

Green China

Sustainable Growth in East and West

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Golden Mountains and Black Holes: From Chinese Megatrends to a Radical New Management Agenda

What is the big picture of the rise of Green China? To answer this question, it is necessary to identify the megatrends in the Chinese society in order to have an idea in which direction it moves. But when dealing with China, there are always two sides of the coin. In Western eyes, they seem to be paradoxical, but coping with these several truths is a necessary ability when dealing with the future of China. Interpreting megatrends in a Chinese context is different from a Western context. The rise of China is accompanied with global investments in sustainability. The growth and development of China is driven and pushed forward by several groups within the Chinese society. The megatrends in China have far-reaching consequences for the West. Suddenly, several issues have to be solved at once by the Old and New World. The top management agenda for governments and corporate leaders is overloaded. A new world order is being created which will have a greater impact for the remainder of this century than the financial and debt crisis.

The sustainable future of China depends on solving the green paradox of China. On the one hand, the economic growth had tremendous detrimental ecological and social effects. Examples are CO₂ emissions and pollution of air and water. On the other hand, Chinese firms are worldwide front-runners in wind and solar energy. For the near future, this situation will not change very easily and not very quickly. The choice to open China and to choose the path of prosperity and wealth creation cannot be left very easily anymore. Large portions of the people of China have now experienced a better and wealthier life than previous generations. But even a larger portion of the population has not been levied in better and wealthier position. Economic growth has become a necessity to satisfy the needs and fulfill expectations of the large majority waiting for their share. It poses the Chinese leaders for the greatest challenge in recent history. Political lives and the legitimacy of Chinese government depend on synthesizing the paradox of economic growth

with ecological and social detrimental effects. The central government is aware of this and has taken policy measures to encounter the issue of sustainability and implementing Triple P performance criteria. On their turn, the actions to create a sustainable society by both Chinese government and business organizations put the West for an equal big challenge.

For the West, till now, China has been a part of their old world order in the form of the workshop of their value chains. By means of outsourcing, Western corporations, as market economics required, have used the Chinese cheap labor reservoir as an additional possibility to lower costs. From the perspective of strategic innovation, however, this short-term static strategy of cost savings now turns chances. There are two reasons the chances have turned. First, the buildup of the manufacturing base has created wealth and increased personal income levels of many Chinese households. The purchasing power increased. Slowly but steadily, a market for selling products has been developed. Second, the outsourcing enabled China to build up their manufacturing industry and to move on. The next step is to use the efficient manufacturing base to create sustainable products such as electrical cars, windmills, and solar panels. These two consequences of the dynamic market process pose the West for their own big challenges. One side of the coin is to earn money from the Chinese by selling products and services. It is the century-old Western dream of selling only one product to every Chinese, and the size of the population numbers makes you rich. The other side of the coin is that new Chinese rivals in old and new industries are becoming increasingly competitive. Therefore, in the near future, a complete new market situation will emerge. Because of the size and potential power of China, the reaction in the West boils down to two principal views. The first view only sees big opportunities and a huge new market ready to be taken by superior Western management. The second sees a big threat and is awaiting a tremendous tsunami of government-supported economic power crushing Western market-based organizations.

Or simply stated, China represents a golden mountain or a black hole. In the next sections, these two notions will be worked out in more detail. But to find out whether these extreme positions represent the real development in China, we use the method of megatrends to identify the big picture of the future of Green China.

2.1 Green Golden Mountains

The green golden mountains of China are the result of the size of China and its recent past and expected future development and growth. In the past decades, the focus was on economic growth and levying the Chinese people from poverty into the middle class. Annual GDP growth has been without exception around 8–12 %. In 2008, the nominal GDP per capita in China was just over \$3,000 and in the USA nearly \$47,000. So there is a long way to go. To a great extent, China's economic growth till now took place in coastal areas around megacities such as Shanghai, Shenzhen, and Guangzhou. The Go West strategy of central government tries to distribute wealth-generating regions throughout China. New large cities are planned.

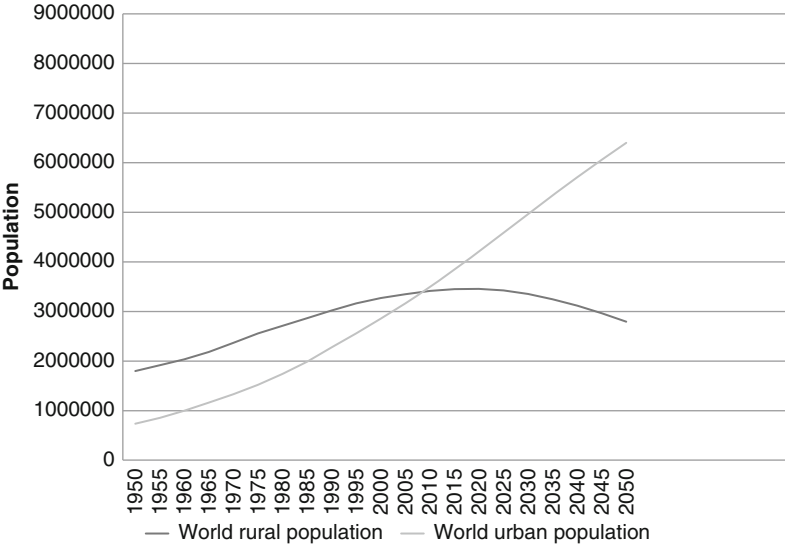


Fig. 2.1 World rural and urban population between 1950 and 2050. (Source: UN, The 2007 Revision)

The urbanization rate will definitely further increase. According to the UN in 2007, for the first time in human history, worldwide, more people lived in urban areas than in rural areas. Figure 2.1 shows this remarkable moment in human history.

Worldwide, the urbanization is expected to grow further. In developed countries, the urbanization rate is around 75 % (2005), and in China, the urbanization rate is 40 % (2005). China will probably reach the 75 % mark in 2050. In reality, this implies that hundreds of millions of people move from small towns to larger or mega cities. This growing urbanization is one of the megatrends which has consequences for many industries like mobility and transport, energy, water, agriculture, and services. Of course, many other (mega)trends like feminization and increasing complexity have an influence on the future of any society. For the purpose of Green China, in this chapter, only a few developments will be used to illustrate the possible golden green future of China.¹

2.1.1 Green Car Mountain Rally

Only recently the steep growth of the Chinese car market has started. Already now, the larger cities in China are heavily congested with accompanying pollution and

¹ Main sources for data are The China Greentech Report 2009 and China’s Policies and Actions for Addressing Climate Change, November 2011, Beijing, Information Office of the State Council The People’s Republic of China.

health problems. Measured in 2008, in the USA, there are 80 passenger cars for every 100 people; in Japan, this number is 45 and in China 4. The absolute number of cars is expected to increase from 50 million in 2008 to 300 million in 2030. Despite limitations of car registration, the rising income level together with the growing urbanization will definitely force the car industry to reinvent itself and put forward strategic innovations. The golden mountain is turning into a green golden mountain. The stricter pollution and fuel consumption regulations pave the way for sustainable car concepts. Chinese automotive industry heavily supported by Chinese government is preparing for new energy vehicles such as hybrid and electrical cars. For Western companies like Daimler and BMW, plug-in does not only mean plug-in hybrids but strategic alliances with Chinese companies. The plug-in is their entrance to Chinese New Vehicles Program. In the eyes of the automotive industry, China is a golden mountain. Chinese manufacturers such as BYD, Chery, Geely, and Foton jump on the bandwagon of the new vehicle program.

The electrification of mobility is not limited to cars. China has the biggest market for electrical bikes and scooters. In 2008, it is estimated that approximately 65 million scooters and bicycles were driving around China. China is by far the biggest market for scooters and bikes, and it accounts for 90 % of all world sales. Accordingly, also the production has risen sharply but is getting competition from outside of China as well.

