

# Public Final Report

- projects Global Sustainable Biomass Fund and Sustainable Biomass Import -

## Sustainable Wood Pellets Import from Ukraine



## Colophon

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## **1. Context and reasons to start the project:**

### Why did we start the project:

Van den Nagel Bio-energie B.V. is interested in buying certified sustainable biomass for electricity production. Since the Netherlands have limited potential to produce biomass we are currently extending our interest to other countries like Ukraine. Ukraine has a big potential to deliver certified sustainable biomass for the Dutch market.

At first, the idea was to transport woodchips from Ukraine to the Netherlands. However, the sales price of woodchips is very low and therefore it appeared not profitable to import them to the Netherlands. Somewhat later we hit upon the idea that it might be better to produce pellets from saw dust and waste wood. Calculations showed that the end product would turn out to be more profitable. This is a win/win situation. Many saw mills in Ukraine throw away their waste (saw dust, branches and tops), because there is no market for it. We can produce pellets from this waste in the Netherlands, at the same time generating a market (income) for them.

## **2. Objectives of the project:**

### Our overall objective:

The overall object of the project has been: aiming to work towards sustainably produced wood pellets for electricity production in the Netherlands, for which it is essential that the pellets comply with (inter)national sustainability demands set up for biomass. The ideas has been to develop a concept that can be copied to other places in Ukraine to create significant flows of biomass that comply with (inter)national sustainability demands.

### Aim of the project:

This project has aimed to increase sustainability in the targeted production region in Ukraine, to support the development of a certified wood pellet production that complies with (inter)national import sustainability demands and to offer an opportunity by giving an economic incentive and environmental solution to a waste product in the wood industry. Focus has been on promoting the sustainability and certification of the biomass chain in question, and building and transferring new knowledge to Ukraine through this project. This offers a potential for many forested areas in Ukraine to which the concept could be copied to create significant flows of sustainable biomass.

The aim of the project changed during the project in these sense that the actual production of the pellets would take place in the Netherlands, for which certified biomass (waste wood and saw dust) would be imported from Ukraine.

### Project results:

Delivery of certified wood pellets produced in accordance with the sustainability demands imposed by the (inter)national market/governmental policies to increase the amount of available sustainable biomass in the Netherlands, has been the overall result aimed for. The basis for this result was vested in creating suitable production circumstances in Ukraine, where there is a lot of biomass potential for export but a lack of expertise and knowledge needed.

The project has delivered given the fact that the area of certified sustainable forest production in Ukraine will be increased. Thanks to the efforts of this project, a forest location in Ukraine will be FSC certified in 2013. The company to be certified was intending to deliver to Van den Nagel in the Netherlands, in order to enable Van den Nagel to produce sustainable wood pellets. Van den Nagel had leased equipment to make this happen. However, the last step in the project (the actual production of pellets) could not be taken due to the fact that external funders did not execute their promises to invest in the project.

### **3. Activities undertaken in the project:**

#### Activities undertaken in the project:

The activities that have been undertaken in this project can be retrieved in the table incorporated in section 4 below.

#### Description of project partners:

During the project, the activities were amended in response to changing circumstances. This meant that a range of project partners was involved throughout the project, depending on the phase the project was in. The general cooperation with project partners and subcontractors has worked out well.

The most important partners have been:

- Tebodin Netherlands: The role of Tebodin was especially important at the beginning of the project, helping to start up the project and giving advice on engineering parts of the project. Part of the actual engineering work was carried out by local engineers close to the foreseen production location in Ukraine.
- NEPCon: NEPCon is involved with FSC certification of the forestry in Ukraine targeted to be one of the suppliers in the project. NEPCon has played a significant role, being in the forefront – together with Van den Nagel's local representative in Ukraine (Gyevorg Gabrielyan) – to seek potential suppliers in Ukraine. Volin forestry was motivated to move towards FSC certification after a meeting with NEPCon and the local representative of Van den Nagel, and signed a contract to undertake necessary activities. It is expected that Volin will be FSC certified by the end of 2013.
- Mr Jos Dierkes: Jos Dierkes has been involved with the organization of the production and facilities in Ukraine. His services ceased halfway the project due to changed activities, leading to the pellet production being planned to take place in the Netherlands.
- CREM: CREM has been involved to keep an overview of the project activities, assisting Van den Nagel with project management, the steps to be taken in the certification procedure, project administration and communication with NL Agency.

