

Iran's Emissions Management



Iran's car market is experiencing a period of sustained, rapid growth. Global Emissions Management examines the market, and looks at the environmental impact and the implications for emissions control in the country.

Iran, and Tehran in particular, has an air quality problem that is the result of its climate, geography and the increasing number of cars on the roads. Tehran is situated in a bowl, surrounded by mountains that trap pollution and cause the government to frequently issue warnings to residents to stay indoors. The majority of vehicles on the streets were made to standards existing in 1970s Europe, and there is now a real need for emissions management systems to be fitted to new cars.

Iran's automotive market is in a sustained growth period. With a young population (55% of the population of 70 million is aged 24 or younger), there is strong demand for mobility, and the level of car ownership will increase. The undeveloped public transport sector and the low cost of fuel are also major influences on the market, and have led to a high degree of dependency on the car.

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import tariff imposed in 1993, and local production is encouraged by incentives for companies to both manufacture locally and to use a large amount of local content. Light vehicle assembly in Iran was estimated at 767,000 in 2004, an increase of 139% over the number produced just three years earlier.

Two models make up nearly half of the total market. The Paykan 1600 comprises 16%, whilst the Kia Pride, the car that deposed the Paykan from top spot, accounts for 30% of all light vehicles made in Iran. For many years, until 2002, the Paykan was the most popular car in Iran. The Paykan was introduced to Iran in the 1960s, being assembled under licence from Hillman, the UK manufacturer. Although production of this iconic vehicle is being phased out by 2006, millions of them remain on the roads, generating exhaust fumes that

make the capital, Tehran, one of the most polluted cities in the world. The average age of cars in Iran is 17 years, with more than one third being over 20 years old.

Iran's auto makers

Some major structural changes have taken place in the car industry since the establishment of the first assembly facility in Iran in 1958. All domestic manufacturers were nationalised in 1979, and the state, although with a lesser stake in the key companies, still retains a high degree of influence today.

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Two manufacturers, Iran Khodro (IK) and Saipa, who share 90% of the market, dominate the automotive scene. The government, through the Industrial Development and Renovation

Organisation (IDRO), has shares of 45% and 96.5% respectively in these companies. IK, maker of the Paykan, is the major player, with 58% market share, although Saipa, with the licence to manufacture the best-selling Kia Pride, has increased its share from 24% to 32% over the last three years.

The Paykan was IK's first model, and has been manufactured continuously since 1967. Initially, cars were made using complete-knock-down (CKD) kits, with components being imported and assembled in Iran. In 1991, IK started to make some parts locally, and two years later set up SAPCO (Supplier of Automotive Parts Company) to co-ordinate its component manufacturing activities. IK now assembles the Paykan 1600 from parts almost entirely made in Iran, a statistic that is also true for other, more modern vehicles in the product range.

The Citroën Iran Company, the forerunner of Saipa, was established in 1966. As well as its links with Kia, Saipa still makes cars under licence from Citroën. The Xsara will shortly replace the Xantia, but these are small volume

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vehicles when compared with the Kia Pride. The Pride itself is being phased out, albeit over a longer period of time, to be replaced by the Rio. IK and Saipa will both be manufacturing Renault's low cost Logan in Iran from 2006 under the terms of Renault's joint venture with IDRO.

With its acquisition of Zamyad and Pars Khodro (bought in 1999 and 2000 respectively), Saipa's current share of the light vehicle market from all its marques becomes 40%. This leaves very little for the remaining manufacturers, although the outlook is expected to change somewhat over the next five years. The number three car maker, Kerman Khodro, a newcomer to the market just ten years ago, is expected to take a 10% share by 2009, through its links with Volkswagen (assembly of the Gol starts this year) and Tata, whose Indica is also being made under licence from 2005.

Foreign investment

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export as well as for the domestic market. Foreign companies are investing in Iranian partnerships for precisely this reason, and it is in fact written into agreements that they must export a certain percentage of their output.

Export markets are key to the ongoing growth of Iran's motor industry. The neighbouring countries in the Middle East, the Asian nations of the former Soviet Union, as well as north Africa, are likely to provide this growth. The Iranian government has recently set up a US\$1 billion fund to invest in joint ventures between domestic and foreign companies.

Legislation and standards

Local and national governments have recognised the environmental imperative of limiting vehicle exhaust emissions and have already implemented policies to bring the vehicle parc in line with other countries. Tehran's taxis have been converted to run on compressed natural gas (CNG), making the most of the country's natural gas reserves and since 2002, Iran's vehicles have been using unleaded rather than leaded fuel.

The switch to lead-free fuel has paved the way for the introduction of catalytic converters on new vehicles and under legislation effective from March 2004, this has started happening. This law has implemented the standards set out in Euro 2. Meanwhile, discussions are ongoing regarding introduction of Euro 3 standards by March 2006.

Johnson Matthey in Iran

Johnson Matthey is using advanced technology to enable compliance with existing Euro 2 legislation, and to ensure that the domestic manufacturers are ready for the next stage of legislation early next year. Early compliance with Euro 3 standards will also help with the development of export markets, as it will make more countries accessible to cars made in Iran.

Total light vehicle assembly in Iran

Figure 1: Market share as a percentage of total light vehicle assembly*

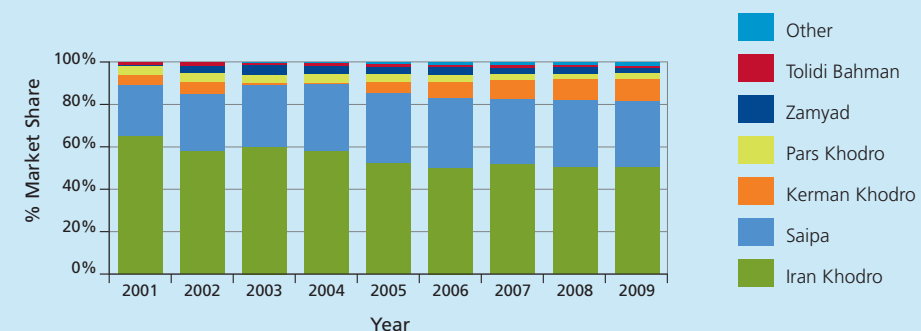
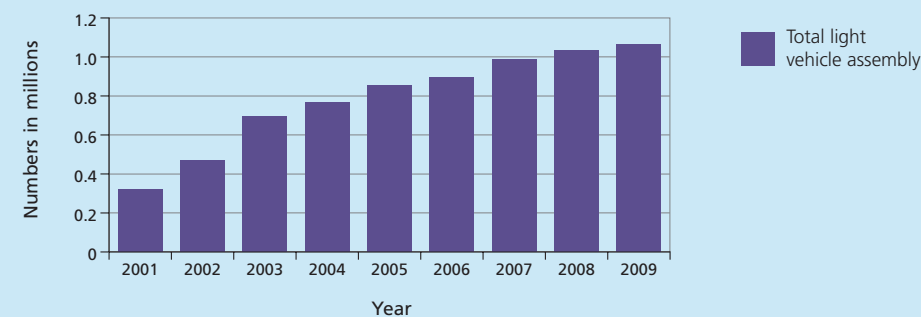


Figure 2: Total light vehicle assembly year on year*



* Source: J.D. Power-LMC Automotive Forecasting Services