

Profit promotes Scottish forestry

National Trust does it small

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Next generation at the family farm

Thanks to Logosol our sawmill is very rarely defeated

easy process. It can take a lot of time to research and evaluate the differ-

Today we have easy access to more information than ever before. Whereas ten years ago we would have collected product leaflets from the various manufacturers, we can now go online and read full specifications, look at detailed photographs and watch the machine in action on YouTube

Logosol is at the forefront of this internet revolution and our website is the result of years of work by webmaster Robert and his assistant Daniel. It is constantly being improved and updated, and Lars has full time project to make a video of every machine.

But there can be such a thing as information overload and sometimes there is no substitute for a trip to the dealer's show-

hoosing a new machine is not an room for hands on contact with the machine and a frank discussion with a knowledgeable operator.

> **LOGOSOL HAS A SHOWROOM** with a difference. Its no coincidence that our address is The Sawmill, Abbey St Bathans - this is a working sawmill in the Scottish Borders, which has found innovative ways of adding value to timber from local woodlands.

> The association with Logosol started over 10 years with the PH260 planer/ moulder and now nearly every Logosol machine has found a place within our production systems and can be seen in a proper working environment doing the job for which it was designed.

> If you were to drop in on us in the next couple of months, you would find Peter, our bandsaw and planer expert, milling large oak and douglas fir logs into beams

with our new LM Pro bandsaw, or planing ash and sycamore into floor boards and larch into cladding.

We are accumulating some extra large logs, too big for the bandsaw, so you might well find Thom, our chainsaw mill expert, using the Big Mill kit to reduce them into more manageable sections.

Every day is different here. There is little in the way of routine work - the timber we bring in and the orders our customers give us are too varied for that. But thanks to Logosol we are very rarely defeated!

DON'T BE PUT OFF by the size of our business. The Logosol approach is viable at a far smaller scale. Our machines can pay for themselves in just a few hours per month, such is the value they can add to unprocessed timber. It is no problem to compete with the modern timber industry. Think

of the thousands of miles a piece of timber typically must travel to reach your door from some some faraway forest in Canada or Siberia. Think of the chain of merchants who handle it on its way to you, marking up the price at each stage.

THE LOGOSOL APPROACH marks a return to a simpler and more traditional way of doing things much more in balance with nature and the environment than the modern industrial way. The beautiful buildings of the past were made with local materials, and when we need timber to restore them we should source it from local woodlands whenever possible. And if you want your new buildings to take on a local character in harmony with the surrounding landscape, then again use local timber. And best of all mill it yourself!

WILLIAM DOBIE



Woodworking Project

Editor: Janne Näsström Special thanks to all Logosol friends who help us make Fresh Cut better! Fresh Cut is printed in 4000 copies. Updated news can be found at www.logosol.co.uk For editorial material: Please contact Janne Näsström email: janne@nasstrom.se

LOGOSOL

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Logosol - Innovative wood processing products

Dependability

Logosol offers longterm reliability, no matter where in the world you live. Doing business with Logosol is safe. You get extensive warranties, the right price, unlimited support, and products that keep their high value.



You become proud and happy when creating by working with wood. Standing in the sun sawing or planing; feeling the scent of sawdust; processing a log into something lasting; building that sauna, terrace or house you have dreamt of - what an amazing feeling!



Fellowship

As a member of Team Logosol, you are part of a fellowship. We belong to a large group of people that share dreams of working with wood. You have access to experience, tips and ideas through our customer magazine Fresh Cut and our website, but also through personal contact with members round the world.



Profitability

You can for a small investment start to process your own timber. No matter whether you are processing timber for personal use or for running a business, this is a profitable occupation. You have the opportunity to make use of all kinds of wood, and create exactly what you have dreamt of.

www.logosol.co.uk

The new bandsaw mill

Logosol's bandsaw mill, LM Pro, now has a competent, and extremely good value for money, little brother.

It is called Logosol LumberLite ML26 and is available with a petrol-driven or electric motor.

Big brother LM Pro and its predecessor LM40 have become the leading bandsaw mill of their class on the market. The reason is high capacity, a large number of accessories and the option of sawing really thick logs.

However, not everyone needs to be able to saw the thickest tree in the forest. But still prefers using a bandsaw. If only this sawmill was not so expensive ...

