

Project title:

Consulting Services for Accompanying Measures for Wastewater Collection and Treatment Project Bihać

Name/s of the involved institution/s:

Municipality of Bihac (owner), PU Vodovod Bihac (Operator/Utility), KfW (Founding), Sachsen Wasser (Lead Consultant), AHT Group (Partner), Hydro Control (Local Sub Contractor)

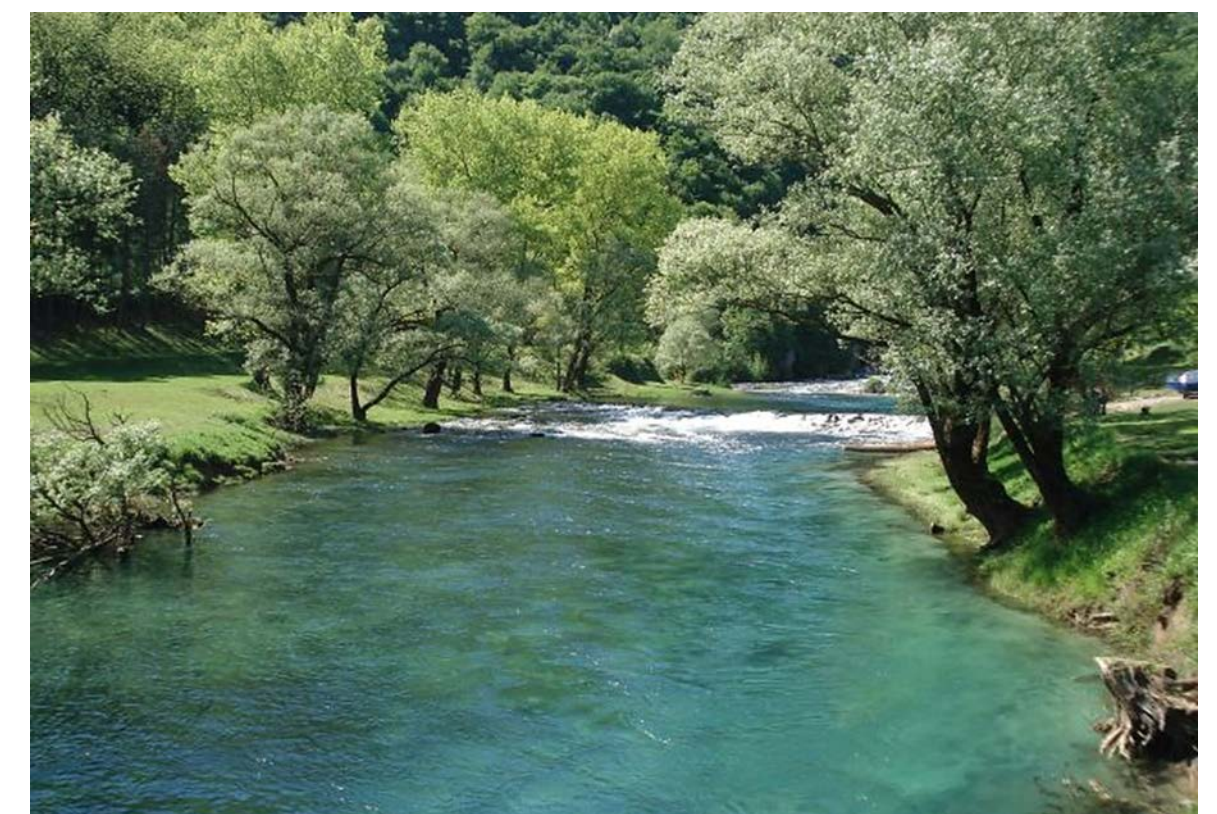
Three-line project description:

Enable JP “Vodovod” Bihać to:

- operate technically the water and wastewater assets, incl. WWTP,
- implement a long term solution for the sludge disposal/reuse
- act economically independently and sustainably maintain its facilities and networks

1. Institutional setting: What were the framework conditions for the practice that will be presented? (e.g. policy, legal regulation, instrument, reform approach, demand by people etc.; which actors/stakeholders were involved?)

- Municipality approached KfW with a request to financing the extension of the sewage network and construction of WwTP
- Project aims to ensure an environmentally sound and hygienic collection and treatment of wastewater and the sustainable provision of water and wastewater services for the City of Bihać.
- It shall contribute to the improvement of living conditions for the population of Bihac and to the protection of natural resources.



2. Starting point: What was the main challenge / issue / problem to be addressed by the practice?

- **Unwillingness of customers to get connected to new sewer:** high costs, different connections fees (distance to sewer), unclear legal situation
- **Outdated organisational set-up:** departments overstaffed, vertical command structure with unclear processes, integration of WWTP-team
- **Sludge issues:** undefined destination for WWTP sludge, no regional experience, institutional uncertainties: rules & roles of involved institutions not known or not defined
- **Cost coverage:** not given, based on increased operational costs (WWTP), political limitations (elections), low collection rate (payment behavior)

3. Approach: Which methods, tools or instruments have been developed and were applied to address the challenge?

1. **Customer connections:** Reduction of connection costs (participation in excavation & filling), extending payment period, PR campaigns, support from Municipal inspectorate
2. **Personnel Restructuring Plan:** Elaboration of efficient staff organisation structure, adjustment and creation of job descriptions, training needs assessment, development of implementation plan
3. **Sludge issues:** Elaboration of sludge concept (best technical/financial criteria), involving relevant Ministries/Institutions at national & cantonal level, experience and knowledge exchange
4. **Cost coverage:** Calculation of full cost-covering tariff, development of possible tariff options , consideration of social affordability, improved collection efforts and customer services

4. Outputs: Which were the concrete tangible results, outcomes and/or impacts of the good practice and how do they ensure sustainability of the practice?

1. **Customer connections:** reduction of connection fee increased connection rate, 370 new customer agreed, customer survey
2. **Personnel Restructuring Plan:** efficient organisation structure, employee reduction from > 154 to 140 (2018) and 120 (2022)
3. **Sludge issues:** Agricultur Institute promote sludge use in agriculture at cantonal level, implementing campaign and regional Eco fair
4. **Cost coverage:** agreed Tariff with cost-covering of all current operational costs, including depreciation of equipment

5. Lessons: What are the main lessons learnt in the course of implementation of the good practice?

1. **Customer connections:** implement one fixed connection fee for all customers, involvement of inspectorate, connection by their own, involvement of formal education and religion representatives
2. **Personnel Restructuring Plan:** participative workshops in local language with department heads, simplify and processoriented struture, distribute responsibilities,
3. **Sludge issues:** develop sludge concept during planning stages, reserve and provide funds for equipment and infrastructure for sludge management,
4. **Cost coverage:** Calculation of full cost-covering tariff, development of possible tariff options , consideration of social affordability, improved collection efforts and customer services

6. Follow up: Are there any open questions that need to be dealt with?

1. **Customer connections:** Survey and update with construction company to actualize customer data-base
2. **Personnel Restructuring Plan:** approval process at Municipality and ViK to implement middle term and long term organisational changes
3. **Sludge issues:** sludge analysis, to be in compliance with national regulation for agricultural use
4. **Cost coverage:** comprehensive approval process at Municipality and ViK Board for ratification of tariff increase