Water Supply and Sanitation at the Adriatic Coast
Vodacom is a joint service and coordination company for water and wastewater services for the Montenegrin Coast. Established on 29 March 2005.

- Government of Montenegro
- Municipality Tivat
- Municipality Kotor
- Municipality Bar
- Municipality Herceg Novi
- Municipality Ulcinj
Vodacom’s role

Agency for implementation of infrastructural projects in water and waste water sector on the Montenegrin Coast

Coordinator for raising organizational, technical and financial efficiency of the local water utilities
Agency for Project implementation

GOALS

Providing proper wastewater disposal system for the purpose of long term economic development and particularly aimed at tourism development

Rehabilitation of existing and construction of new water supply systems for the purpose of raising the quality of services local water utilities provide to citizens and businesses

Approximation with EU standards in the field of environmental protection
Municipalities

Phase I
2004 – 2005

Phase II
2006 – 2009

Phase III
2009 – 2012

Phase IV
2010 – 2013

Phase V
2013 – 2017

Water Supply and Sanitation at the Adriatic Coast
Goal: Water Supply Improvement

Value: €5,500,000.00

Investment sources:
Funds from the consortium of Montenegrin banks

Result: 166 l/s – additional amounts of water brought into the entire watersupply system in municipalities on the Montenegrin Coast

Phase I status: completed
### Phase II

**Value:** € 16,5 mil  
**Financial sources:**  
- KfW loan: € 10 mil  
- Municipalities: € 3,5 mil  
- KfW grant: € 2,5 mil  

**Goal:** Water Supply Improvement  

**Phase II status:** completed (2006-2009)

### Phase III

**Value:** € 82,6 mil  
**Financial sources:**  
- KfW loans and grants: € 56,6 mil  
- Municipalities: € 20,4 mil  
- GoM: € 5,6 mil  

**Goal:** Providing high quality wastewater disposal and treatment solutions for Herceg Novi, with minor investment envisaged for water supply improvement  

**Phase III status:** in progress

### Phase IV

**Value:** € 13 mil  
**Financial sources:**  
- KfW loan: € 13 mil  

**Goal:** Providing high quality treatment solution for Tivat and Kotor  

**Phase IV status:** in progress
PHASE II (2006 – 2009)

- Construction and reconstruction of water supply network of 14.9 km in length
- Value: Euro 3 mil
PHASE II (2012 – 2015)

- Construction and reconstruction of the main distribution pipeline of 10.2 km in length
- Construction and reconstruction of sewer main - 11.8 km
- Construction of secondary sewage network - 5.7 km
- Construction of pressure pipeline – 2.8 km
- Construction of sea outfall - 1.2 km
- Construction of 13 pumping stations
- Construction of WWTP for 65.300 PE
- Value: Euro 29,7 mil (water and wastewater)
PHASE II (2007 – 2009)
• Construction of sewer main - 5.2km
• Construction of secondary network - 6.5 km
• Construction of 2 pumping station and pressure pipeline
• Value: Euro 7.3 mil
**PHASE II (2007 – 2009)**
- Construction of sewer main - 5.2 km
- Construction of secondary network – 6.5 km
- Construction of 2 pumping stations and a pressure pipeline
- Value: Euro 7.3 mil

**PHASE IIIa (2009 – 2011)**
- Construction of 19.9 km of sewage network
- Construction of 2 pumping stations
- Value: Euro 6 mil
PHASE II (2007 – 2009)
- Construction of sewer main - 5.2 km
- Construction of secondary network – 6.5 km
- Construction of 2 pumping stations and pressure pipeline
- Value: Euro 7.3 mil

PHASE IIIa (2009 – 2011)
- Construction of 19.9 km of sewage network
- Construction of 2 pumping stations
- Value: Euro 6 mil

PHASE IIIb (2011 – 2014)
- Construction of 17.6 km sewage network and 14.5 km of water supply network
- 6 large and 6 small pumping stations
- Value: Euro 9.5 mil
**PHASE II (2007 – 2009)**
- Construction of sewer main – 5.2 km
- Construction of secondary network – 6.5 km
- Construction of 2 pumping stations and pressure pipeline
- Value: Euro 7.3 mil

**PHASE IIIa (2009 – 2011)**
- Construction of 19.9 km of sewage network
- Construction of 2 pumping stations
- Value: Euro 6 mil

**PHASE IIIb (2011 – 2014)**
- Construction of 17.6 sewerage and 14.5 km water network
- 6 large and 6 small pumping stations
- Value: Euro 9.5 mil

**PHASE IV (2014 – 2016)**
- Construction of joint WWTP for Kotor & Tivat, for 72,500 PE
- Review of the detailed design is in progress
- Envisaged beginning of works in late 2014
- Value: Euro 11.6 mil
PHASE II (2007 – 2009)

