

Slower Growth in 2022-23; Medium-term Trend Remains Promising

In January we forecast a “perfect storm of positive opportunity” in 2022 that would lead to stronger market growth in geosynthetics markets globally. The world was emerging from the Covid-19 pandemic and massive economic stimulus packages in Europe and North America, together with the need for more resilient infrastructure in the face of the effects of climate change, were set to support this forecast.

We were not alone in failing to foresee the invasion of Ukraine and its impact on the world economy. The IMF World Economic Outlook Update in July 2022 is entitled “Gloomy and More Uncertain”, and the growth forecasts in that Outlook are significantly lower than those made in January 2022; growth in 2022 is now forecast at 3.2% compared with 4.4% in January. The conflict has especially impacted food and energy prices worldwide, contributing to a strong increase in inflation. Energy prices, and even energy supply, are now major areas of uncertainty affecting the geosynthetics business, especially in Europe.

*Nevertheless, the comparison with 2021 is misleading; continuing growth is forecast and global growth is returning to its long-term trend rate after the short-term shock of the pandemic. Other, non-economic, drivers of the geosynthetics sector remain strongly positive. We consider that the current uncertainty will depress geosynthetics markets through the second quarter of 2023 but that recovery will begin thereafter. We reiterate - **2021 was not a false start!***

Market Forecast— Short-term Uncertainty, Long-term Recovery and Growth

The IMF forecasts continuing but slow growth in all regions through 2023. The biggest impact is expected in Europe and North America; 2023 growth of just 1.2% and 1.0% respectively. More recent economic data from the USA suggests that this may be over-pessimistic with both energy prices and inflation reducing slightly, but remaining high. Asia, Africa and the Middle East by contrast will have healthier growth, albeit less so than previously forecast.



We expect that the post-Covid stimulus packages in Europe and North America will begin to take effect during 2023. These are serious sums of funding: \$310 billion for infrastructure alone in the USA through 2026 and in Europe the EU's Recovery & Resilience Fund is worth €672.5 billion (\$673.5 billion) through 2027. Much of this, and potentially some additional funding, will be allocated to energy resilience as nations seek to reduce their dependence on unreliable international partners. LNG terminals and pipelines, stronger electricity grid connections between countries in Europe and between States in the USA, and increased investment in renewables will all stimulate infrastructure activity once the short-term crisis is over. But first we must survive in the short term!

There is no doubt that challenges remain: supply chain, energy and shipping costs, labour shortages and raw materials costs remain volatile and unpredictable and will require skilled and intelligent management. But we remain confident that the major macro-scale drivers of geosynthetics markets globally will remain strongly positive and will underpin not only recovery from Q3 of 2023 but also renewed strong growth. The pattern of growth, and of geosynthetics markets, will be different in the future. We discuss below one significant change that creates huge opportunities for this industry.

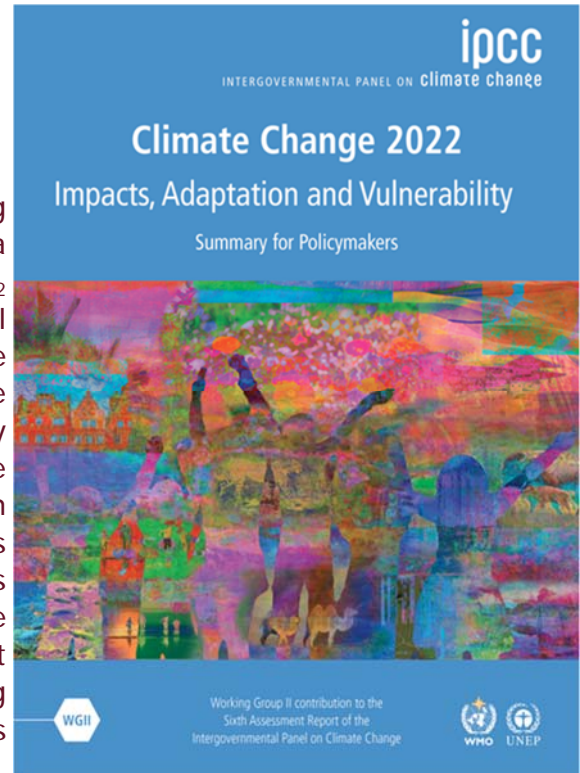
Adaptation to Climate Change

The IPCC Climate Change Report in 2022 for the first time refers to Impacts, Adaptation and Vulnerability. This is a realisation that we can neither stop nor reverse climate change and that it is already having a devastating effect on people and on essential sectors such as agriculture. Adaptation will require new, more robust and more sustainable infrastructure to cope with the impacts and reduce the vulnerability of the world, its people and its environment to those impacts. Moreover it is needed right now, not in 2035 or 2050. This will be a hugely important driver of civil engineering markets worldwide and creates an even bigger opportunity for geosynthetics, notably in water management and environmental protection.

Water management infrastructure has three purposes:

- ◇ To keep water out
- ◇ To take water away
- ◇ To capture and store water for use

Much of this infrastructure is constructed using concrete. If the cement & concrete industry were a country it would be the 3rd largest emitter of CO₂ after only China and the USA, accounting for 8% of all CO₂ emissions! So using concrete to mitigate the effects of climate change is the least sustainable approach imaginable. Replacement of concrete by geosynthetics in applications where this can be done is an enormous opportunity to achieve the adaptation necessary in a very sustainable manner. Case studies across civil and environmental engineering projects worldwide have shown CO₂ emission reductions in the range of 60-95% - these are not marginal gains but real contributions to reducing impacts while creating the necessary infrastructure. The geosynthetics industry must not fail to seize this great opportunity.



We consider that the emergence of this driver will result in significant change in the global and regional markets for geosynthetics. Water management and environmental protection will be strong sectors; transportation infrastructure will become less important in the mature economies of Europe and North America but will remain strong in other regions; and the increasing move away from fossil fuels will create opportunities in the mining sector, especially in lithium extraction and treatment.

CHALLENGES OR OPPORTUNITIES?

- * ***Adaptation to Climate Change*** - water management, both where there is too much and too little, will require resilient infrastructure using sustainable materials. Skilful strategic positioning to exploit this newly important market driver can lead to real and sustainable competitive advantage and profitability.
- * ***Plastics & Microplastics*** — geosynthetics are plastics and the industry must address the concerns, in particular over microplastics in the world's oceans. Focus on the benefits that geosynthetics provide in terms of sustainability, and not on a defensive position, is essential. Also credible, good quality research is needed.
- * ***Recycling***—currently the use of recycled raw materials in geosynthetics is woefully low. It is time to stop making excuses about Standards and reliability of supply etc. and to address those obstacles and increase the use of recycled polymer across the whole industry.