2.1.2 Green Energy-lighted Mountain

The history of developed countries proves that energy consumption rises with GDP and income levels. China has huge coals reserves; measured along current consumption, the known Chinese coal mountains are big enough to supply energy use for the next 400 years. Coal still provides 70 % of China's energy supply. It is no surprise that in recent years, it is estimated that every week, a coal firing plant has been opened. Furthermore, partly due to increased use of cars, the dependency on oil is increasing. Chinese import of oil is half of its seven million barrels daily consumption. At the same time, Chinese government knows that because of CO₂ and environmental detrimental effects, coal and oil are unsustainable. For this reason and because of rapidly rising demand, additional and renewable energy resources are not an option but a necessity. In the next decade, an energy mix seems unavoidable. All the big oil companies come up with the scenario that in the long term, 2030 or even 2050, an energy mix is the only option. For example, BP in their Energy Outlook 2030 assumes a share of fossil fuels (coal, gas, and oil) of approximately 75 % and the nonfossil fuel (hydro, nuclear, and renewables) of 25 % in 2030. Moreover, the energy intensity per tonne of oil equivalent (toe) of GDP will reduce.

Great opportunities exist for renewable energy sources such as hydropower, wind, tidal waves, biomass and solar. Other energy sources are natural gas including shale gas and nuclear energy. It depends on your view whether nuclear is regarded to be sustainable or not. The nuclear waste cannot be denied and

remains a big issue, and after Fukushima, also safety is not under complete control. For the Chinese government, carbon capture and storage (CCS) is a very important technology in order to get grip on CO₂ emissions from coal, gas, and oil-firing plants. CCS is the Golden Gas Mountain and a road to low carbon economy. It offers a multibillion market. Western companies like French Alstom see golden CCS mining opportunities. In the last decade, Chinese firms in the wind and solar industry made a rocket start from scratch to world market leadership. In 2007, Chinese photovoltaic (PV) manufacturers had a worldwide market share of 30 %. The share of the total Chinese production of PV cells and PV modules for export is about 90 % whereas only 4 % is used for domestic consumption. The golden Sun Mountain attracted many Chinese entrepreneurs but also local governments trying to establish their own Golden Solar Valleys. Consequently, the production capacity could not match the demand and installation capacity. The overcapacity resulted in piles of PV solar cells. The solution was export, and around 95 % of total Chinese production is sold in world markets. Especially the German market with their long-term subsidies is an attractive market. Suntech Power Holdings, Yingli Green Energy Holdings, and Trina Solar belong to biggest manufacturers and are already active in the EU and the USA. With the new plans for renewable energy, large sums of central government are available to support and develop this industry. China plans to get 20 % of its energy demand from renewable resources in 2020. Hence, domestic demand for solar energy is stimulated. In the future also, Concentrated Solar Power (CSP) will contribute to the energy mix. But CSP is in China relatively in its infancy and far behind leading countries like Spain and the USA.

2.1.3 Golden Water Valleys

For any country, water is becoming more and more a pivotal resource. Water is not only necessary for human consumption but also for industrial use such as in food industry, power generation, and water-based paint shops in manufacturing. Access to water is as important as oil. China has several problems in the area of water supply and drinking water. Moreover, the South of China compared to the North possesses around 80 % of the water resources. According to the World Bank, between 2010 and 2050, the availability of water resources per capita in Northern and Southern China river basins will decline with 17 %. Droughts, disappearing forest, climate change, and intensified human use contributed to changing supply. Very important in this respect is the inefficient use of water for industrial purposes. For example, the agricultural sector consumes about two third of all water consumption. And on top of that, due to inefficiencies, only near half of the water is actually used for growing crops.

Besides water scarcity, China also has to cope with water pollution. It is estimated that approximately 70 % of all rivers are polluted to grade IV indicating that water is unsuitable for human use. The main cause is industrial activities without proper measures against pollution or failing sanitation. This holds from many industries alongside rivers such as agriculture, manufacturing, paper mills,

and chemical industry. Annually, about 50 million tons of wastewater is discharged in Chinese rivers, lakes, and other reservoirs.

China has formulated several policies to cope with the above-mentioned problems in the water sector. In November 2011, the government announced various plans such as National Comprehensive Plan for Water Resources, Seven Major River Basins' Flood Control Plan, National Mountain Torrent Disaster Prevention and Control Plan, National Plan to Guarantee the Safe Supply of Drinking Water to Urban Dwellers, and National Plan for the Eco-protection of Major Rivers and Lakes. New laws are issued such as Water and Soil Conservation Law. New policies are issued for the development, utilization, conservation, protection of water resources, erosion control, waterborne health diseases, and irrigation. One of the aims is to guarantee supply of safe drinking water to 210 million rural residents.

2.1.4 Golden Food

The paradox of food is that on the one hand, the Chinese are obsessive about food and on the other hand, food safety is sometimes a very big problem. On the long term, the Chinese demand for food exceeds the supply. Therefore, besides water, the Chinese agro-food sector offers a huge challenge. Agro-food products are another golden mountain. May a better description would be another Golden Himalaya is to be seen on the horizon.

The market for agricultural products in China has the dimension of a Golden Food Himalaya measured in absolute numbers as well as world market share. China has about half of the world market share in the production of the beloved vegetables and pork. Moreover, it is expected that demand increase in China (15–20 % per year) will surpass supply increase, and the gap between the two has to be filled in the future, especially around metropolitan cities like Shanghai. This gap is one of the driving forces for introducing innovative agro-food production concepts. One of the reasons why it is difficult to meet the demand is that the supply is limited by the natural conditions of China. Only 13 % of China's soil is suitable for agricultures (van Someren and Nijhof 2010).

These harsh conditions and the increasing gap require new solutions, and none will be excluded. Especially, the biotechnology sector has enormous opportunities to solve the gap between demand and supply. Additionally, also the existing organizations in the agro-food have to implement strategic innovations. However, Chinese SMEs account for 80 % of China's agricultural production. Bigger commercial multinational agro-food companies are rather the exception but a few have world-class size. For example, the Henan Shineway Group has an annual turnover of 1.6 billion euros in the pig industry and Delisi Group has an annual turnover of 362 million euros in the cattle industry. With regard to the position in the value chain, it is interesting to note that in China, only 30 % of the food is processed. Compared to agro-food champion the Netherlands where 80 % of the food is

processed, the Chinese share in food processing is rather bleak. But it represents a golden mountain.

In China's Policies and Actions for Addressing Climate Change (November 2011), the following policies and measures are announced: "China strives to consolidate farmland and water conservancy infrastructure, raise the overall production capacity of agriculture, encourage large-scale construction of standard farmland with stable yields despite drought or flood, support major irrigation areas to continue building supporting and big irrigation and drainage pump stations, expand the irrigation area, improve the irrigation efficiency and spread water-conservation technology, and carry out agricultural water pricing reform and pilot water-conservation renovations of farmland ditches, and enhance the nation's capacity to resist disasters. It has built and improved agricultural meteorological monitoring and early-warning systems. China also carries out research into and cultivates stress-resistant varieties of seeds with high yield potential and high quality and resistance to drought, water logging, high temperature, diseases and pests, and expands the growing areas of super strains of crops. It has further increased subsidies for superior strains of crops, and accelerated integration of the cultivation, reproduction and spreading of such superior strains. Currently, more than 95 percent of the farmland nationwide is sown with superior strains of major crops, which contributes 40 percent to the grain output increase" and "It has dispatched agricultural technical experts, trained agricultural technical personnel and improved Africa's ability to realize food security. It attaches importance to cooperation in human resource development, and has carried out 85 foreign aid training programs."

On paper, these policies are very promising, but they require an agro-food sector able to create the necessary innovative changes.

2.1.5 Market Value of the Golden Mountains

The several worldwide crises skyrocketed gold prices. Sustainability issues in China skyrocket the total worth of Green Gold market in China. It is estimated that already only relevant sustainable issues taken together in all industrial sectors represent a total market volume up to \$1 trillion per year. Which real businessman or businesswoman can resist such an opportunity of earning money and personally becoming rich and do something for the world? No one.

Europe has emulated the world by paying attention to environmental issues in an early stage. Governmental policies; strict regulations on, for example, air emissions, water pollution, and soil protection; NGOs, and pressure groups together with some innovative entrepreneurs ignited a market for sustainable products and services. Europe had a head start and the green mountains are in the eyes of many entrepreneur and manager really gold. The timing is now right to earn money from China, they think. And they act by traveling to China and try to get involved in the many projects. Some of them are successful. But for how long?