There is now a bandsaw mill available at the right price. The Logosol Norwood LumberLite handles logs with a diameter of up to 65 cm and uses the same type of sawblade as the LM Pro. The sawable length is 4.9 m and the guide rail can be extended in steps of 1.2 metres.

LumberLite has a lot to take care of, with precise height adjustment of the sawing unit that sits on an easily rollable carriage. The sawing result is just as good as with the larger LM Pro.

What has been left out, in comparison with the larger model?

"The selection of accessories is limited. For example, the LumberLite does not have an automatic feed," explains Logosol's product manager Mattias Byström.

The Logosol LumberLite is available with a petrol-driven or electric motor, with motor sizes between 4 to 8 kW.

Fits log house moulder and Logosol LM410 log moulder.



Third generation feeding

One of the finishing touches on the new bandsaw mill, the Logosol Norwood LM Pro MX34 is the smart feeding unit. It is not only that you can control the sawing from one location, the unit also removes the newly sawn timber.

There were previously two types of feeding unit for log bandsaws. The simpler variant is an auxiliary motor that is controlled from the saw unit. The saw operator walks with the saw unit. This is how feeding worked with the old LM40, with the addition of an automatic return.

On the more advanced models, the saw unit can be driven, raised and lowered from the operator's station. The saw unit is run forwards and backwards until the logs or blocks have been cut. Some also have a log return. These are complicated, and therefore expensive, designs

When we were developing the LM Pro,

the issue of smarter feeding that also helps lift the timber was raised. The solution proved to be simpler than anyone could have imagined.

This is how the new feeder for the Logosol LM Pro works: The saw unit is controlled from the operator's station at the end of the sawmill. When the log has been sawn, two solid flaps automatically drop behind the band. When the saw unit is backed up, the plank or board is carried with it. While the flaps protect the sawblade.

The saw operator receives the timber, to lay it on rollers. It is also possible to construct some form of table which the timber is pushed on to. The height of the saw unit can then be adjusted in one quick action and it is then time for the next cut.

The automatic feed was demonstrated at Logosol's DIY trade fair at the beginning of October. Several hundred visitors were able to see, with their own eyes, that the unit is smooth and does a better job than both of the previous models.



Logosol's designer Jonas Höglund demonstrates the new feeder for the LM Pro bandsaw mill. Inserted image: Flaps that drop behind the sawblade.

Rough sawn surfaces in a class of their own

What is the advantage of using a Logosol sawmill compared to other types of sawmill? A sawing surface to surpass all others.

Almost two years ago, Logosol's product manager and his family bought a wooden cabin. The cabin had been used as a ceramics workshop. The timber frame was fine, but otherwise the cabin needed a complete renovation to convert it to a summer cottage.

All interior and exterior timber, panels and load-bearing beams, were sawn using a Logosol sawmill. All except for one board, which was sawn using a bandsaw. The interior walls consist of three-sided planed timber with the rough sawn side facing outwards.

"The band sawn board is different from the others," says Mattias showing it.

All the timber from the Logosol sawmill has an almost planed surface. No raised grains, just a smooth surface.

The band sawn board looks hairy close up. The fibres have lifted and will probably lift even further when the wall is painted white

"We need to sandpaper this board down before painting it," notes Mattias.



"The Logosol sawmill gives a much smoother surface than other types of sawmill," comments Mattias Byström, during renovation of his summer cottage.

Why does the Logosol sawmill give such a noticeably improved surface than a bandsaw, and much more so than a circular saw? Mattias answers:

"I think that it is because the sawblade has a blunter cutting angle. The chain, is quite simply sharper.

The chain cuts off the fibres, while the sawblade, with its blunter cutting angle,

seems to lift the fibres slightly before they are cut off, which can give a hairy surface.

As most users have experienced, the fibres are even more obvious when painted. This problem can be avoided by sawing with a chain. This is an observation made in a lot of customer feedback to Logosol: If you want timber with the best surface, choose a Logosol sawmill.





Hairy band sawn board, surrounded by smooth chain sawn boards.

National Trust Goes



"For smaller clearances, it isn't worth hiring a subcontractor. It's better to do the felling and processing yourself," says Mike Annis (left), shown here together with his colleague Matthew Tomkins next to the estate's Logosol saw.