- Construction of transmission water supply pipeline - 6.6 km
- Construction of distribution pipeline – 5.1 km
- Rehabilitation of 500 house connections - Risan
- Supply of pumps and equipment for the PS Tabacina, Orahovac and Spila
- Value: Euro 1.3 mil
**Kotor**

**PHASE II (2011–2013)**
- Construction of water supply network 10.2 km
- Construction of distribution pipeline of 4.8 km
- Total amount of Phase II: Euro 6,8 mil

**PHASE III (2011-2013)**
- Construction of coastal sewer main – 5.3 km
- 3 pumping stations
- Construction of secondary sewage network – 8.1 km
- Construction of pressure pipelines – 1.7 km
- Construction of emergency outfalls of 300 m in length
- Reconstruction of the existing sewage system of 3.1 km in length and PS Stari Grad
- Construction of 7.4 km of water and sewage network and 2 PS – section - Muo-Prčanj-Stoliv

**PHASE III (2011 – 2013)**
- Construction of water supply network 10.2 km
- Construction of distribution pipeline of 4.8 km
- Total amount of Phase III: Euro 6,8 mil
PHASE II (2007 – 2009)

- Construction and reconstruction of water supply network of 8.8km in length
- Construction and reconstruction of sewage network downtown
- Value: Euro 4.8 mil
PHASE III (2014 – 2016)
• Construction and reconstruction of water supply network of 10.2km in length
  Sutomore + Bar Center

PHASE III (2014 – 2016)
• Construction and reconstruction of sewage network of 31.6km in length
  Sutomore + Bar Center
PHASE III (2014 – 2016)
• Construction and reconstruction of water supply network of 10.2km in length
  Sutomore + Bar Centar

PHASE III (2014 – 2016)
• Construction and reconstruction of sewage network of 31.6km
  Sutomore + Bar Center

PHASE III (2014 – 2016)
• Construction of WWTP for 68,600 PE

• Total value of Phase III: 30 mil
\textbf{Phase V}

\textbf{Value}: € 21 mil
\textbf{Financial sources:}
KfW loan: € 20 mil
KfW grant: € 1 mil

\textbf{Goal}: Water Supply and waste water improvement in Ulcinj

\textbf{Phase V status:}
\textit{In progress}

\begin{itemize}
  \item Institutional support consultant
    Commenced its work on 1 Sept. 2014
  \item Implementation Consultant - Tender - in progress
  \item Supply of water meters and installation Material - Tender - in progress
\end{itemize}
## Next phases

<table>
<thead>
<tr>
<th>Construction of sludge solar drying plants for WWTP Herceg Novi and Tivat/Kotor</th>
<th>Construction and rehabilitation of water supply and sewage network in Tivat, Kotor and Herceg Novi</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value cc:</strong> Euro € 3 mil</td>
<td><strong>Value cc:</strong> Euro 4,7 mil</td>
</tr>
<tr>
<td><strong>Status:</strong> Production of tender documentation for feasibility study</td>
<td><strong>Status:</strong> Tender preparation</td>
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</tbody>
</table>
**Investment projects outcome**

Improved cooperation of national and local authorities on solving infrastructural issues

Improved communication between local governments and their water utilities in planning and implementation of investment priorities

Improved level of appraising justification of investment activities in terms of technical needs, and their impact on the price of services – tariff setting

Broadened number of entities included in the Water Supply and Sanitation Project whereby awareness of their importance has been raised and information about them expanded

Attained a strong synergy effect of all Project stakeholders

Better quality of design documentation, works, equipment, construction and exploitation of facilities through implementation of FIDIC procedures

Positive effect on a planned development of networks in municipalities

Initiated procedure for standardizing equipment and material

Progress in defining regional interest in water supply and sanitation sector

Provided assistance and support to water utilities to conduct tender procedure for international tenders
Institutional support to five water utilities on Coast

GOALS

Capacity development in organizational, technical, commercial and financial fields

Sustainability of water utilities
Outcome of the projects for capacity development of water utilities

Leak detection and loss reduction

Introduction of GIS and SCADA system, hydraulic modeling

Production and monitoring of mid term and annual business plans

Promoting commercialization along with gradual tariff reform with the aim to attain full coverage of costs

Standizing and harmonizing operation procedures

Monitoring and analysis of water production and consumption

Modernization of financial- accounting and commercial function

Innovation in hardware-software equipment

Marketing research and actions

Productive and constructive cooperation and information sharing among water utilities

Introduction of benchmarking for identifying and implementing best practical solutions for the VIKs

Mutual making of creative climate and platform for transparency

Better quality of communal water supply and sanitation services in the region to the satisfaction of beneficiaries, employees and local governments
Thank you for your attention

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