



## Terms of Reference for a contracted service

**1. Short name of the service requested:**

Biomass feasibility desk study

**2. General nature of the service to be provided by the Contractor:**

To provide a desk study investigating the feasibility of alternative and cost-efficient uses for late-cut biomass derived from the management of wet meadows for nature conservation purposes in Poland

**3. The Contractor reports to:**

OTOP Aquatic Warbler LIFE Project Manager

**4. Primary working relationship of the Contractor:**

OTOP Aquatic Warbler LIFE Project Manager

**5. Other working relationships of the Contractor:**

OTOP AW LIFE Chief Technical Advisor

OTOP Conservation Director

AW LIFE site managers (8 persons)

**6. Period of contract:**

Start date: March 2008

End date: June/July 2008

**7. Level of remuneration:**

According to agreed offer, for orientation: c. 8,000 PLN  
paid out in instalments according to agreement

**8. Method of selecting contractor:**

Public call for offers, the best value proposal will be chosen

**9. Closure date for offers:**

5 March 2008



## 10. Application requirements:

All applications/offers have to be sent via e-mail to the address

[biuro@otop.org.pl](mailto:biuro@otop.org.pl)

(cc: to [michal.radziszewski@otop.org.pl](mailto:michal.radziszewski@otop.org.pl))

by 5 March 2008.

For questions please contact:

Ogólnopolskie Towarzystwo Ochrony Ptaków (OTOP)

Polish Society for the Protection of Birds

ul. Odrowąża 24

05-270 Marki k. Warszawy

Poland

tel: +48-22 761 82 05; fax: +48-22 761 90 51

Contact person: Michal Radziszewski

Every application needs to include as a minimum:

- list and short description of all elements included in the offer
- demonstration that the suggested elements are suitable to achieve the objectives of the service
- description of the relevant experience of the company/individual submitting the application
- names and CVs of the person suggested to lead on the provision of the service
- a budget for the implementation of the contract, with at least the following characteristics:
  - o the budget needs to include all taxes and fees to be paid by the Contractor
  - o the budget needs to include all costs incurred by the Contractor for the implementation of the contract
  - o showing a split between at least the following categories: personnel/expert fees, travel & subsistence, material costs
  - o showing how the budget for each of these categories has been calculated

## 11. Background:

OTOP-BirdLife Poland together with six additional partner organisations is implementing the EU LIFE Nature project with the title "Conserving Aquatic Warblers (*Acrocephalus paludicola*) in Poland and Germany". It aims to secure the survival of the critically threatened "Pomeranian" population of the Aquatic Warbler and to support a recovery of the Polish



core population of the species in the Biebrza Valley. The following is a short summary of the project:

*Acrocephalus paludicola* is the rarest, and the only globally threatened passerine bird (IUCN status “vulnerable”), found in mainland Europe, with a very small world population of only 12-20,500 pairs. Once widespread and numerous on fen mires and wet meadow, this habitat specialist has disappeared from most of its former key range in northern Germany and Poland due to habitat loss and degradation. With its habitats nowadays dependant on human land use, and being extremely susceptible to changes in traditional land use, it is now effectively a conservation dependent species with an acutely threatened and genetically distinct population along the German-Polish border (“Pomerania”) and a larger one in north-eastern Poland (“Biebrza region”). The project targets the breeding sites of 81% of the remaining Polish and German populations in the two named regions (c.2800 pairs), equalling 76% of the EU population.

**Objectives:** The project aims to stabilise the population of *Acrocephalus paludicola* in key areas of its range in Poland and Germany, by simultaneously improving and increasing the habitat at the main EU stronghold of the species (Biebrza) and preventing the extinction of the distinct remnant population in Pomerania.

An international partnership of organisations implements the project at 9 project sites to achieve the following key objectives:

- 1) Awareness of authorities, key stakeholders and the local public of the conservation needs of the species and its specific habitat requirements raised.
- 2) *Acrocephalus paludicola* habitat improved and enlarged in Pomerania and Biebrza.
- 3) Replicable financial and legal mechanisms for ensuring long-term sustainable management for *Acrocephalus paludicola* in Germany and Poland are identified and agreed upon, and funding secured.

**Actions and means involved:** [...] To secure the long-term legacy of the project an emphasis will be put on the development and testing of cost-effective management measures (like win-win agreements with local land users, burning) and alternative sources of income (thermo-energetic use of biomass, tourism). The project will also work to develop and promote specific policy and financial mechanism to benefit the species and its habitat, like specific agri-environmental schemes.

**Expected results:** Conservation of *Acrocephalus paludicola* will be understood, accepted and supported by all key stakeholders at regional, national and international levels. In the 9 project sites, management plans for all potential habitats of the species (42,000ha), will be set up. C.3000ha will be effectively managed, thereby improving c.1500ha of existing *Acrocephalus paludicola* habitat and recreating c.1500ha of new potential habitat in Pomerania and Biebrza. Within the managed area at Biebrza, the population is expected to increase by 15%, with >300ha newly occupied by *A. paludicola* by the end of the project. In Pomerania, the number of occupied breeding sites will rise from 6 to 7 by this time. Restoration and management practices and techniques will be used for best practice guidance for future work in sites in the same area and other areas in the EU and beyond.