Legal advisors, technical designers, local engineers as well as the manufacturer of the equipment leased (Kahl) were new parties introduced during the project period, with whom Van den Nagel has been working with to try to realize the execution of the project.

**4. Results of the project:**

The project results have been delivered split up in four sub-goals:

- (1) Organizing FSC certification for forests in Ukraine
- (2) Setting up the export of FSC certified saw dust and waste wood from Ukraine to the Netherlands
- (3) Setting up a pelleting process in the Netherlands
- (4) Disseminating lessons learnt and experiences amongst stakeholders

The results of the project, indicators for these results and achievements have been captured per sub-goal in the table below.

<b>Sub-goal 1: Organizing FSC certification for forests in Ukraine</b>		
<i>Results</i>	<i>Indicator</i>	<i>Achievements</i>
1. Identification of forests to be certified	Selection of potential suppliers, interested in becoming FSC certified and delivery to Van den Nagel.	<p>Many forestries and wood companies were visited by Van den Nagel and Gyevorg Gabriyelyan. In autumn 2012, NEPCon and Gyevorg Gabriyelyan further established contacts with and visited forest enterprises to identify those potentially interested in FSC certification and supplying to Van den Nagel.</p> <p>For this purpose, Gyevorg Gabriyelyan examined the registered forestries and the wood processing companies in Ukraine. Identified as a potential, he contacted the Head of the Regional Department of Volin State Forestries (this person manages the work of all 17 state forestries in Volin region). Their FSC certification had expired 10 years ago. In cooperation with Van den Nagel it was the intention to become certified again mid 2013.</p> <p>Meetings were planned and conducted with</p>

		<p>representatives of Volin. NEPCon focused on issues related to certification: explaining the procedures and requirements for becoming FSC certified, the possible market value of certification and common bottlenecks for forest entities in the country to fulfill all requirements.</p> <p>Gyevorg Gabrielyan supported the entire process to map potential suppliers and investigate options for securing supplies and was present during the visit with the forest enterprises (to get details about quantities, quality and price of supply).</p>
2. Entering into a certification service agreement	Signed service agreement.	<p>As a result of the visit of NEPCon and Gyevorg Gabrielyan, NEPCon has concluded a certification service agreement with Volin forestry late 2012. The contract signed documents the commitment of the forest enterprise to undertake the activities needed for FSC certification and specifies what services NEPCon will undertake to end up being able to recommend a FSC certificate. The role of Van den Nagel in the certification process was supposed to be the supporter of trainings to encourage the training process and to conclude a purchase agreement with Volin.</p>
3. Pre-assessment and training	Short inventory on current practice and accompanying training results.	<p>NEPCon has undertaken a short inventory with Volin to identify conformity and gaps in the management of the forest and pelleting and traceability for the production site. A training program has been set up. The most relevant trainings have been given.</p>
4. Field assessment	Report reflecting results and recommendations based on the field assessment.	<p>Documents and field sites of Volin have been reviewed, and staff and employees have been interviewed. With the help of Van den Nagel, it was targeted to be audited by June 2013, but this has been delayed. An audit has now taken place in September 2013.</p>
5. Chain of Custody assessment	Report reflecting results and recommendations based on the Chain of Custody assessment.	<p>The intention is for the FSC certificate to account for the entire chain (production, transport, trader). This has been discussed with Volin. For certification, this means that the procedures and documents requested for sites related to production, storage, and</p>