But China is not at a standstill. Even in some cases, China emulated Europe's top of the bill companies in the wind and solar sector. Therefore, it is time to ask oneself

whether the green mountains are really made of massive gold or whether it is a black hole.

2.2 The Chinese Black Holes and Twin Stars

Are there no green golden mountains, but are we attracted by a black hole? Every galaxy has one or more black holes. Compared to other nations, China itself is a galaxy, and there are many black holes. There are several factors which could die out the energy of any star in the galaxy. Four of them are manifest and substantial (van Someren and Someren-Wang 2011).

First, the housing bubble which already has brought construction companies, house owner, local government, banks, and stock trader into trouble. The decreasing prices for houses lead to meanwhile acknowledgeable financial problems.

Second, the number of bankruptcies in low-value industries like toys and clothing is increasing. The main general causes are rising labor costs, reduced demand, and less private loans. The chosen solutions like outsourcing outside of China and increased use of robotics are detrimental for Chinese labor creation and are part of upcoming social unrest.

Third, the fear for bad bank loans increases. Estimates which indicate that a quarter or even more of the bank loans will be irrecoverable are no exception anymore. Not only banks are to be blamed but also irresponsible loans and unlimited urge for expansion by local governments contribute to increased financial risk. Meanwhile, the Chinese government has taken measures with regard to bank reserves for banks.

Fourth, the Chinese government possesses a national currency reserve of more than 3,000 billion euro. But the Chinese government is now more prudent with spending and investing out of fear for a Chinese crisis needing substantial financial power for a forceful counterattack. Premier Wen has already announced that for prestigious projects such as the electrical car, no unlimited pots of money will be available.

Some of the black holes are disguised through interstellar nebula as golden mountains. Doing business in China is for many Western companies a challenge, even for those who have been involved in China for decades such as Volkswagen, Philips, or Siemens. New policies, new regulations, different interpretations of regulations in different time periods or in different regions, rapidly changing market conditions, new customer demand, and unexpected behavior from business partners make Chinese markets volatile, unpredictable, uncertain, and hard to make money in. There is no one single market but various markets which can differ per city, region, and province. They all need their specific attention of market needs, customer behavior, different regulations and governmental attitude, and decision making. Furthermore, also Chinese like golden mountains. Even worse, almost every Chinese is an entrepreneur, and they all want to have their own company. Even worse, every Chinese entrepreneur wants to have the greatest and biggest company of the world dominating anyone else. The last decades, the European

Commission and European national governments have desperately formulated different policies to stimulate entrepreneurship, without success. So for the West, the big challenge is as follows: How to fight 1.5 billion Green Dragons?

In all industries, the Chinese market is very dynamic, but the downside is that almost in every sector, overcapacity is the result. Not only the copycat behavior of many entrepreneurs is the cause but also the local governments who all want to have their own golden mountain. Overcapacity means low profit margins or even losses. The Chinese solution is manifold. From a Western perspective, two alternatives are relevant. The first solution by Chinese government is forced merger in an industry in order to reduce overcapacity and the opportunity to create power houses able to dominate world markets. These Green Dragons are used to fight foreign companies penetrating Chinese markets. The second solution is export supported by Chinese government. The case of PV solar panels and modules demonstrates this market behavior. For example, the overcapacity in wind energy sector intensifies competition, and a shakeout in the industry is unavoidable. Another aspect is the succession of new technologies which make older generations of technology obsolete. Illustrations of this effect are the first- and second-generation solar panels and led lamps.

In nearly every circumstance, Western organizations have to cooperate with Chinese organizations in order to be able to do some business. Central Chinese government has earmarked several industries as strategic such as banking and automotive industry. Western companies need not only a Chinese alliance partner, and they are only allowed to have a minority stake in the joint venture. Meanwhile, every Western manager knows what the purpose of these alliances is. For the Chinese, only one thing counts: the access to Western design methods, R&D, patents, technology, and managerial knowledge of branding, marketing, and distribution. For Western organizations, it is a trade-off between market access and technology transfer. Therefore, a China strategy with the adequate strategic innovations is necessary. The golden green mountains can indeed become black holes. The huge demand and opportunities represent an irresistible opportunity requiring a never-ending stream of investments in resources and time to build up your Chinese market organization. Each new involvement in Chinese market, such as establishing new factories and opening new regional markets, makes you believe to come a step closer to conquering Chinese markets. But with every new investment, you come closer to the black hole. There is a boundary between your Chinese organization and the black hole where you still decide to turn back and move in another direction. If you are too late, you pass the death zone and no return is possible.

The black hole for pollution generators is in some cases nearing the death zone, and in other cases, this border has already been passed. The production sector was attracted by favorable conditions to set up factories in China in the 1980s and 1990s of the last century. It is even the case in some underdeveloped regions in China now. Environmental regulations and the implementation were mild for those who could bring money and jobs. But they are no longer welcomed once a region is rich enough to realize the consequences of pollution. China wants to be more than the factory of the world (van Someren and van Someren-Wang 2009). Those who cannot see this trend and continue to produce in an unsustainable way will be forced

to close down or out of the market. There is a very big and powerful black hole for them. Examples are the creation of eco-cities and eco-economic zones, the environmental friendly paint market, the reorganization of the city heating, power plants, steel industry, leader industry, cloth industry, and toy industry which all will have sustainable characteristics.

In nonstrategic industries such as retail, most Western companies need a partner to get access to the distribution network. In this case, the problem is not to get or keep your majority stake but to increase your total market share for China as a whole. The cutthroat competition is really economically murderous. In these cases, business partners are not black holes but twin stars in which the Chinese star sucks the Western star to death. The stream of gases full of Western knowledge, patents, and experience is the lifeline of the growing Chinese star. Also here, the transfer can take months but also years. Again, at the end, the Chinese partner wants to be the winner, and they will do everything for that aim. Your Chinese business partner will show you great respect, offer you great unmatched hospitality, and honor you and your company, but the next day, the brother or nephew of your business partner imitates your company at the other side of the street. How can their respect and hospitality suddenly turn into your economic enemy? Because they regard themselves best; they want to become the number one, and in the eyes of Chinese, it is your own wrong strategy or naivety if you do not understand their behavior. It is you or me. Black holes are unforgiveable.

Chinese markets can be a continuous promise of profit and investments after investments are required to keep up with developments and opportunities. Sun Tze said, "Timing, positions and manpower harmony are the most important conditions to win a war." For Westerners, those are still important conditions to be successful in China. Firstly, you have to enter or leave China at the right time; retreat on time is considered the most important tactic in the Chinese 36 stratagems. If you come too near to the black hole, it will be too late to escape. Secondly, you have to stay alert of the national and regional policy development all the time and to decide your own position in the big picture of Green China. When you cannot stay ahead, you will have to find another direction. Thirdly, keeping harmony with your stakeholders is also important in China. Not only the shareholders or the market are important, the people in and around of the company are more important. Otherwise, in the long run, you will lose the status of part of twin stars and cannot fight the power of the black hole. Therefore, in case of a black hole, know how far you can go and choose the right timing to turn around. In case of the twin star, if you have to team like a twin star, be sure to be and stay the bigger one. True black holes and twin stars need strategic innovations and China strategy.

2.3 Megatrends

Worldwide megatrends give an indication in which direction the future world is developing. But there is no unequivocal approach to megatrends. In Table 2.1, a few different perspectives of megatrends are presented.

Table 2.1 Megatrends by different parties

	Copenhagen Institute for Future Studies	Frost and Sullivan	Laurence Smith	Dutch fire department
1	Aging	Urbanization	Demographics	Sustainability
2	Globalization	Social trends	Increasing use of earth's resources, services, and gene pool	From natural risk perception to total safety control
3	Technological development	Economy	Globalization	From hierarchy to networks
4	Biotechnology	Technology	Climate change	The individual in the center
5	Nanotechnology	Energy		From life time relations to more complex (labor) relations
6	Prosperity	E-mobility		Toward a new societal order
7	Individualization	Infrastructure		Faster technological development
8	Commercialization	Business		Emergence of contrasts in society
9	Health and environment	Health and wellness		Decreasing Western dominance
10	Acceleration	Smart factory		
11	Networking organization	Industry-specific trends		
12	Urbanization			

There is no absolute certainty about these trends, but some of them are really robust. Table 2.1 demonstrates the different approaches toward megatrends, a very condensed approach of four versus the summing up of more than ten megatrends. It also depends if a general approach is preferred applicable on every industry or an industry-specific approach. The latter requires the translation of general trends into industry-specific long-term developments including industry-specific trends. Therefore, it depends for which purpose the megatrends are used. General megatrends for the coming decades boil down to demographics, technology, new forms of organization and governance, sustainability, power shifts, and economic, social, and political changes.

