

# From detrimental to desks – How one factory is putting alien plants to good use



Debbie Besseling

***Invasive alien plants are a major threat to South Africa's biodiversity and the country's natural capital. The government's invasive alien plant clearing programme has achieved great success over the years, but what to do with all the plants and trees that are removed? The Heidelberg Eco-Furniture Factory is providing the answer by turning removed alien invasive plants into practical school desks while providing the local community with much needed jobs. Debbie Besseling paid them a visit.***

**A**ccording to the World Conservation Union, invasive alien species are the second most significant threat to biodiversity, after habitat loss. In their new ecosystems, invasive alien species become predators, competitors, hybridisers, and diseases of our native and domesticated plants and animals.

Close to 200 non-native plants have been declared 'invasive species' in South Africa. These invader plants have a substantial negative effect on ecosystem functioning and the capacity of ecosystems to deliver sustainable services. What is especially concerning is these plants' ability to affect South Africa's water resources, especially when they invade riverbanks.

In 1995, the government started the Working for Water (WfW) programme. The programme is aimed at removing intrusive alien plants which use much more water than our indigenous vegetation. In extreme cases, these alien plants outgrow our

indigenous plants to the point of wiping them out.

The programme operates in all nine provinces and is run by the Department of Environmental Affairs, which partners with other departments and private companies. The programme also contributes to job creation for local communities, which includes processing the plant material that has been harvested.

To date, the WfW programme has cleared invasive alien plants on over 2½ million hectares of land. Some of this wood can be used for value-added products, and for the production of energy.

The Eco-Furniture Factory project involves the harvesting of free standing invasive alien trees, such as the blue gum, poplar and pine species. These trees are used for the manufacturing of school desks, benches, and other pieces of furniture, as well as coffins. Currently, the project is targeting alien invasive trees that are within a 100 km radius of the factory, which incorporates the areas of Nigel, Heidelberg, and the Vaal Dam area, mainly on state-owned land.

Mill Manager, Boitumelo Rampeng, has worked at the factory since its inception in October 2012. She is responsible for the harvesting, wet mill and dry mill operations, which cover the entire manufacturing process.

Rampeng explains the various phases and the jobs created in each process: "The harvesting process involves the felling of free standing trees through chainsaw operations. This function provides jobs for chainsaw operators. The wet mill process involves the canting and planking of logs. This provides job opportunities

to work on different machines and items of equipment. Thereafter the planks are stacked in solar kilns for the drying process to take place. In the dry mill process, the actual manufacturing of the school desks is undertaken, which make use of numerous machines – laminating wheel, thicknessers, cross cuts and rip saws, sanding, finishing and spraying.”

In terms of securing orders that will ensure the sustainability of the production line, the Eco-Furniture Factory currently has an order from the Department of Basic Education (DBE) to deliver a total of 70 000 desks. Of this order, 22 800 desks have already been delivered to Mthatha in the Eastern Cape, and a further 24 500 to schools in the North West province. The remainder of the order is for schools in the Eastern Cape.

It is estimated that there is a shortage of some 6 million school desks in the South African educational system. This makes the desks manufactured by the factory in high demand. The high-quality, durable, steel-framed desks with wooden seats and tops manufactured by the Eco-Furniture Factory are offered at affordable and competitive prices.

## CHALLENGES

The factory has been operational since September 2013. Rampeng discusses some of the challenges of getting the factory operational and how it has expanded since its establishment. “When the order was received from the DBE, not all the required machines and manufacturing equipment were in place and therefore it placed some pressure on the production line. In order to ensure the end product of high quality desks, providing the necessary training to skill the workers, all of whom were previously unemployed and unskilled, was also challenging. In terms of administration, following the required procurement procedures can be a lengthy process.”

The Eco-Furniture Programme has addressed issues of unemployment and poverty in the local community with the employment of some 208 people, including management. Rampeng points out that the project also focuses on the development of small, medium & micro enterprises, and makes use of local suppliers and contractors.

## FUTURE PLANS

On discussing the future plans for the factory, Rampeng says that they aim to increase the factory’s production capacity to 4 000 desks per month, and to simultaneously increase

the number of jobs to a minimum of 250. There are also other opportunities in terms of the value added industry options.

Rampeng explains that eco-coffins are another area of focus at the Heidelberg Eco-Furniture factory. Several simple sizes and designs of eco-coffins have been created for this initiative. The coffins will be sold and distributed to non-government charity organisations and faith-based initiatives involved in social responsibility programmes.

The Eco-Furniture Programme is funded through Department of Environmental Affairs’ Natural Resource Management programme (NRMP), an Expanded Public Works Programme, and is in partnership with the Working for Water (WfW) programme. From 2014 the programme is partly funded by the Jobs Fund administered through the Development Bank of Southern Africa. Overall it is implemented through the South African National Parks.

Another similar factory is being established in Ga-Rankuwa. Rampeng will be joining the team at this site from 1 July 2014. With the expertise that she has acquired at the Heidelberg operation, she will make a significant contribution to the new venture. □

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*Top: One of the solar kilns at the factory.*

*Above: Part of the trunk of an alien tree being prepared for the manufacturing process.*

