



# Resources - sustainable power for sustainable development

Nearly everything we make or build, and nearly all the energy we use, comes from out of the Earth. Modern society is increasingly dependent on mineral and energy sources. They are non-renewable, they differ in their availability, in the cost of production and in geographical distribution.

The last century saw the industry that finds and produces non-renewable resources evolve from being dominated by minerals to one increasingly concerned with oil and gas. This has made the resources industry a major player in influencing national economies in both developed and developing countries.

Modern society is increasingly dependent on dwindling mineral and energy resources



Azurite



Smithsonite



Smithsonite



Some of the more than 200 mineral species described from the world-famous Tsumeb copper-lead mine (now defunct) are found nowhere else in the world



Diopside



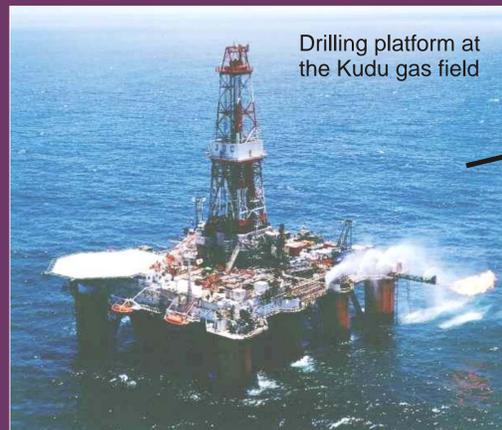
Vanadinite



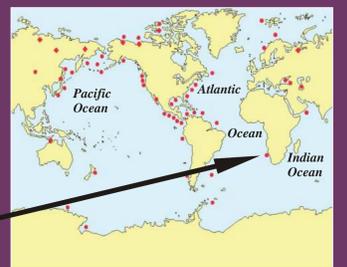
Uranium mineralization (carnotite) at Langer Heinrich Mountain in the Namib Desert (left)



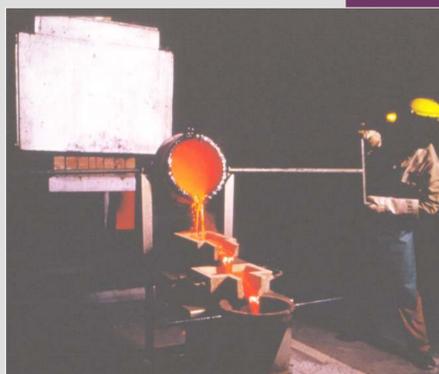
Metallurgical processing of copper ore (Otjihashe Mine)



Drilling platform at the Kudu gas field



Known and inferred occurrences of gas hydrate: Namibia's Kudu gas field could become a major contributor to the country's energy supply

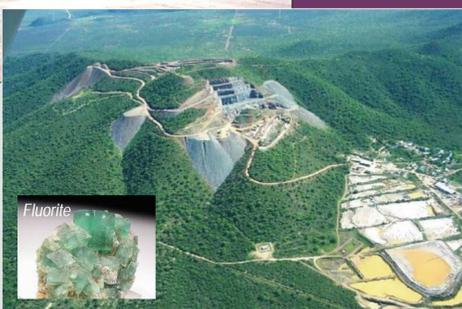


Navachab Gold Mine: after the gold has been leached from the ore (3 g/t) the molten metal is formed into gold bars

Although hydrocarbon exploration has been taking place in Namibia for more than a decade, and with the planned development of the Kudu gas field off the southern Namibian coast is looking towards its first major success, the country's economy still relies greatly upon its conventional minerals resources. Among these alluvial diamonds, largely of gem quality, play the most important role, but there is also a host of other commodities like base and precious metals, semi-precious stones, industrial minerals and dimension stone, some of which have been discovered and exploited by the indigenous population long before colonial times. Records of commercial exploration and mining date back more than a 100 years and cover a significant part of Namibia's economic and social history. During recent years the industry has experienced another upswing, and exploration for mineral resources is being actively carried out by local and foreign companies, thereby creating work and reducing poverty. The increased demand for uranium as an energy source over the last couple of years has encouraged intense exploration in this field and already led to the development of a new open cast mine in the Namib Desert.

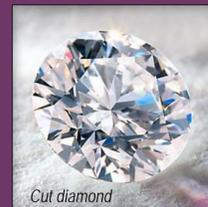


Salt is won by solar evaporation of sea-water along the coast (photograph: Panther Beacon Salt Pan near Swakopmund)



Fluorite

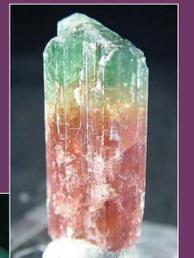
Okorusu Fluorite Mine near Otjiwarongo



Cut diamond



Raw diamonds

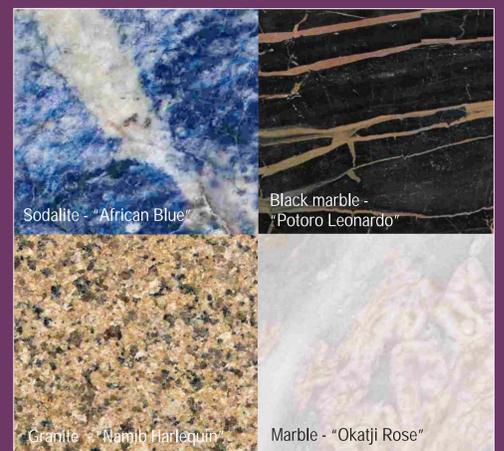


Tourmaline

Namibian gems: diamonds are the most valuable asset of the country's mineral industry, but Namibia is also well-known for its wide range of semi-precious stones, like tourmaline and amethyst



Amethyst



Sodalite - "African Blue"

Black marble - "Potoro Leonardo"

Granite - "Namib Harlequin"

Marble - "Okatji Rose"

Namibia also boasts a remarkable variety of dimension stones whose subtle and unique colours are well sought after on international markets