It will be no surprise that megatrends are very important for formulating your corporate strategy. However, when creating strategic innovations, megatrends are only one of the many ingredients as will be explained in Chap. 5.

For now, the most important issue with regard to megatrends is as follows: What are we doing with these trends and what is corporate and policy response? It is remarkable how both corporate leaders and policy makers are aware of trends but do not react. For example, it is known for a long time that aging is characterizing several Western countries, but hardly any specific products or services are

developed. On the contrary, governmental services or cable services for connecting TV are increasingly managed by Internet only, for most elderly people a hocus pocus. Similar, managers in the automotive industry, despite feminization, cars are developed for the male segment and specific female requirements such as a simple dashboard with only the necessary control buttons instead of a full loaded dashboard are hard to find.

For the purpose of this book, we will focus on some major developments in China. The academic father of megatrends, John Naisbitt, coauthored with his wife Doris, published a study of megatrends specific for China. According to the Naisbitt and Naisbitt (2010), there are eight pillars of the future Chinese society: the emancipation of the mind, balancing top-down and bottom-up, framing the forest and letting the trees grow, crossing the river by feeling for stones, artistic and intellectual ferment, joining the world, freedom and fairness, and from Olympic gold medals to Nobel Prizes. Their core message is that China is developing a new social and economic model called vertical democracy. The main task of the vertical democracy is to balance bottom-up and top-down forces. The basis for the major change in China is liberalization from a Maoist ideological mindset toward a mixture of freedom and control. The latter released the entrepreneurial spirit in China. The continuity of Chinese leadership enabled to make long-term plans. The Naisbitt's go even a step further by stating that the continuity in Chinese leadership in fact enables a continuous reform process in big corporation style.

How to deal with the golden mountains, valleys, black holes, and twin stars? A simplification might be helpful to make our point about the necessary intermingling of different topics. We use the metaphor of the rainbow.

Green golden mountain resembles the maximum optimistic variant of greening of Chinese society coupled with earning maximum profits for Western firms. The black hole and twin star variants represent the maximum pessimistic variant in which only the Chinese earn money at maximum cost of Western firms. Both the black hole and green gold are not only imaginary possible future states without any sense of reality. On the contrary, both really exist in the Chinese universe and did already happen. In some cases of outsourcing, Western firms maximized their profits without transferring any knowledge or technology. The opposite also occurred; the main inventors of the Maglev train technology, Siemens and Thyssen Krupp, only commercialized one short track between Shanghai Pudong and Shanghai Airport. All technology and knowledge of this fast magnetic train technology is in the hands of the Chinese. Therefore, any situation can happen in future. For this reason, we use the metaphor of the rainbow from Chap. 1 and apply it on the megatrends. In the next section, the focus will be on the megatrends in China.

2.4 The Colorful Future of China

The general worldwide megatrends are valid for China as well. But as demonstrated in the previous chapter, China often shows two sides of the coin which appear paradoxical in Western eyes. The other side of the coin with regard to megatrends in

China is not only the existence of opposing trends but also another interpretation of and dealing with megatrends.

The core message is that the synthesis of the paradoxes will lead to other solutions and other directions of future development. Already here, we encounter the difference between Western and Chinese thinking and behaving when creating a sustainable future. The different context, institutions, behavior, decisions, and so on lead to different appliance of megatrends in creating strategic innovations.

The history of China shows that its development has always been characterized like moving back and forth between the opposites of paradoxes. For example, for the elderly generation, saving money was common use, but for the current younger generation, it is less important. But the current behavior does not mean the saving behavior has disappeared; it will come back in time.

In the past, China has had periods of opening and closing the country for foreign influences and contacts. It is hard to imagine that nowadays open China will be closed again. But it depends on the circumstances. It is like in contemporary Europe where the outbreak of wars between European countries seems to be impossible and something of the past. But the tensions around euro and debt crisis show that old sentiments between countries and dwindling solidarity regain power very quickly. China has its own problems such as the many minorities like in different parts of the country or rising income inequality or the increasing transparency due to new social media. When these kinds of development become more powerful, a less open China is not unimaginable.

The different and changing shades of the rainbow of megatrends culminate in a colorful future of China. The methodology of DESTEP (Demographic, Economic, Social, Technological, Ecological and Political) is used to categorize the major developments in China. Therefore, the China insight view gives often a different picture than the self-proclaimed Western trend watchers. Only a few examples are given and especially some deviations from worldwide and accepted China trends are discussed and highlighted. The purpose is to be aware of the China watchers and to train yourself in your own judgment and to get acquainted with the fact that the clocks in China often tick different.

2.4.1 Demographical Trends

Only a few major trends are mentioned here, but they all show the different long-term trends with regard to demographics.

With regard to demographics, the aging problem in China is one of the big issues for the near future. The one-child policy is the main cause of the aging problem in the near future of China. In the West, the USA has no aging problem due to immigration. In the EU, aging is a big issue because of low birth rates in relation to mortality rates. Moreover, the recent years in many member states of the EU, immigration from non-EU states is a hot issue. Immigration could partly solve the aging problem, but the political climate is not favoring these kind of solutions. As a result, European countries have to take other measures to be able to maintain living

standards and payment schemes to retired people. Most common is slightly raising the retirement age from 65 to around 67. In China, the aging problem will take another direction. For Chinese, it has always been normal to work your whole life, and the aging problem will be solved in this way. Chinese people will work longer or even lifetime to support their elderly family members. But for the one-child generation, the burden is higher than in previous generations. The family restructuring process, known as the 4-2-1 (one child, two parents, and four grandparents) problem, has the potential to undermine old family traditions, and new agreements on family life have to be sought.

Another Chinese megatrend is the power shifting between different age groups and classes caused by the shifting of the group size. For example, the green people, those are the young ones, who will be bearing the burden of the consequences of graying society and unsustainable economic behaviors, may grow into a more powerful group. They are able to react like this due to higher education levels and the demand for higher educated people. The gray ones, the elderly people, will become dark gray (young elderly) and work harder and longer to maintain their position. Lifetime work will not be an exception in order to be able to take care of income for family members and secure a pension. The blue-collar workers will become scarce and better paid compared to first generation. The white-collar workers have to survive by getting a well-paid job at one of the rising stars in public- or private-owned companies or in public services. However, because of global pressure, the number of jobs is not endless. Therefore, more white-collar workers will be forced to establish their own business to survive, which is a good development for the economic creativity. Some of them will become black horses. Black horses are self-made people with great wealth and often power. Black horses will complement red princes. The past decades, the so-called red princes, the party leaders, and often their close family members will not be replaced but at least complemented by black horses.

What about the feminization megatrend? Traditionally, and based on Confucius' hierarchical thinking, boys are preferred above girls. That does not mean Chinese women have no chances. On the contrary, again based on Confucianism, highly educated people are respected, and therefore, highly educated women are indeed respected. A part of the female population will take their chances and make career and get top jobs. But as soon as the group of upper middle class and top class in society becomes bigger, the necessity for women to work will reduce. As a result, the roles of housewife or just enjoying life and spending husband's money will for a part emerge. A mixture of housewives and top managers will exist.

The above-mentioned developments will have an impact on the ongoing urbanization. A mixture of different shades of people will characterize the major cities. They will have a demand for all kind of different services ranging from agriculture food products, mobility, health, financial planning, luxury goods, to housekeeping.

In conformity with global trends, the urbanization in China is an ongoing process for decades. Figure 2.2 clearly shows this megatrend.