After the Crown, the National Trust is the biggest forest owner in the UK.

The aim of the Trust is to preserve places of historical interest and natural beauty.

One of the tools it uses to do this is a Logosol saw.

The Trust was formed in 1895 following an Act of Parliament. Today, it is an independent organisation that manages properties throughout England, Wales and Northern Ireland.

One of the properties managed by the Trust, and which is open to the general public, is Dudmaston Estate near Bridgnorth in Shropshire. One of the features of the Estate is its 250 hectares of well-maintained forest.

SAWMILL SINCE 1910

Dudmaston was donated to the Trust in 1978 by Lady Labouchere.

"Her grandfather was an enlightened landowner who had a big interest in forests. He planted new species and the estate now has everything from oaks to redwoods," says Mike Annis, Head of Forest Management.

One of the parts of the estate that is particularly popular with its 45,000 visitors a year is a woodland area called "The Dingle". It looks as though it was shaped

by a landscape architect to be like a mythical forest. Every tree has been positioned with the greatest of care and a stream flows along the valley floor.

"The wooden bridge is made from timber harvested on the estate, which we finished using our Logosol," says Annis.

The first sawmill came to Dudmaston in 1910, and the tradition continues to live on in the same place. For the past five years, work has been carried out using a Logosol M5, which until recently had a Stihl MS660 as its drive source.

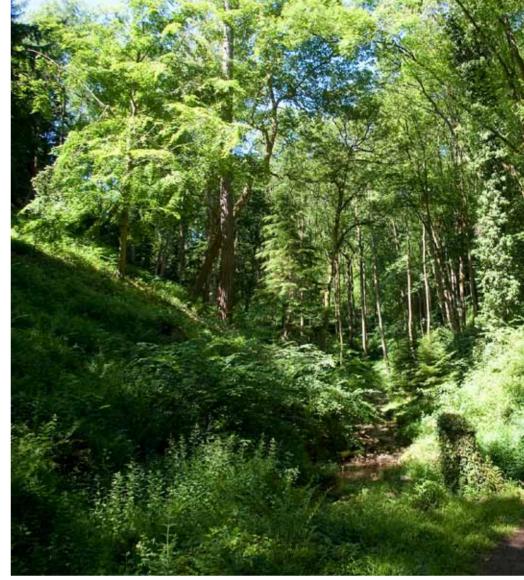
E5000 MORE EFFICIENT

"We've upgraded the sawmill by introducing an E5000 electric saw. This increases capacity and reduces our environmental impact," says Annis.

Fresh Cut was on hand when the new saw was brought online. Matthew Tomkins, Deputy Estate Forest Manager, cut the first section and then immediately passed the following verdict:

"It runs more smoothly and faster than the chainsaw, and will increase our capacity."

A higher capacity will be needed. Until now, the Logosol saw has been used to produce timber for fencing and posts, gates and bridges, but now there is also a need for dried timber for interior joinery and the like. Because of this, the National Trust has also invested in a Sauno wood kiln and kiln box from Logosol. When we visited, the kiln had been installed but hadn't yet



The Dingle is part of the estate forest where trees have been planted with great care. The bridge is produced with the Logosol sawmill.

been put into operation.

"Our forest is in considerable need of being cleared and thinned out. It gives us access to raw materials that can be processed both for our own needs and for those of other properties owned by the Trust," says Annis.

PLANS FOR OWN PRODUCTS

Plans are also in place to produce smaller products such as garden furniture, bird tables and cutting boards for sale to the general public.

"We have access to sales channels through the National Trust's own shops," says Annis, who sees this as more than just a way of generating revenue for the Trust.

"It's also a way of spreading knowledge about English forests and showing that forests can be used in an environmentally correct and sustainable manner."

There are considerable gaps in people's

knowledge in this area, particularly in the big cities, where felling is associated with ravaging and consumers choose materials other than wood in order to preserve nature. A few years ago, the following slogan appeared on the carrier bags of a particular British chain store: "Save a tree, use PVC".