Within the project, there are 9 project sites with a joint area of 42,000 ha. The sites are located in Western Pomerania (6 sites, plus 1 in neighbouring Germany), and in the Biebrza Valley (2 sites).

Regular late mowing of the fen mire and wet meadow habitat of the Aquatic Warbler is the most effective management method at these sites. During the project about 2,000 ha are being mown, and this management has to continue after the end of the project.

Key to a sustainable continuation of this mowing activity is to find a cost-effective use for the cut material beyond the declining traditional use as fodder or bedding for livestock.



The aim of the contracted study is to investigate the feasibility of alternative and cost-efficient uses for this late-cut biomass under consideration of the current level of technology available, distribution of biomass-facilities and the legal situation in Poland.

## 12. Information provided by OTOP

OTOP will provide the service provider with the following information at the beginning of the service period:

- general characteristic of the biomass obtained from the sites in question (botanical composition, calorific value, amount and distribution over the year)
- location and description of the project sites
- some relevant literature from Germany and the UK on this topic (additional literature will certainly be needed)
- initial list of alternative uses for biomass with listed advantages and disadvantages

## 13. Description of the service requested

### 13.1. Objectives

- feasibility study of alternative and cost-efficient uses for late-cut biomass derived from the management of wet meadows for nature conservation purposes in Poland prepared

### 13.2. Requested services

- Initial scoping meeting between the contractor and the contracting organisation to agree on the exact scope of the study (1/2 day).
- Preparation of a list of alternative treatment/uses for late-cut biomass, incl.:
  - o Composting on-site
  - o Composting off-site
  - o Use in a fermentation plant
  - o Use in existing local small-scale biomass burning facilities
  - o Use in own small-scale biomass burning facility (not yet existing)
  - o Use in large biomass burning facilities
  - o Addition of biomass to waste products from other processes (sewage treatment, distilling etc.)
  - o Burning biomass off-site



- Detailed discussion of the advantages and disadvantages of each of the above alternative uses of biomass under consideration of
  - o the relevant legal situation in Poland
  - o the currently available technology
  - o the availability of the required facilities in Poland
  - o their economical feasibility taking into account costs for one-off investments (like biomass press, pelleting machine, purchase and set-up of burning facility or composting facility) and ongoing costs (for transport, storage etc)
- Presentation of relevant case studies of existing facilities for the alternative use of late-cut biomass in Poland, amongst those at least
  - o 2 small-scale burning facilities
  - o 2 large scale-burning facilities
  - o 1 comparable composting facility
  - o 1 fermentation facility
- mid-term review meeting with the contracting organisation (1/2 day) in April 2008
- final review meeting with the contracting organisation (1/2 day) in June 2008, aiming at discussion of the findings and the draft of the final report.
- presentation of the results of the study during a workshop in Western Pomerania on 22-24 October 2008 (expenses for travel & subsistence for this workshop will be covered by the contracting organisation)

### **13.3. Expected Outputs**

- Mid-term report submitted one week before the mid-term review meeting, including:
  - o Progress of the study to date
  - o Presentation of preliminary results
  - o Potential modifications to the originally agreed scope of the study
- Final report submitted after the final review meeting by end of June 2008, including:
  - o list of relevant alternative treatment/uses for late-cut biomass
  - o report on the feasibility of each of the above alternative uses of biomass under current conditions in Poland
  - o Relevant case studies of existing facilities
  - o list of experts contacted and list of key literature
- Workshop presentation of the results of the study



#### **13.4. Methods**

- study of available literature
- contact to relevant experts
- contact to people running relevant facilities or projects

### **14. Experts Profile**

#### **14.1. Working languages**

The working languages of the contract implementation will be English or Polish.

#### **14.2. Experts**

The application should include at least the name and CV of the expert expected to lead on the implementation of the contract. Additional experts can be included if deemed feasible.

The leading expert should fulfil at least the following criteria:

##### ESSENTIAL:

- Higher education and graduation in the field of economics, engineering, agriculture, ecology, landscape planning or similar
- Familiarity and proven experience with alternative uses of biomass, e.g. as biofuel, in Poland
- Familiarity with the legal and financial regulations relevant for alternative uses of biomass
- fluency in oral and written Polish
- ability to read and understand English language documents
- computer literate (word, e-mail)

##### DESIRABLE:

- fluency in oral and written English

### **15. Reporting and dates for submission**

- Mid-term and final report as outlined in section 13.3. Exact dates to be agreed during the scoping meeting at the beginning
- Workshop presentation during 22-24 October 2008