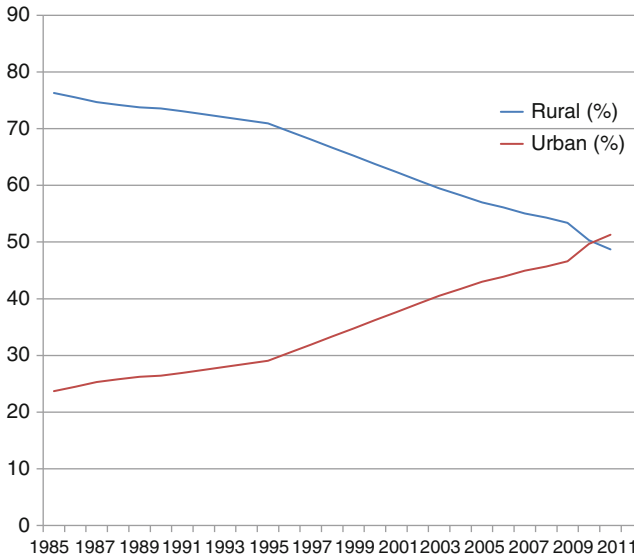


Fig. 2.2 Chinese rural and urban population between 1985 and 2010. (Source: Chinability and The national Bureau of Statistics of PRC)

In Fig. 2.2, it can be seen that as of 2011 in China, more people are living in urban than in rural areas. Probably, the worldwide trend of urbanization will be continued. For 2030, the UN expects the partitioning of rural and urban population to be 38.1 % and 61.9 %, respectively (UN). McKinsey expects the contribution of cities to GDP to grow from 75 % to 95 % in 2025 (Hefele and Bade 2011). There is a possibility that in China, a major counter trend toward de-urbanization will come up. The reasons are the unhealthy living conditions and the enormous problems with mobility. Both lead to substantial loss of economic and social welfare. It remains to be seen how long this will be acceptable for urban population. As long as the cities remain economically more attractive due to higher wages and educated people have more chances in urban areas, the urbanization will continue till new opportunities in rural areas arise.

Demographics with regard to Green China need also a global perspective. The Chinese people are the most dispersed people of the world. Exact numbers are not known, but it is estimated that the worldwide Chinese community counts around five million people. This migration has historical reasons going back till the nineteenth century when overpopulation, wars, and famine but also good prospects in the Western world stimulated Chinese to try their luck. Because the Chinese culture emphasizes education and being successful, many overseas Chinese grabbed the chances in the free economy and become successful. In Asia, the Chinese live in countries like Indonesia, Malaysia, Thailand, Vietnam, and Singapore. Although they only are 6 % of total local population, they possess 70 % of total held private and corporate capital (Kleining 2008). Since the opening

up policy, China faced a serious brain-drain problem. The most brilliant ones went abroad by studying abroad. In the USA, by 2006, about three million Chinese expats are studying, working, and doing business. In European countries, Chinese do show same migration behavior.

The Chinese government is trying to get the brightest ones to get back to their home country. It remains to be seen whether this attempt of reversal to bring back lost sons and daughters will be successful. In the eyes of Chinese, they are bananas, yellow outside and white inside; only those who can use the best of the two worlds can be successful. Many may not suit the real Chinese society anymore. Moreover, going back to overcrowded dirty cities with intense competition and leaving nice careers and location elsewhere needs tough considerations. Even if they stay abroad, they will still contribute to the development of Chinese economy by doing business with their families and friends. The Chinese network is one of the reasons that Chinese export could flourish.

2.4.2 Economic Trends

The biggest economic megatrend will be the transformation from manufacturing economy toward an economy based on innovation. The result will be that other links like R&D, design, marketing, sales and distribution, and recycling in the value chain need to be developed. The main background is rising labor costs, shortage of skilled labor, and the slow appreciation of the Chinese currency RMB. China will stimulate both domestic consumption and foreign direct investments. The latter is necessary to secure natural resources but also to create markets for Chinese products and services. The higher value of RMB will make it more attractive to spend money on domestic or even imported products. The export of low added value will become less important in the GDP growth; export policy of China will be diverse toward exporting high added value products to developed countries and low added value products to underdeveloped countries.

The steep rising income levels can be seen from Fig. 2.3. Figure 2.3 also shows the increasing gap between rural and urban income levels.

The net income levels in urban levels are substantially higher than in rural areas, and it explains the increasing urbanization. But as observed before, the urban high-income groups pay a high price with unhealthy air pollution and immobility.

China's future economic growth will be a combination of exploring global and regional economic interest and stimulating national economic potentials and resources (natural resources like rare earth, human resources, and capital resources). Furthermore, market pull and high-tech-based push economic policies will be more important than only capital based. Both the market pull and high-tech push will be dependent on innovations. China's strategy for becoming a superpower will be dominantly based on economic power and less on military power. Chinese military budgets have risen and will so in the near future. But the main instrument for conquering markets will be economic power and the military power as a sign of regained world leadership. Both current industries like agro-food and

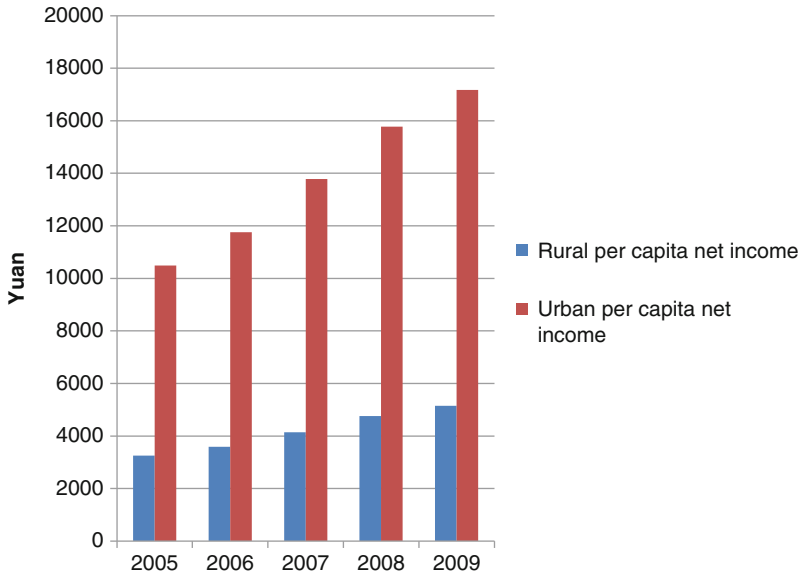


Fig. 2.3 Rising income levels and widening income gap in rural and urban areas. (Source: China daily 020310 / National Bureau of Statistics of PRC)

telecommunications and the new industries like renewables, eco-mobility, biotech, and nanotech will be part of the future economic power. In both old and new industries, strategic innovations will transform the business.

The megatrends of urbanization, rising income levels, and sustainability stimulate metropolitan agriculture concepts. Local food production fits to shorter value chains or even value circles. Similarly, local energy production sometimes combined with local water production depending on the local situation will make the megatrend toward localization increasingly relevant. The expectations of McKinsey and United Nations about ever increasing urbanization is based on the assumption of a continuing dichotomized population living in either the (mega)city or the rural area.

This simple duality assumption can be doubted for one major reason. Based on the theory of strategic innovation, the bottlenecks of the (mega)cities will lead to a reinvention of urban–rural areas (van Someren 2005a; van Someren and Nijhof 2010). Strategic innovations will challenge the rural–urban dichotomy thinking of policy makers and business leaders and lead to new forms of regional growth areas. These regional growth areas, the border line between city and rural areas, will disappear, and new eco-city–regions are the future. Furthermore, together with the rejection of the dichotomy rural–urban and its replacement by regional growth poles, new opportunities emerge.

In the coming years, a coexistence of high-tech industry, low-tech industry, and no-tech industries such as services will characterize the Chinese economy. A shift

of low added value activities will be outsourced to other countries in Asia or other regions in the world. The creation of an innovative economy is a necessity to deal with rising labor costs and solving the sustainability issues with new solutions. This is also what the Chinese central government tries to achieve: a turnaround from low cost, low tech, high volume, low added value to high tech and high added value economy. The current Chinese economy does not only consist of cheap labor-based manufacturing like clothing and assembling computers but also imitated-improved middle-high-tech products like solar panels and high-speed trains. In these industries, the first-generation entrepreneurs created the first-generation Chinese champions and sometimes multinationals. But their growth model was based on low cost and copycat technology.