In defence of this ignorance, it can be said that the UK has been a clear-felled area since time immemorial. Despite an extensive programme of replanting, forest only covers 13% of the country's total area. But it is fully possible to substantially increase this proportion by practicing sustainable forestry of the type an enlightened landowner created at Dudmaston Estate towards the end of the 19th century, and where Logosol is now used to harvest the fruits of this approach.

You can read more about the National Trust and Dudmaston Estate at www.nationaltrust.org.uk.



The first test run of the E5000 showed that the upgrade produced a more efficient sawmill,



Log table designed on the estate - a smart and foldable solution.



New larch posts that form the foundation of the main entrance were produced using a Logosol saw.



The entrance to the newly-built visitor car park has been produced using timber grown on the estate.



... as has the fence around the car park.

Small Global cooperation

Logosol has entered a global sales agreement with Toolbox. a subcontractor for many years. "The cooperation means that, together with Logosol, we can invest more in product development," says Toolbox MD, **Martin Lindqvist.**

The immediate effect for Logosol's customers is a significant widening of the range. The companies have cooperated since the mid-1990s, but this related only to cutters and knives for planing machines and moulders.

'We hope to get involved earlier in the development of new machines and contribute our knowledge of woodworking," says Martin.

UNIQUE PRODUCTS

Toolbox's core competence is planing knives. In addition to knives, the company has an effective range of sawblades and shank end mills for fixed tools and dovetailing units. In addition, Toolbox has its own unique product, Safesaw System which changes the angle grinder to a multi-sided tool for woodworking.

Toolbox is focusing on Logosol's plan-

ers and joinery machines. This can be seen in the company's own joinery workshop, where new tools are tested in operation.

The machinery is the four-sided planer PH260, the format saw PS315 and the vertical milling machine, MF30.

SHANK END MILLS

"There is nothing else like the MF30, and it has inspired us to create new tools,' says Martin.

He shows a completely new set of moulders for producing windows in insulating glass. By changing one knife and one counteracting knife, the appearance of the profile is changed. Using a special knife, you can create unique windows as a reasonable cost.

Shank end mills have been a weak area for Logosol. The global sales agreement allows Logosol to offer possibly the widest range on the market.

The manufacturer is CMT and any type of shank end mill not in this range is probably very difficult to get hold of.

A REAL LIFT

In addition, the agreement means that Logosol can offer high-quality products under our own brand. The name is LOG21 and covers value for money tools for all types of woodwork.



Logosol deepens its cooperation with Toolbox and takes over exports. Martin Lindqvist shows a new 120 mm high sidecutter for Logosol's four-sided

Logosol's CEO Malte Frisk has great hopes for the cooperation:

"This is a lift for our customers and a real step forward in our work to become a comprehensive supplier with unique products for small-scale woodworking".

HSS, hard metal or groove knives

When you purchase knives from Logosol for your planing machine or Logosol PH360, but also fits the PH260. moulder, you will get the added benefit of easier installation.

"All knives have the same base, which means that you don't have to change the setting when changing knife," says Martin Lindqvist at Logosol's supplier.

Toolbox has produced knives for Logosol ever since the first three-sided planer was launched almost 15 years ago. The company has changed owner along the way, but still retains a leading knowledge on knives and other tools used for wood-

There is a little bit of a specialist language concerning tools for woodwork, for example HSS, groove knives and hard metal. What is what, and what is good for what? Martin Lindqvist helps to sort out the terms.

DIFFERENT TYPES OF KNIFE

• Tool (high carbon) steel or carbon steel Often used in industrial planers and to grind profiles. The knife wears relatively quickly, but is easy to sharpen. Starts out sharper than other types of knife, but the sharpness is lost quickly.

• HSS, also called high speed steel. The name relates to an alloy that maintains sharpness for longer. The hardness makes it more difficult to grind profiles with good results. Therefore, Logosol's moulding knife is produced using a method called Electrical Discharge Monitoring (EDM).

• Hard metal. An alloy of several metals including tungsten carbide and cobalt as the main ingredients. Extremely hard, but also extremely brittle. Stays sharp for longer, but is difficult to sharpen. The brittleness means that the knife can break if you drop it, or run into a tough branch.

BETTER THAN THE INDUSTRY

"Logosol's standard knife is produced using HSS and is also available in hard metal," says Martin.

