SOCIO ECONOMIC IMPACT OF THE POTENTIAL BAN ON CHRYSOTILE FIBER ROOFING PRODUCTS IN SRI LANKA

RESEARCH INTELLIGENCE UNIT

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Executive Summary

Essentially the roof is the defining feature of any dwelling be it a residential, commercial or any other type of building. In this regard, any attempt to ban or restrict the most popular roofing material that Sri Lanka currently opts for will naturally have serious consequences in terms of the direct and indirect economic costs as well as the social and the environmental impacts that are more difficult to monetise but nevertheless have very serious consequences.

The rationale for engaging in any discussion on a ban on the use of Chrysotile in other countries has been based on arguments that are connected to the perceived negative health impacts of Chrysotile fiber. Whilst the scope of this report does not cover any investigation of health-related aspects, it is worth noting that to date there are no medical records or statistics showing harm from the import or manufacture of Chrysotile containing roofs despite more than sixty years of use in Sri Lanka.

This report begins by noting that in an international context, the countries that have banned Chrysotile are predominantly located in Europe and a few other parts of the industrialised world where the average GDP is almost ten times higher than Sri Lanka. Next, the report presents an analytical consideration of the direct costs of a potential ban based on several methods of calculation that use available government data from the Central Bank and the Department of Census and Statistics.

Based on the statistical model that we have developed; the following direct costs have been presented;

- Annual value of Chrysotile roofing material used in Sri Lanka is **LKR 21.5 billion** (**US$ 146.8 million**).
- Value of total stock of Chrysotile roofing inventory in Sri Lanka **LKR 395 billion** (**US$ 2.7 billion**).
- Value of existing capital investment: **LKR 8-16 billion** (**US$ 55-110 million**).
- New investment required to produce alternatives: **LKR 8-16 billion** (**US$ 55-110 million**).
- Loss of income and profits to the industry: **LKR 14.7 billion** (**US$100 million**).
- Loss of income earned by employees (direct and indirect): **LKR 17.9 billion** per annum (**US$ 122 million**).
- Loss to Customs and Inland Revenue: **LKR 858 million** (**US$ 5.9 million**).

Furthermore, indirect economic costs are multifarious and include both tangible and intangible impacts that are at times difficult to monetise. Nevertheless, this report has highlighted very important concerns that in a worst case scenario may prove to be disastrous for certain domestic sectors as well as the economy as a whole. A case in point is the impact that a potential ban on Chrysotile fiber imports may have on Sri Lanka's trade relations with Russia that are currently valued at over US$ 426 million with the balance of trade in Sri Lanka's favour. The Russian Ambassador to Sri Lanka has already publicly voiced concerns on the government proposals to ban Chrysotile whilst the Chairman of the Sri Lanka Tea Board has also stated to the RIU research team that the potential fall-out for the domestic tea industry could be significant. The tea industry contributes over US$ 1.5 billion to the national economy and provides employment to an estimated two million workers.

This report also presents the findings of our primary research on the impact of a ban on households, schools and hospitals in Sri Lanka.The findings from the household survey confirm that the impact will be somewhere between severe and damaging under scenarios where homes will not be able to replace their roofing sheets and cannot upgrade from iron sheets (*takaran*) because they can no longer afford a material that is a better alternative. It was also found that 25 per cent of hospitals have Chrysotile roofs with an additional 24 per cent having a mix of materials that include Chrysotile which would represent over **43,000 hospital beds**. Similarly, 22 per cent of schools had Chrysotile roofs whilst a further five per cent had a mix that included Chrysotile which represents **2,368 schools** and more than **one million children** across the island.

Finally, this report presents an evaluation of the potential environmental impact of a ban on Chrysotile by looking at the likely alternatives that will fill the gap in demand for roofing materials. According to our research, clay tiles are expected to be at the frontline of those products that will be considered by home owners and developers. However, any significant increase in the production of clay tiles is not likely to be sustainable given that large portions of earth need to be excavated for this purpose. This activity is known to have serious negative impacts on the environment, including **landslides**, a phenomenon that Sri Lanka is now experiencing at increasing frequency.

It has also been found that if the government starts to categorise Chrysotile roofing as a dangerous material, then it might follow that policies will be introduced for the safe removal and disposal of the same. Currently, there are no provisions made by the Central Environment Authority (CEA) for disposal of this material.In our research, we used the Australian model for removal and disposal and discounted the costs accordingly to represent much lower wage rates in Sri Lanka.Nevertheless, the cost of removal, transportation and disposal of all current inventory would cost the government an estimated **LKR 1,653 billion** (**US$ 11.25 billion**).

Essentially, this report has found that Chrysotile roofing is the **preferred choice of material in Sri Lanka**, especially for the low and mid-income groups who continue to upgrade from cheaper and less robust materials to one that is affordable and offers a huge improvement in comfort and overall material performance (thermal performance, water tightness, noise, durability, strength,

aesthetic appearance and availability). Consequently, a policy that seeks to ban this important material may find that it **contradicts the National Housing policy** which seeks to extend affordable and decent shelter to some 100,000 people each year. Moreover, rash policy decisions in the regard also threaten to open the door for potentially harmful negative economic impacts to the specific industries as well as the macro-economy.