The shift toward high-tech sector is not just another step or a next level. Despite their education and entrepreneurial spirit, it will be extremely difficult to achieve the desired high-tech knowledge economy. The Chinese first-generation companies will experience difficult times for two reasons. First, governmental focus and sometimes support will shift to high-tech sectors, and investing in old sectors might be the Chinese black holes. Secondly, becoming a true innovative organization or economy is extremely difficult as the experiences in the EU and the USA show. Competition based on innovation is completely different than low-cost rivalry. Moreover, organizational innovation like bottom-up processes will be key to being successful, and this is one of the big leaps forward the Chinese have to take. Therefore, strategic innovations and not technology will dominate future trends toward a sustainable society.

The economic focus in the past decades was on building an infrastructure like bridges and railroads, housing, and basic industries like chemicals and energy. For the future, less tangible sectors like service, health care, and finance will get more attention. In the banking sector, the appliance of risk management and monitoring is underdeveloped. Of course, technical instruments can and are copied from Western banking institutions. But more important than possessing the technology is the application of the instruments in commercial situations. The latter is the Achilles heel of Chinese banking industry. Because of the increased intensity of direct foreign investments and cross border mergers and acquisitions, the practical use of these financial instruments becomes relevant for being successful in the coming decades.

The global network of Chinese mentioned before can be seen as a threat or opportunity. On the one hand, the Chinese community prefers to do business between themselves based on their Guanxi. All the acquired knowledge and experience is then transferred to Chinese organizations and networks. On the other hand, the Chinese expats meanwhile have also their interests in country of choice. Very often, these Chinese connections are not properly used by their Western counterparts and opportunities are missed.

Here, the interpretation of time within a society will form a separate megatrend. Time can be regarded to be a production factor and has economic relevance. The time dimension is often neglected when searching for megatrends or creating strategic innovations. The reason is that they are not always so obvious and are

often a hidden aspect of economic organization (van Someren 1991, 2005a). For example, reducing waiting time in a manufacturing process can have much greater positive effects than speeding up the process by expensive IT solutions neglecting the waiting time problem. The just-in-time manufacturing system is an illustration of this time-related phenomenon.

Therefore, time-related aspects are crucial for understanding long-term developments and their underlying strategic innovations. In the USA, a 24/7 attitude is part of the way the society is organized. In the EU, the 24/7 mentality is much less present. Holidays in the USA are shorter than in the EU. Holidays in the EU are almost a holy right of the working class. It also explains the difficult political discussions around the topic of retirement age and working hours. But also sustainability leads to a circular time interpretation instead of the Western linear time notion. The background is partly religious. The Christian religion is based on birth–life–death or a linear time line interpretation. In the economy, this birth–life–death scheme has been translated as input–throughput–output industrial mantra. It represents a throwaway society in which reuse or recycling had no place. In Asia, the Buddhist religion has circular time interpretation. Life is a long circle of sometimes many thousands years, and people come back. The harmonious society is based on this central thought of circular time.

2.4.3 Social Trends

The almost unbridled economic growth and hunting for double digit GDP growth resulted in several wanted and unwanted social side effects. From a historical perspective, the regained power pushes China at the top of the nations which other nations respect and sometimes fear. The humiliation of former foreign powers occupying the country and governing large relevant parts of China can now put away as history. The rebuild self-esteem unleashes a feeling of restoring old norms and values placing China back in the center of the world. China regains its status of superpower. As a result, it will increasingly behave like a superpower. Already now successful Chinese entrepreneurs can sometimes become arrogant when dealing with Western counterparts. The paradox here is that adapted forms of Western capitalism are realizing the economic welfare and social well-being of the former communist thought leaders.

The current Chinese people are now focused on raising personal income levels and acquiring personal wealth. Materialism dominates. But Chinese have always been taught to pursue immaterial values as well. The old traditional philosophical pillars of Chinese society such as Confucianism, Taoism, and Buddhism all stress the importance of immaterial alongside the material values. These immaterial values are deeply rooted in Chinese society and people.

Therefore, the economic success now overshadows the immaterial values, but there will be a turning point. The first signs are already coming to the surface. People rebel against local politicians about issues like polluted baby milk and expropriation of land for property projects. It is a rebellion of the have-nots against the haves. The have-nots are aware of their rights and do not accept anymore the overruling of profit-seeking project developers and entrepreneurs. The current gap between the classical haves like politicians, civil servant, scholars, celebrities, overseas successful Chinese, and entrepreneurs and the have-nots will be closed. The have-nots will be more respected. The anonymous have-nots such as the Chinese Gandhis, local heroes, self-made people, and even happy homeless will get face. As soon as you get face, you get power and respect.

The internet and mobile culture will create more space for different thinking and behaviors. These technologies enhance the power of the educated and less educated individuals and of individuals living in urban or rural areas. But the acceptance of a group will stay important in the Chinese society. Network (Guanxi) can be built in a complementary different way, for example, through social networks. The growth of internet and mobile use and the role of Weibo (Chinese Twitter) and Tudou (The Chinese YouTube) will broaden the communication possibilities for Chinese people. But as every technology, it also depends in what direction and for what purpose the appliances of technologies are developing. The current constraints are in the direction of political statements or political movements. But this trend toward a more regulated Internet could be seen on Internet on January 18, 2012 when Wikipedia and other sites were voluntarily closed for one day as a protest against upcoming American Internet ruling. Therefore, it is not the technology itself that changes the world but how we apply it and with what aims.

The power of the powerless can paradoxically turn into a determining force for the Chinese ruling leaders. The reason is that not the further economic success will determine the acceptance of the current Chinese governmental organization but the ability to deal with the increasing social inequality and the power of the powerless. The gap between the poor and the rich, the economic and social discrepancy between the Western and eastern part of the country, has already been identified as an important issue by the ruling party.

It is not only the economic and social inequality causing problems. Also within social equal groups, differences come up. The unhappiness of the few and generation conflicts are such social phenomena. The unhappiness comes from an unhealthier longer life, due to pollution and upcoming diseases based on unhealthier food patterns. For example, a higher fat consumption leads to typical Western diseases like high blood pressure and heart diseases.

Furthermore, generation conflicts appear on, for example, caretaking for parents or saving instead of spending money. Family ties are still very strong or even the strongest of all social networks, but at the same time, some profound changes are taking place. In China, it is very common to live with several generations under one roof. The social reason is that children are raised to take care of their parents or even

grandparents. The economic reason is that household costs could be reduced because of the spread among the generations. But due to economic prosperity and the upcoming social security system and retirement homes, the elderly are separated from the younger generations. Taking care of parents in a physical form will be replaced by an economic form. The young generation will buy off their duty to take care of their parents. This is a true social revolution.

2.4.4 Technological Trends

Chinese are fond of technology and technical gadgets. For example, the hype of iPhones and iPads has led to small riots around Apple stores. It explains why in the eyes of Chinese, innovation is equal to technology. Technology fits to their preference for products which you can touch and do something concrete. The paradox here is that non-technological part of innovation gets much less attention although the future of Green China will be determined by these nontechnical innovations. Examples are the creation of a better health-care system and service sector. Moreover, the recent policy of indigenous innovation is largely dependent on strategic innovation of which the nontechnical aspects are by far the key success factors.

For Chinese, the practical aspects of innovation are more important than the fundamental inner workings or basic theory. The how is more relevant than the why. This is a defensible position as long as emulation of Western technology is at the core of most value chains. As soon as more radical technologies have to be developed in-house, the fundamental part of R&D instead of improved products becomes more relevant. The creative copycat approach has to be combined with innovative entrepreneurialism.

Powerful nontechnical instruments will be Chinese technology standards and globally organized R&D centers dominated by Chinese organizations. In some areas, these centers have already been set up. The copycat behavior has enabled to catapult the Chinese renewable energy sector to a worldwide leading status. The simple complexity of applying and selling existing technology for windmills and solar panels explains the current success. But the future of the renewable energy sector requires new technologies and business models. The simple complexity will be replaced by complex new strategic innovations.