At the same time he shatters the widely held understanding that big industry uses different, better knives. The same steel is used for both.

If there is any difference it is that the small-scale planers are of better quality,

to avoid having to sharpen them so often.

For softer woods such as spruce and pine, HSS is the best alternative. Hard metal is an option for planing and processing large quantities of harder woods, mainly oak in Sweden.

The next mystery is the TB90 and groove knives. TB means Toolbox and is the most common type of cutter for planers and moulders.

THE SAME EVERY TIME

The knife is held in place with pins and a wedge. This means that the knife ends up in exactly the right place every time. Since Toolbox uses the same base for all knives, the knife can be changed without having to change the machine settings.

The TB90 cutter has now gained a bigger cousin, the TB92. This is 120 mm high and handles knives of up to 130 mm. This has been developed for the new

Knives for the TB90 cutter are available in two thicknesses, 4 and 5.5 millimetres. The thicker knife allows a four millimetre greater protrusion, 25 mm instead of 21.

Bigger protrusions require thicker knives and a different type of cutter. Here, the knife is held in place using grooves, hence the name groove knife.

The thickest groove cutter knife from Toolbox is eight millimetres. The delicacy using the same base however, is lost.

All Logosol knives are produced individually, both standard and special, using EDM. Very basically, the knife is cut using electricity and high temperatures.

Production is fully automatic and starts by loading a CAD-direction on one of the four computer-controlled machines.

"The quality is exactly the same for standard knives and special knives," says

30 per cent of knives are specially produced according to the customer's specifications. All CAS-directions are saved. If the customer orders any more knives, these will be exactly the same as the old ones.



Maria Linder checks some knives after EDM. The entire process is extremely precise and fully computer controlled.

Wyn takes over the farm

thanks to a sawmill and the Logosol PH260 planer

The stunningly beautiful Blaen Cwm Farm lies in a valley at the heart of the Snowdonia National Park in north-west Wales.

"Our family has lived on the farm since the 17th century," says Arwyn Jones.

But it looked as though he was going to be the last to do so.

In the past, the farm's main source of income came from sheep breeding. However, relying on this single stream of revenue is no longer financially viable for such a small farm. Arwyn realised this 20 years ago. He bought a mobile band sawmill, followed a couple of years later by a timber drying kiln.

"It was an eleventh hour thing. Then came BSE and foot and mouth disease. We managed financially thanks to the sawmill," he says.

From the outset, he drove around the local farms and did some contract sawing. But the aim was to move the business home and start to sell products from the farm's forest. This became possible thanks to the purchase of a Logosol PH260 four-sided planer.

TAKING OVER THE FARM

The planing machine also had another effect. Arwyn's son Wyn had left the farm to study. Most people of his generation never move back and farms start to disappear from families.

"Our family has probably lived on the farm for 600 years and I'll certainly take it on if there's potential for income and development," says Wyn.

He saw the opportunities through the sawmill and planing machine.

"People have to eat and have a roof over their heads. With businesses in both areas, it should be possible to drive the farm forwards," he says.

When Fresh Cut visited, he still lived in his flat in the nearby village of Llanuwchllyn, but it was just a matter of a few weeks before he was to move home again.

"We're building a house for my parents so that I can take over the old house that was built in 1777," says Wyn.

TV PROGRAMME ABOUT THE HOUSE

The new house is a big, fully modern building that is constructed in a way that is unusual in Wales. From the outside, it looks like a traditional stone house. This was one of the planning conditions set down by the local authority that had to be met in order for approval to be given.

What's unusual about it is that the stone and plaster conceals a timber frame. This is a common building method in other parts of the world, but is so revolutionary here that the Welsh-language TV channel produced an extended report about the building.

Timber frame buildings are advocated by authorities, for environmental reasons and to lower energy consumption by way of better insulation. This house represents the future of homes in Wales.

"The house will also be a showroom for products produced on the farm. All win-



The family has lived at Blaen Cwm Farm since at least the 17th century. Wyn Jones is now taking over from his father Arwyn, who foresaw what was coming and invested in a sawmill 20 years ago.

dows, mouldings, panels and joinery are made from oak grown on the farm, and we will have flooring from three different species of tree, all taken from the local area," says Wyn.