		transportation are reviewed and compared to the activities planned in regard to Chain of Custody requirements.
6. Stakeholder consultation	Report reflecting results from stakeholder consultation and conclusions in connection therewith	As part of the certification process, stakeholders of Volin will be notified about its intentions to become FSC certified and consulted for comments and input in accordance with standard procedures accompanying a FSC certification
7. Reporting	Overall report on findings	A report on Volin is to be prepared shortly based on the findings from the field assessment, stakeholder comments, and comments made by the forest owner and employees. In accordance with the FSC system, this report will be reviewed by an independent expert, and goes through a formalized internal quality check. The final report will be submitted for approval to the relevant FSC accredited certification body. This report is in the process of being prepared, but not finished yet. Certification is expected shortly.
8. Certification	Certificate granted.	Normal procedure is that the final report will be evaluated by the certification body. A positive result will lead to the FSC certificate to be issued. However, since the final report is only in the process of being drawn up, the certificate has not yet been granted.
<b>Sub-goal 2: Setting up the export of FSC certified saw dust and waste wood from Ukraine to the Netherlands</b>		
<i>Results</i>	<i>Indicator</i>	<i>Achievements</i>
1. Purchase of certified saw dust and waste wood to be organized	Signed agreement on supply.	Gyevorg Gabrielyan has spoken with the Head of the Regional Department of Volin State Forestries (this person manages the work of all 17 state forestries in Volin region) to buy sawdust. The Dobryanka state forestry promised to sell 20,000m3 to Van den Nagel.
2. Transport means being organized	Overview of the different possible routes.	Regarding transport, Van den Nagel spoke with DB Schenker, P&O Ferrymasters, For Maersk benelux B.V. There are two options for transporting; per train or ship. The best option for Van den Nagel was transporting by train.
3. Transport contract	Agreement(s) concluded	Once the transport route has been

partners agreed upon	for one or more shipments.	stipulated and the supply would have been ready for shipment, Van den Nagel would have contracted parties to carry out the transport. However, this has not been achieved within the project.
<b>Sub-goal 3: Setting up a pelleting process in the Netherlands</b>		
<i>Results</i>	<i>Indicator</i>	<i>Achievements</i>
1. Organizing a production location	Agreement for the location	As a result of several appointments made, Van den Nagel had found a suitable production location in the Netherlands. However, due to the delay in the project, the rent was terminated. This means that a new location would need to be found in case the pelleting production will still take place, which will not be a problem given the current oversupply of potential production locations at the market.
2. Installing the pelleting equipment	Pelleting equipment being installed.	Kahl would install the pelleting unit once the production location would have been organized. Due to the lack of funding, this has not been realized.
3. Testing of the pelleting equipment	Testing records.	The drying of the waste wood and sawdust has been tested; the production of the pellets not.
<b>Sub-goal 4: Disseminating lessons learnt and experiences amongst stakeholders</b>		
<i>Results</i>	<i>Indicator</i>	<i>Achievements</i>
1. Stakeholders in the Netherlands being informed	Report on seminars participated in and list of participants.	Van den Nagel and CREM have actively promoted the project with stakeholders in the Netherlands and also in Ukraine.
2. Publications being organized	Evidence of 5 articles placed.	CREM has published an article about the project on its website. Van den Nagel awaited publication on project experiences in the hope that there were positive results to be shared soon. This has not been the case.

## 5. Lessons learned:

In terms of working in the Ukraine: the bureaucracy procedures on pre-engineering, engineering stages, passing State Complex Expertise, and receiving the authorization to build and commission the construction have taken up much more time and efforts than planned. A very difficult aspect of working in Ukraine is the calculation of the time needed for all mentioned procedures. This is impossible to predict. Moreover, for a next project, Van den Nagel would not buy a production location without access to electricity and without proper buildings, as was the case this time in Ukraine.



In addition, one has to deal in Ukraine with corruption and unreliability of companies and other organizations in Ukraine, which make it impossible to set up agreements or arrangements.

In overall terms, it proved very difficult to obtain external financing for project activities. As parties led Van den Nagel believe that funding would not be a problem, he continued investing himself. For a next project, Van den Nagel would first secure sufficient funding before entering into commitments (this time, for example, he entered into commitments like the lease of the equipment, without having the certainty of the equipment being installed and producing output).

## **6. Follow up of the project:**

### The progress on scaling up, following-up and replication of the project:

The composition of the project activities changed during the execution of the project. The mobile unit concept that was supposed to be implemented during the project was no longer used.

Although Van den Nagel Bio-energie B.V. was to start at a smaller scale, the opportunities for scaling up were positive given the proportions of the project land in Ukraine, the supply of waste wood and sawdust in the region in Ukraine where the production location was vested, and the kind of equipment leased. In spite of the fact that it was decided to move the production of the pellets to the Netherlands, Van den Nagel still believed that there were good opportunities for up-scaling after the project. Otherwise, Van den Nagel would not have continued investing money in the project. However, since the planned activities could not be carried out due to a lack of third party financing possibilities, ideas on scaling up, following-up and replication are not truly a priority at this stage.