In case of China, the aim and dream to become an economic superpower is made dependent of becoming a high-tech superpower. Most high-tech areas are announced to be strategic areas such as biotech, high speed, and airplane industry. Space and deep sea technologies are rather underdeveloped industries but will become relevant. On the short term, control of space is necessary for controlling satellites and with that economic and military infrastructure. On the long term, commercial transport through space and even economic activities like labs and mining do have potential. Deep sea technology is necessary for future mining and using natural resources like offshore windmills.

The global policy of China has a multiple aim: becoming an economic and financial super power, a high-tech controller, and Green in China instead of Made in China. Green China will be an active nonmilitary superpower but an active power in regional economic alliances to secure their resources and supplies.

2.4.5 Ecological Trends

Maintaining harmony is one of the oldest principles of living a decent and respectful life in China. Keeping up harmony can be applied upon one's personal life. It explains why Chinese accept a small lie for trying to find harmony. In a Western context, it is more the opposite: Telling the truth is preferred above harmony. But harmony also holds for society at large.

In this respect, sustainability defined as balancing economic, social, and ecological aspects fits very well to China's history and core norms and values. In theory, it fits better to Chinese history than Western history. When looking at the numerous ecological disasters in nowadays China, one may be amazed about the principle of harmony because it seems to be totally absent. That is true; it was in most instances indeed absent in the recent decades. But the notion of harmony does not indicate nor say something about the time aspect. Therefore, it depends on the time horizon when the balance leading harmony should be restored. The decades of economic domination will now be brought more in balance by paying attention to social and ecological issues. The Triple P harmony will be restored on different levels and we give some illustrations.

In different regions in the world, you can find hell and paradise on earth. The same holds for China where very polluted regions and beautiful nature are present. Especially the big cities and the megacities have become more or less point emission areas. Furthermore, many large industrial areas in the countryside have been heavily polluted by all kind of emissions and other detrimental ecological effects. But it would not be China if there are no opposite developments.

China was one of the first countries which has made plans for large-scale eco-cities. On a small scale, many cities around China already took the first step by quickly introducing LED lighting and flexible solar foil on windows of, for example, hotels. These brownfield initiatives were succeeded by the next step of greenfield eco-cities. The master plan of greenfield eco-cities took into account all issues including energy, water, air, mobility, and so on. These plans were soon followed by the next level plans of creating sustainable industrial areas where closed material cycles and interconnected primary and secondary processes between various firms would create an ideal sustainable business park.

Besides city planning, the enormous demand for energy unleashed the creation of companies focusing on renewable energies. Within a decade, these windmill and solar panel companies became world market leader measured in numbers of goods sold. But it was often not the domestic Chinese market but foreign markets which allowed the increase of output. For example, the German feed-in tariff tax system

for renewable energy attracted Chinese suppliers. The Chinese overcapacity found a way out in a profitable market.

Besides energy, also water issues like droughts, drinking water, industrial water, and sanitation are of extreme importance for the future of Green China. The water pollution problem is immense and multiplied by the focus on manufacturing activities. With regard to access to water resources, China is in the danger zone which can hamper further economic development. Already since the 1980s, the Chinese government was aware of these megatrend and some measures have been taken. For example, in the Huaihe basin, more than 1,000 paper mills were closed and replaced downstream after a study showed the imbalance between added economic value and ecological damage with a larger negative economic value (Wang 1996). However, these kinds of measures could keep up with the speed, scale, and scope of economic development. But for the future, water management is a core issue.

Of the big sustainable issues like climate change and natural resources, biodiversity is the most difficult one to grasp, at least for business managers. How can biodiversity have an impact on my bottom line is a question on which they have mostly no answer. For food corporations confronted with diminishing stocks of seafood, the biodiversity issue is clear. But for car manufacturers is less clear. Still, the trend of decreasing diversity can have profound impact on agro-food products, and linkages and dependencies between industries based on biodiversity are underestimated. The starvation of bees showed the impact on honey production, reduced food supplies for animals leading to shortages of food and disappearance of natural enemies, and a distorted nature. In economic terms, huge capital losses are the result which can hardly be rebuild when extinction of species is the end game.

The pragmatic Chinese found a market opportunity of man-made nature and man-made biodiversity. Some Chinese institutes started to collect almost extinct species worldwide and by means of a breed program increased the volume of the species. Their motivation was less ecological based but more economic driven. The man-made biodiversity is a Chinese-made trend combining ecological and economic interests.

2.4.6 Political Trends

Before the financial crisis, Western politicians, NGOs, and the general public have made comments about the Chinese political system. Human rights were a favorite topic during official visits. After the financial and euro crisis, the same politicians were begging for Chinese money to solve the euro crisis, and nothing was heard about human rights. On a micro level, during many congresses, one could hear the criticism on the long working hours of employees in Chinese factories. In Western eyes, it was inhuman and should be forbidden. The Chinese interpretation including the factory worker herself or himself is that finally he or she got a chance to leave the countryside and earn money. This start was necessary to build up the manufacturing base.

Table 2.2 Chinese political groups

Color	Group	Agenda
Red	Red princess	Stimulate GDP growth and economic development and making China number one
Black	Black conservatives	Restore old values of communist future of China
Blue	Blue elites	Creating powerhouses in the form of firms and regions
Gray	Gray party	Balancing future opportunities with Chinese governance span of control
Yellow	Yellow progressives	Developing next level strategies and new sustainable growth curves
Pink	Flower power	Fostering new social behavior or fall back in traditional role from a position of wealth

The pendulum is now swinging back a little to restore the balance by demand for higher wages and better working conditions. This is politics in a nutshell. It is also dynamic economic development in a nutshell. It took Europe more than 2,000 years to establish a more or less democratic system, and still, we have to fight wars to secure our oil supplies, and we do business with nondemocratic regimes to get resources or sell our products. Our message here is that one should be very careful with judging others knowing that there is not an ideal state yet. This book is not about judging any kind of political system. We however do need to know what the historical background is, what the current context is, and in which direction it will move and develop.

For this purpose and in order to give insight into the societal background and the different groups, Table 2.2 gives an overview.

Within the Chinese political arena, a wide range of groups coexist with changing influence and power in time. It implies that there is one political party indeed, but there are groups with different opinions and interests about the future of China.

The last decades belonged to the red rights fostering economic development. The red rights are programmatic communists who wanted to bring welfare to Chinese people. Very often, they come from communist elite families which have the privilege for very good Beta studies. They can be found in both central and local governments, and they took their chances after the less successful economic reforms of Mao. Still Mao is respected for his historical achievement of keeping China a united country, giving every Chinese a rice bowl, and his ideal to achieve a dominant position in the world. Only his instruments were not up to date.

The right wing of the party changed that but kept alive the dominant position of the Communist party. There are some reactionary powers who want to restore the old situation and give much less freedom for economic initiatives and development. These are the black conservatives, and they could indeed fall in their own pitfall named the domestic black hole. But they can gain power as soon as the social tensions are not solved.

This puts a heavy responsibility on the current blue elites consisting of governmental and private company leaders to take sustainability seriously. It is their duty

and task to transform the Chinese economy into the desired harmonized society where ecological detrimental effects are abandoned and every Chinese can take part in the wealth creation. The rice bowl needs to be replaced by feast meal. And everybody must have the opportunity to sit at the table. If they fail, China will fail.

The blue elites can only succeed if the gray party participates. Only a few of the gray party are members of the blue elites; the others are middle class or belong to the lowest level. But the gray parties still have, based on their seniority, a relatively substantial influence on decision making in their families and networks. Based in numbers, the gray ones have little formal high position, but they are the biggest group. It is the mass and their relatively low income being a problem for current officials that makes the power. They are also respected, but the future gray ones are the ones who have built up nowadays China.

The yellow progressives being the civil servants and publicly owned company managers will carefully follow these shifts in power and direction. The yellow progressives are responsible for the creation and development of future laws, industries, and foreign activities. Sustainability will be key in their plans, and even more importantly, the aim of innovative society requires certain freedom of the mind. Only then the new industries will foster and be a rival to Western industries. It is again balance act of central power versus the power of individual creativity resulting in a prosperous sustainable shining China or a clouded polluted China. In this respect, it might be the flower power which can form the linking pin between all the other color groups.