PERSONALITY AND CHARACTER

When asked if his father will let visitors into his new home, Arwyn goes quiet for a moment, looks quizzically at his son and then says:

"I promise not to lock the door."

Oak, beech, ash and larch are the main types of tree grown on the farm. They are suitable for house building and interior joinery, particularly flooring. Special flooring made from poor oak with knots and patterns sells particularly well and has been supplied to customers as far afield as London.

"People want floors with personality and character," says Wyn whilst he sets the farm's PH260 to plane some skirting board for the showroom.

Thanks to a forward-looking investment in timber processing, Blaen Cwm will continue to remain in the Jones family.



The stone and plaster cladding conceal a timber frame. This is so unusual that the local TV station produced a report about the construction.





Stairs and windows made from oak grown on the farm.

Profits used to promote forestry in Scotland

Maggie and Jim Birley started their sawmill more or less by chance. They bought the site of a redundant coal mine in order to build a house.

The result was Scottish Wood, a growing company with nine employees.



The old coal mine, a restored open cast workings, is situated just outside Oakley, north-west of the Scottish capital Edinburgh.

The couple bought the land to build a home and, because 25 hectare of forest were included in the deal, they invested in a sawmill for their own personal use.

"The idea was that it would be a one man band with a trainee," says Maggie, whose educational background lies in physics.

Jim, meanwhile, has a background in forestry, and work on the house soon evolved into a project with the aim of changing the entire face of Scottish arboriculture. For many centuries, the UK has been one massive clear-felled area and the forest that has remained has, quite undeservedly, earned a bad reputation.

STARTED A TRUST

Instead of using the indigenous forest, a high volume of timber is imported from around the world, including Sweden.

"Scotland lacks the knowledge of how to use and process forest materials," says Iim.

That's not completely true. An extensive programme of replanting is underway and there are a handful of pulp factories, but the focus is primarily on coniferous forest planted for conversion into paper pulp. Felling and replanting of traditional deciduous tree varieties such has oak and beech, for use in construction and joinery, has only occurred to a very limited extent. But this is something Maggie and John Birley are well on the way to changing.

The method they use is reminiscent of the work undertaken in Sweden by the Swedish Forest Society a century ago. Working in conjunction with like-minded groups and individuals, they started Dynamic Woods, the trust which owns the sawmill, and established the Association of Scottish Hardwood Sawmillers, which currently has a membership of over 30, all of whom are small-scale timber finishers.

"The trust uses the profits from the sawmill for various projects that promote sustainable forestry in Scotland," says Maggie.

CHANGE, NOT GROW

The trust lobbies on behalf of Scottish forests, particularly with the Forestry Commission, organises furniture joinery competitions in which Scottish raw materi-



als are used and is establishing forest-based training courses in Scotland. The trust has also produced its own forest certification standard - Scottish Working Woods.

The mark guarantees that the product comes from a sustainable forest in Scotland.

This work is now gradually starting to be rewarded with success. Scottish forests are no longer regarded as poor relations and consumers will become more and more positive once they see that this forest revolution is also creating new jobs.

For Maggie and Jim, the most important thing is to improve and raise the profile of forestry in Scotland. The sawmill that the couple started by chance has been a very important tool in this work, but its growth is not an end in itself.

"For many years now, we've been saying that we won't expand, but demand is increasing all the time and soon we won't have space to grow any further," says Jim.

FOUR-SIDED PLANER IS FANTASTIC

It's an impressive facility the couple have where others would normally have a garden. Behind the family house there is a business that has an ever expanding timber stock and timber drying operation. At the heart of the operation are two band sawmills and a four-sided planer/moulder - a Logosol PH260.

"The four-sided planer is a very good machine. We've had it for six years and it's used every day. Logosol is a name that means a lot to small-scale timber finishers. There aren't many other companies developing new technology for businesses of our size," says Jim.

More information about the Association of Scottish Hardwood Sawmillers can be found at www.ashs.co.uk. Scottish Wood also has its own website - www.scottishwood.co.uk.



The Queen of the Dragons

visited Sweden to learn how to build a sustainable Bhutan

The Kingdom of Bhutan is using Logosol sawmills to modernise the country and increase the gross national product of happiness. The Bhutanese Queen Mother visited Sweden at the end of October to learn more about ecological construction and small-scale work working.

