

# Water, Waste Water and Jobs

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The promotion of water supply is intended to improve people's quality of life through the provision of an adequate and safe water supply and a comprehensive sanitation system. Water supply projects primarily target improved health and environmental protection but are also selected and formulated from the point of view of job creation and job preservation.

Amongst other things, KfW promotes investment in water production, distribution, waste water disposal and water recycling. Total grants to the water sector (including waste water and refuse) amounted to around 720 million euros in 2011. These projects have both a direct and an indirect effect on employment in the partner countries.

## Direct effect on employment

The *building of the installations* creates new jobs or secures existing jobs within the construction companies who are awarded the contracts. Where possible, building services are put out to tender locally in the partner country in order to strengthen local businesses and improve local employment prospects. However, even when projects are put out to international tender, the majority of the work which takes place during construction benefits the national workforce since international companies also recruit locally as much as possible for cost reasons.

The *operation of the supply and treatment installations* also secures existing jobs or creates new ones, e.g. in the case of employees at water works and sewage plants or pump engineers who are required to carry out the regular maintenance of rural wells. At the same time, it can have adverse effects if, for example, inefficient water supply companies introduce rationalisation measures in order to

achieve an operationally efficient supply which is more economical for the consumer. Statistics such as the number of water supplier employees per 1,000 domestic connections are regularly collected and can provide an insight into the net impact on employment on a case-by-case basis.

## Indirect effect on employment

Indirect positive effects on employment can be significant if the state of the water sector in a state, region, city, town or village constitutes a significant hindrance to health. If the prevalence of water-borne disease is reduced, the workforce becomes healthier, which is extremely significant with regard to maintaining the livelihood of workers.

On the other hand, indirect negative effects on jobs can occur if central supply companies replace informal service providers (private water deliveries by lorry) or if an improved central water supply reduces the demand for bottled water and thus causes the turnover of bottle manufacturers and bottled water sellers to drop.

## Value creation chain of suppliers

Most water projects also aim to help local supply industries to develop. Water projects can therefore create jobs throughout the supplier value creation chain (including manufacturers of pipes, water pumps and solar panels, software manufacturers, chemical companies, security services, cement manufacturers and training providers). Temporary jobs are created here during the construction phase and permanent jobs are created when the supply and waste water disposal installations start operating.

## Freedom of choice for companies and households

The indirect effects of an improved water supply and waste water disposal system at



Source: Florian Rabe

## Water Services Trust Fund in Kenya

The Water Services Trust Fund provides urban water supply companies in Kenya with grants and technical support for poverty-orientated investment. Amongst other things, water kiosks are built to improve the water supply in urban slums and areas on the outskirts of towns and cities.

Water kiosks are little shops where clean drinking water is sold from taps. They are connected to the urban water distribution network, so the water's quality and price can be checked and guaranteed. Other daily necessities such as flour and soap are often sold alongside the water. Most female kiosk operators are able to live on their earnings from the shop and their small wage for maintaining the water station.

Within this programme, the KfW works closely with the German Agency for International Cooperation (GIZ) and the EU Commission. It has thus been possible to improve the water supply of more than half a million poor people in Kenya. The construction of 300 new water kiosks and the repair of another 40 has had a direct positive effect on employment. The kiosks have provided their operators with a new job and source of income.

*corporate level* are diverse. They differ depending on the company's sector, location and specific business model. A drinks manufacturer with no further need to produce its own water, a school that doesn't need its own spring, a dairy that no longer has to install its own water tank – all of these entities are given scope to develop and free capacity which they can use productively (productivity increase, reduction in costs).

At a *domestic level*, especially in rural areas, it is mainly women and girls who are responsible for water-related work. If water quality, water availability and waste water disposal improve, households have to spend much less time and money on fetching water, storing it, purifying (boiling) it and disposing of it. The reduced prevalence of water-borne diseases and corresponding reduction in expenditure on nursing lessens the load on women in particular. The time saved can be used productively in economic terms (e.g. through work which generates an income).

Water prices rarely fall as a result of development cooperation projects, since the starting level for water and waste water tariffs is usually too low to cover costs. However, here too, an improved water supply and waste water disposal system as a result of new investment and changed operating modes generate leeway for all those involved, which can have an overall positive impact on the demand for goods and services and thus on employment.

### **Water as a raw material**

Water is a raw material and input for numerous sectors including agriculture and forestry, fishing, the energy sector (e.g. hydroelectricity

and power station cooling) and industry. Along with energy, transport and communication, water is a location-determining factor for direct foreign investment and a tool for promoting industry and trade. An improved infrastructure for water supply and waste water disposal is also one of the bases for investment, economic growth, employment and combating poverty.

### **Water conflicts cost jobs**

If water shortages lead to distribution conflicts between users (water stress) and if this even causes cross-border conflicts between states, as the risk of war increases, the framework conditions for the economy, growth and employment suffer. In this case, water has a high potential for causing conflict and economic disruption. Water conflicts can be assumed to be detrimental to economic growth, costing existing jobs and impeding the creation of new jobs. This is why FC projects concentrate on integrated water resource management with the aim of preserving scarce water resources in order to avoid these conflicts about water.

### **Jobs for women?**

Very few jobs for women are created during the construction phase, since it requires hard physical labour. However, women do find work relating to the subsequent administration of water supply companies. Above all, tap attendants in rural systems and in urban systems with taps are often female. Women are also trained as mechanics who then regularly repair and maintain the water pumps as part of projects to supply rural areas with water. Overall, however, the direct impact on employment for women is less than for men in the water sector.

The indirect effect on employment in water-impooverished countries is, however, often more significant for women than for men. As mentioned above, improved access to scarce water resources by women can improve the conditions for productive, income-generating occupations.

### **Summary**

Development Cooperation water projects can help to preserve jobs and create new ones. Water supply and waste water disposal are both important influencing factors for health and major location-determining factors for the business sector, which is decisive for both formal and informal employment. ■

### **Further information**

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[http://www.kfw-entwicklungsbank.de/ebank/EN\\_Home/Sectors/Water/index.jsp](http://www.kfw-entwicklungsbank.de/ebank/EN_Home/Sectors/Water/index.jsp)