Women represent the pink flower power, and they show two opposite behaviors. On the one hand, women now take their chance and are the driving force of becoming independent of traditional family hierarchy and domination of the men. They become active in government, government-owned organizations, and private business and spend their money. On the other hand, women also fall back in traditional role of staying at home and taking care of family. It also implies that in the background, the women are the decision makers or at least take big influence on relevant future issues and not only the men. Flower power grows everywhere, and the flowers are stronger than in the past. Therefore, feminization in China takes another road than in the West.

2.5 The Challenge of a Colorful China

The greening of China is not a stand-alone topic in which sustainability can be separated from other renewal processes but a solution for the colorful future of China. But even if we understand and know all the trends, it is not a ticket to success. The shifting international and national political colors force us to operate in ever changing conditions. It is like the metaphor of the rainbow colors expresses: The future can be peaceful and harmonious as the Chinese advocate in their official statements. But the opposite is still possible as well, and Chinese leaders know this very well but do not express it. The creation of a sustainable China is the rainbow treasure, but we know we have to work and fight for our treasure.

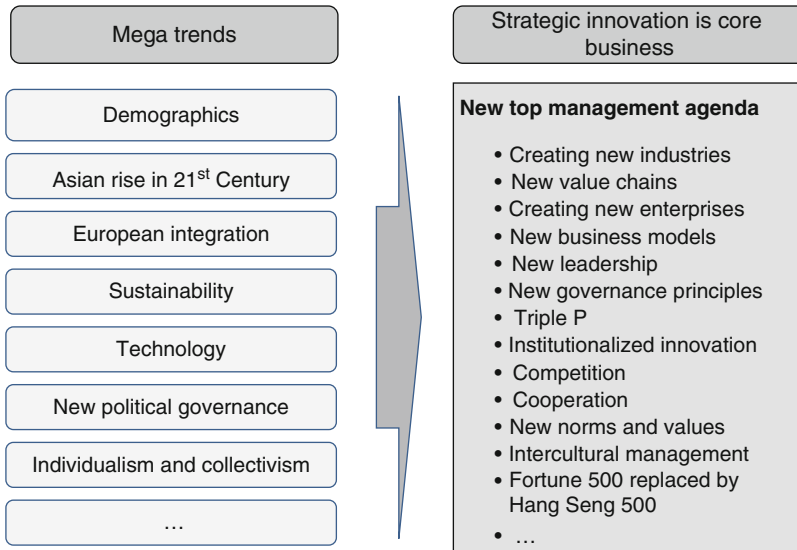


Fig. 2.4 Key challenges for next 20 years. (Source: van Someren, 2010)

The rise of China will be green indeed, but the way sustainability will be realized has connections with a broad range of other topics which together form the setting of the start toward a future world order. These aspects should be integrated in our strategic answer; otherwise, we try to integrate sustainability in our Western way of thinking whereas a broader perspective is necessary. Only then we are able to create future market structures, organizations, and behavior which will lead to the desired outcome of a sustainable world. The wider interpretation of sustainability leads to the integration of following topics which will determine the future world order and which need all an answer. In Fig. 2.4, these are mentioned.

In short, the relevance of each topic can be made clear in a few statements. Demographics determine societal development due to age structure, ethnic and cultural features, knowledge level, labor supply, future demand for products and services, and its accompanying resource intensity. Asian dominance respectively Chinese supremacy is very likely, and this will change how the world will tick. European integration especially on a political and economic governance level will be key for European key member states.

With the rise of Asia but maybe also Arabian, South American, or even African states, Western norms and values will become less prominent than in past centuries. The same holds for governance structure. The increase of the participation of other than Western countries in world economy requires systematic innovation otherwise no position can be conquered, maintained, and enlarged. The core sustainability issues as mentioned in Fig. 2.4 are connected to these other challenges. All these challenges can only be realized when strategic innovations are introduced. Strategic innovations are necessary in every society and private as well as public

Table 2.3 Green China challenges based top management issues

Green China challenges	Top management issue
Government	Adapting to changing laws and regulations
	Governments as partners
Market development	Awareness of Chinese for nontechnical solutions
	Coping with protected markets and supported Chinese firms
Technology	Chinese requirements and specifications
	Focus on non-imitable innovations instead of technology
Finance	Access to Chinese finance sources
	Avoiding black hole and twin star scenarios
Business model	Profitable business in China is key question
	Create Chinese business model
Cross-cultural management	Leading the Chinese
	Dealing with Chinese business partners

organization. These challenges will not be the hypes of the future but key areas for future prosperity.

In this context, Green China is not a separate or stand-alone topic but is an integral part of all the necessary changes toward future of the West and China. This holistic way of thinking fits with Asian way of dealing with larger issues. But Westerners will have to get used to this integral approach and abandon their disintegrated way of solving problems. Sustainability is not only about emissions and CO₂ but about dealing with worldwide key challenges related to new world order of doing business.

But sustainability is only one top issue; others are China strategy, creating global corporations and institutionalized innovation. With the theme of Green China, these topics come together simultaneously. These key challenges change top management agenda. This change of perspective is crucial in finding the right answers.² In Chinese words, this rainbow is a simplification of the ultimate dream of a harmonious society. Harmonious society within the rainbow implies a trade-off between different interests and performance indicators. This is exactly what a green society is about because sustainability boils down to the trade-off between and mutual reinforcement of social, ecological, and economic dimensions.

The challenges of the Green China require a specific top management agenda as mentioned in the previous section. In Table 2.3, a few examples are given.

Taken together, the Green China challenges form a separate universe with their own rules.

The Green China challenges confront Western organizations with unique top management issues. The Chinese government will of course focus on Chinese interests. But Chinese governments are not always on one line with each other, and governmental organizations can be rivals of each other. Moreover, laws and

² van Someren, 2005a.

regulations can be used against foreign intruders. Still you need government as your partner. The access to and development of Chinese market will partly be based on technology. The better Western organizations are able to mingle technology with nontechnical solutions, the better the chances of survival. This combination will also be a force weapon against governmental supported Chinese firms. The ability to adapt to Chinese requirements and specific demand combined with less easy to imitate innovations keeps Western organizations in the race with Green Dragons. Only organizations who know how to play the Chinese game in cooperation with Chinese business partners will have access to Chinese finance sources. The greatest risk for Western organizations is to fall in the trap of black hole and twin star scenarios. Above aspects require a Chinese business model, but for business, there is only one rule: Earn money and make profit. Cross-cultural management is necessary to understand Green China and to get a part of the rainbow treasure.

Therefore, the Greening of China implies revolutionary changes on many fronts which will dramatically change our world. Green China is about roles of government, alternative ways of market organization, and roles of networks, individual organizations, and individuals on a global scale. In fact, it is about a new world order. The West and China will have different views on this new world order.

References

- Kleining, J. (2008). Dispersed economic power? Overseas Chinese between discrimination and success in business. Konrad Adenauer Stiftung, Berlin
- Naisbitt, J., & Naisbitt, D. (2010). *China's megatrends: The 8 pillars of a new society*. New York: Harper Business.
- Hefele, P. & Bade (2011). *Re-inventing the city? Domestic migration and urbanisation in the People's Republic of China*. Berlin: Konrad-Adenauer-Stiftung e.V.
- Someren, T. C. R. van (1991, June). *Innovatie, Emulatie en Tijd. De rol van de organisatorische vernieuwingen in het economische proces*. Tinbergen Institute Research Series, no. 9, (diss.).
- Someren, T. C. R. van, & Nijhof, A. (2010). Triple P business development in the Dutch agro-food sector. Van Gorcum Publishers. Assen.
- Someren, T. C. R. van, & Someren-Wang, S. van (2009, September 22). Nederland moet zich spiegelen aan China. *Financieele Dagblad*, p. 6.
- Someren, T. C. R. van, & Someren-Wang, S. van (2011, December 2). Kans na harde landing. *Financieele Dagblad*, p. 7.
- The China Greentech Report (2009). MangoStrategy.
- Someren, T.C. R. van (2005a, May). *Strategische Innovationen. So machen Sie Ihr Unternehmen einzigartig*. Wiesbaden: Gabler Verlag.
- Wang, S. (1996). *Study on Chinese water environment carrying capacity*, Beijing, China: Beijing Normal University.