Bhutan is one of the world's smallest and most enclosed countries with just under 700,000 inhabitants. Up until 2008 the country was an absolute monarchy, sandwiched between India and China in the eastern Himalayas.

The population are mainly smallholders and the country has barely any industry. The biggest resources are hydroelectric power and forestry, although these are only exploited to a modest degree.

HAPPINESS IS MOST IMPORTANT

In 1998 King Jigme Singye Wangchuck took the initiative to open up and democratise the country. He and Queen Ashi Dorji Wangmo Wangchuck abdicated in 2006, and were succeeded by their son Jigme Khesar Namgyal Wangchuck. The first democratic elections were held in 2008.

The former queen now bears the title Queen Mother and works towards modernising Bhutan through the Tarayana foundation.

The goal is not economic growth, but the greatest possible happiness. The country has therefore introduced the term "gross national happiness".

As a non-industrialised country, Bhutan has the opportunity to move directly to an ecologically sustainable society.

For example, no pesticides are used in farming. There is also a law that states at least 60 per cent of the country must be forested. The country's leaders do not want large-scale solutions that will destroy an untouched idyll.

HELP FROM SWEDEN

The Queen Mother and her foundation have turned to Sweden for help. Anders Nyquist is one of the country's most experienced architects in the field of ecological building. He has been working with Logosol for many years.

"Logosol's small scale solutions fit perfectly in Bhutan. There are barely any roads, but a lot of forest that is currently managed using traditional methods", he reports.

Anders and his wife Ingrid visited Bhutan a while ago to present their ideas. The country's top leaders became so interested that the Queen Mother immediately decided to study what Anders Nyquist had achieved in his home country.

She arrived at the end of October in order to visit the ecovillage of Rumpan, just south of Sundsvall, where Anders and Ingrid have realised their ideas on ecological building. She also visited Laggarberg school in



The sawing result was highly approved. Left to right: The Bhutanese Queen Mother, Anders Nyquist, Chime P Wangdi and Bengt-Olov Byström.

Timrå, one of the buildings in Sweden that is most adapted to the ecological cycle.

The Logosol sawmill was one of the highlights of the visit to the ecovillage. Logosol's founder Bengt-Olov Byström was on-site to demonstrate the sawmill that the Nyquists used for their own building work for many years.

The Queen Mother and her entourage of mainly women, were extremely interested. One of them, Chime P Wangdi, General Secretary for the Tarayana Foundation, asked if she could try out the sawmill.

SUITABLE FOR WOMEN

Unconcerned about the sawdust from the sawmill, she took her place, in her traditional dress, and cranked up the sawmill.

"This is perfect for Bhutan. The sawmill makes it possible for women to participate in the development of our country," was her reaction.

The Queen Mother asked Bengt-Olov Byström how the sawmill was used in different countries. He explained that in Africa and Russia forests are managed locally at low cost and with quick returns, which has created job opportunities and contributes the development of the society.

"Our country can afford this technology and our farmers can use it," the Queen Mother concluded.

The next step is to use the Logosol sawmill to build low-energy and earthquakeproof housing with a traditional appearance, instead of making the same mistake as others, of importing large-scale solutions using steel and concrete.

The goal is not to maximise growth, but to optimise gross national happiness.

The Bhutanese Queen Mother concluded her stay in Sweden by lunching with the Swedish King and Queen.

Facts: The land of dragons



Bhutan is a Buddhist monarchy. In the local language the country is called Druk Yul, which means "land of the dragons".

Area: A little over half the size of Scotland.

Population: 691,000

Capital: Thimphu, 90,000 inhabitants. Climate: Bhutan is located in the Himalayan mountain range. The climate is subtropical in the South and arctic in the North.

Economy: The majority work in smallscale agriculture and forestry. Forest: 65 per cent of the country's surface.

Form of government: Democracy since

Export: Limited, mainly electricity from hydroelectric power to India, but also raw materials such as food and limestone.



The Bhutanese Queen Mother, Ashi Dorji Wangmo Wangchuck, and architect Anders Nyquist.



"This technology will allow women to help develop our country," Chime P Wangdi observed after having tried the Logosol sawmill.