and more transparency for consumers and tourists related to water use and water scarcity in the local and regional context. Home Economics education will contribute to enable families to save water as best as possible.

### **Target 6.6**

This target to “protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes by 2020” makes very clear, that our precious water can only be preserved and protected, if this task is seen as part of the wider environment protection. Forests are important for the water cycle, so it is of utmost importance to protect them by decreasing the use of wood for cooking in dry areas and spread alternative and renewable energy sources for household cooking. Where forests have been cut, reforestation, planting trees, where ever possible help to positively influence the climate and the water regeneration.

The Green Belt Movement in Kenya, just to give one example, was created around the conviction, that Kenya’s water towers have to be preserved through the preservation of the forests. Planting trees around the mountains has revitalised dozens of dried up springs, while providing the women with income, wood, fruit, and an education in ecosystem dynamics.

It should be a big encouragement that the founder of the Green Belt Movement, biologist Prof. Wangari MAATHAI, was awarded the Peace Nobel Prize for her and the women’s work in 2004. Also in India watershed protection is receiving tremendous support for its multiple benefits. It not only improves the livelihoods of the rural poor in much of dryland India, but also helps downstream beneficiaries, in the form of municipal water supplies, regular water flows, flood mitigation and reduction in sediment flow for hydropower generation. IFHE demands governments and communities to strengthen their activities to protect and restore water-related ecosystems. Sustainable farming methods are very important in order to protect rivers and groundwater from pesticide residues and excess nitrates, which can emanate from chemical fertilisers and farmyard manure. Training of sustainable farming methods in Home Economics and agricultural extension work must be part and parcel of the curriculum.

### **Target 6.a**

The International Federation for Home Economics and its members around the world will build bridges between professionals and activists for knowledge sharing and support and thus contribute to Target 6.a: By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.

### **Target 6.b**

Based on Home Economics competences and skills professionals can contribute actively to this target: support and strengthen the participation of local communities in improving water and sanitation management. They can be part of local community activities, should guide and support participation in identifying the problems and the tasks, should see that local communities are part of the planning and decision making process as well as the review and reporting activities. Home Economists will underline the necessity of including private households as water consumers into the municipal planning processes of water and wastewater management.

### **IFHE Conclusions and Recommendations to the SDG 6**

IFHE, its members and Home Economics experts as scientist, educators and trainers, professionals working in ministries, public services, institutions and in associations, involved in family services and institutional households and as advocates support actively the aims and targets of the SDG 6.

They advocate for:

- The availability of safe drinking water for human beings in households all over the world and lobby UN organisations to deal with water as a core issue of their mandate and allocate more core funding to water.
- The necessity of adequate sanitation including handwashing facilities, toilets that guarantee privacy especially for women and girls, at home and at public places.
- Home Economics education to improve the household hygiene in order to keep water safe.
- Creating alliances in campaigns to avoid plastic bags for shopping and thus decreasing the problem of polluting waterbodies with plastics.



- Enabling people to change their handling of medicine, to inform themselves about the content of plastic micro particles in households and personal hygiene products and reduce respectively avoid products accordingly.
- Informing stakeholders worldwide about the possibilities of rain water harvesting, water reuse and increasing the efficiency by repairing water leakages.
- Home Economics Education worldwide to enable
  - individuals, families and communities to reduce food waste and thus water waste.
  - individuals, families and communities to reflect the water footprint of consumption products.
  - tourists to consider their activities on the availability of water for the local population and food production in holiday places and push for regulations on water consumption in tourist places where water is scarce.

IFHE, having consultative status with the United Nations (ECOSOC, FAO, UNESCO, UNICEF) will use its status to:

- address concerns that hamper progress in achieving SDG 6 and call for nothing less than a full-scale water-cultural revolution within the UN and its member states.
- insist that appropriate indicators are being applied for measuring drinking water that is really safe and that indicators for hygiene are being integrated into the monitoring system of SDG 6.
- urge WHO, UNICEF and UN Habitat to ensure that the global regression in access to drinking water and sanitation in urban areas is better reported.
- help that WHO will endorse water, sanitation and hygiene as preventive medicine (primary prevention) thus breaking the vicious cycle of disease and malnutrition.

**A few selected sources:**

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